2022 Annual Groundwater Monitoring and Corrective Action Report

Martin Lake Steam Electric Station Ash Pond Area - Rusk County, Texas

Prepared for:

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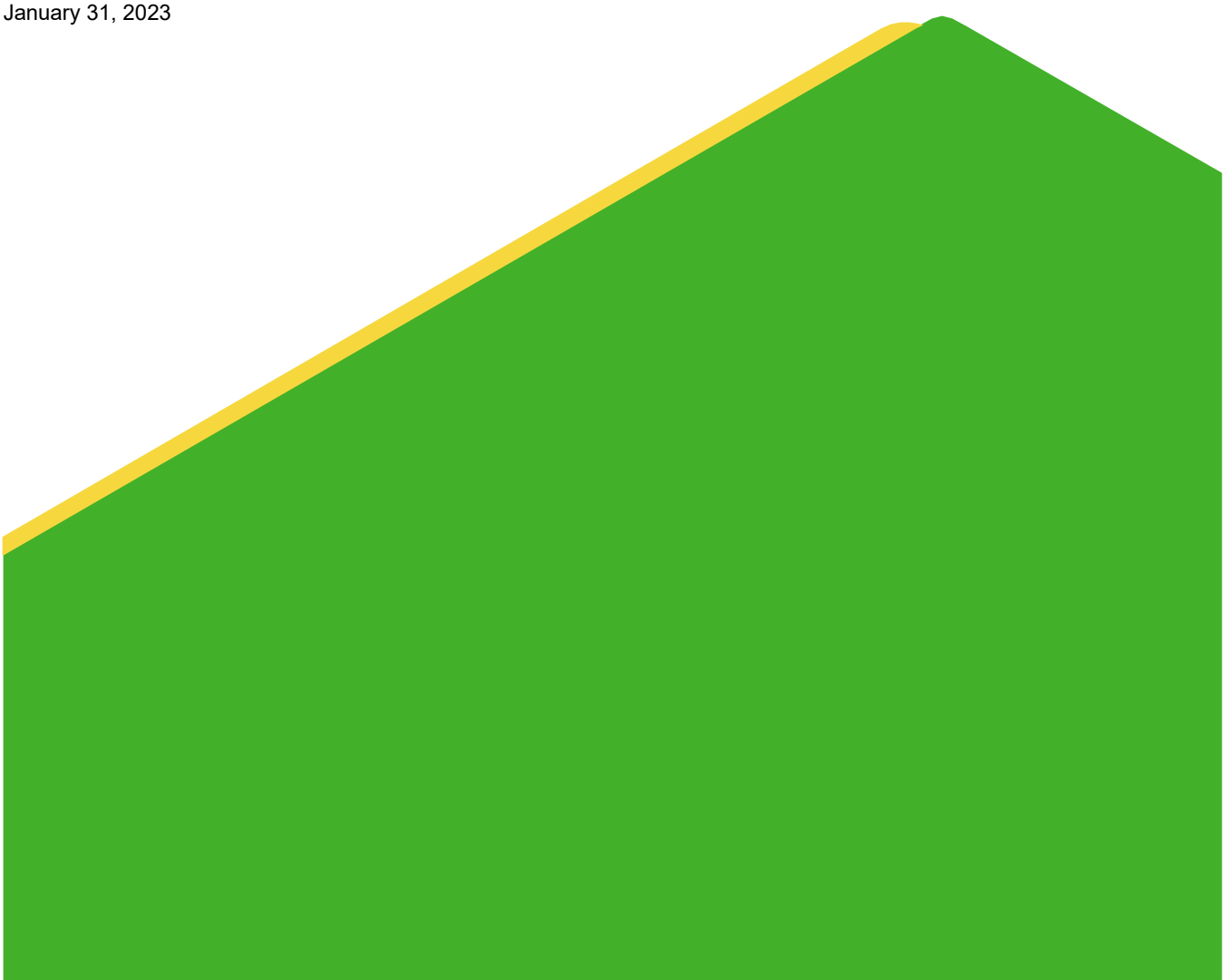
January 31, 2023



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ACRONYMS AND ABBREVIATIONS

ACM	Assessment of Corrective Measures
CCR	Coal Combustion Residuals
C.F.R.	Code of Federal Regulations
GWPS	Groundwater Protection Standard
MCL	Maximum Concentration Level
mg/L	Milligrams per Liter
MLSES	Martin Lake Steam Electric Station
MNA	Monitored Natural Attenuation
NA	Not Applicable
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
T.A.C.	Texas Administrative Code
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

WSP Golder has prepared this report on behalf of Luminant Generation Company LLC (Luminant) to satisfy the 2022 annual groundwater monitoring and corrective action reporting requirements of 40 C.F.R. Part 257 and 30 T.A.C. Chapter 352 for the Ash Pond Area (the "CCR units") at the Martin Lake Steam Electric Station (MLSES) in Rusk County, Texas. The Ash Pond Area CCR units include the East Ash Pond (EAP), West Ash Pond (WAP), and New Scrubber Pond (NSP). The CCR units and CCR monitoring well network are shown on Figure 1.

At the beginning and end of the 2022 reporting period, the CCR units were operating under an Assessment Monitoring Program as described in §257.95. The Assessment Monitoring Program was established on July 16, 2018. Concentrations of Appendix IV constituents at statistically significant levels (SSLs) above groundwater protection standards (GWPSs) were identified in January 2019 based on data collected in 2018 for beryllium, cobalt, and lithium in the Ash Pond Area. An Assessment of Corrective Measures (ACM) was initiated on April 8, 2019 and completed on September 5, 2019 in accordance with §257.96 to address the Appendix IV SSLs. A public meeting was held on November 13, 2019, pursuant to §257.96(e), to discuss the results of the ACM. A Remedy Selection Report (Golder 2022a) was completed in January 2022 in accordance with the requirements of §257.97. Monitored natural attenuation (MNA) with source control measures was selected as the remedy to address the Appendix IV constituents observed at SSLs. A Site-specific feasibility study to evaluate MNA as a potential groundwater remedy for the Appendix IV constituents observed at SSLs was performed in accordance with guidance and best practices promulgated by the USEPA (USEPA 2007a and 2007b) and Interstate Technology and Regulatory Council (ITRC 2010). Summary reports documenting the MNA feasibility study were included as attachments to the Remedy Selection Report.

During 2022, SSLs above GWPSs were observed in the Ash Pond Area for beryllium in wells H-31 and H-32 and cobalt in wells H-28, H-31, and H-32.

1.0 INTRODUCTION

The CCR Rule (40 C.F.R. 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. TCEQ has adopted portions of the federal CCR rule at 30 T.A.C. Chapter 352 (Texas CCR Rule), and USEPA published its final approval of the Texas CCR rule on June 28, 2021. *See* 86 Fed. Reg. 33,892 (June 28, 2021). The Texas CCR Rule became effective on July 28, 2021, and it adopts and incorporates by reference the requirements for the annual groundwater monitoring report located at 40 C.F.R. §257.90. *See* 30 T.A.C. § 352.901. It further adopts and incorporates by reference the Federal CCR Program requirements for detection and assessment monitoring in 30 T.A.C. §352.941 and 30 T.A.C. §352.951, respectively. Pursuant to 30 T.A.C. §352.902, this report will be submitted to TCEQ for review no later than 30 days after the report has been placed in the facility's operating record. 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 §257.90(e) 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.

(6) A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:

(i) At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;

(ii) At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;

(iii) If it was determined that there was a statistically significant increase over background for one or more constituents listed in Appendix III to this part pursuant to §257.94(e):

(A) Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and

(B) Provide the date when the assessment monitoring program was initiated for the CCR unit.

(iv) If it was determined that there was a SSL above the groundwater protection standard for one or more constituents listed in Appendix IV to this part pursuant to §257.95(g) include all of the following:

(A) Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase;

(B) Provide the date when the assessment of corrective measures was initiated for the CCR unit;

(C) Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and

(D) Provide the date when the assessment of corrective measures was completed for the CCR unit.

(v) Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection; and

(vi) Whether remedial activities were initiated or are ongoing pursuant to §257.98 during the current annual reporting period.

2.0 MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

WSP Golder collected the initial Detection Monitoring Program groundwater samples from the Ash Pond Area CCR monitoring well network in September 2017. The evaluation of those data was completed in 2018 using procedures described in the Statistical Analysis Plan (Golder 2022b) to identify statistically significant increases (SSIs) of Appendix III parameters over background concentrations. The Detection Monitoring Program sampling dates and parameters are summarized in the following table:

Detection Monitoring Program Summary

Sampling Dates	Parameters	SSIs	Assessment Monitoring Program Established
September 21, 2017	Appendix III	Yes	July 16, 2018

Alternate source evaluations were inconclusive for one or more of the SSIs. Consequently, an Assessment Monitoring Program was initiated and established for the Ash Pond Area CCR units in 2018 in accordance with §257.94(e)(2).

Golder collected the initial Assessment Monitoring Program groundwater samples in June 2018. Subsequent Assessment Monitoring Program sampling events have been conducted on a semi-annual basis, as required by the CCR Rule. All CCR groundwater monitoring wells were sampled for Appendix III and Appendix IV constituents during the semi-annual sampling events.

The statistical background prediction limits used to assess Appendix III data and the GWPSs used to assess Appendix IV data are summarized in Tables 1 and 2, respectively. Appendix III and Appendix IV analytical data are summarized in Tables 3 and 4, respectively, and the laboratory analytical reports are provided in Attachment 1.

Concentrations of Appendix IV constituents at statistically significant levels (SSLs) above GWPSs were identified in January 2019 for beryllium, cobalt, and lithium. Notification of these SSLs was placed in the operating record on February 6, 2019 and was subsequently placed on the public website in accordance with §257.107(d). An ACM was initiated on April 8, 2019 pursuant to §257.95(g). A justification letter for a 60-day extension due to site-specific circumstances that delayed work on the ACM was certified on July 3, 2019 in accordance with §257.96(a). A copy of the extension justification letter was provided in the 2019 Annual Groundwater Monitoring and Corrective Action Report. The ACM was completed in September 2019 (Golder 2019) for the parameters detected at SSLs above GWPSs (i.e., beryllium, cobalt, and lithium), pursuant to §257.96.

Additional semi-annual Assessment Monitoring events were conducted in 2019 through 2022. Statistical analysis of the sample data was performed in accordance with the Statistical Analysis Plan (Golder 2022b) and USEPA Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities-Unified Guidance (USEPA 2009). The statistical analysis included an evaluation of statistical confidence intervals based on Appendix IV sample data collected from downgradient monitoring wells. SSLs are indicated if the 95% lower confidence limit of a particular parameter's data population exceeds the GWPS. SSLs above GWPSs were identified for beryllium and cobalt during each of the semi-annual groundwater assessments in 2019 through 2022. Notification of the beryllium and cobalt SSLs have been made after SSLs are identified in accordance with §257.107(d) and 30 TAC §352.951(d). SSLs for lithium have not been observed since 2018. Graphical representations of the statistical analysis performed on the data through 2022 are provided in Attachment 2.

The Assessment Monitoring Program sampling dates and parameters are summarized in the following table:

Assessment Monitoring Program Summary

Sampling Dates	Analytical Data Receipt Date	Parameters Collected	Constituents with SSL(s)	SSL Determination Date	Corrective Measures Assessment Initiated	Corrective Measures Assessment Completed
June 12-13, 2018	July 27, 2018	Appendix III Appendix IV	NA	NA	NA	NA
September 7, 2018	October 8, 2018	Appendix III Appendix IV	Be, Co, Li	January 7, 2019	April 8, 2019	September 5, 2019
May 14, 2019	June 14, 2019	Appendix III Appendix IV	Be and Co	September 5, 2019	NA	NA
September 10, 2019	October 11, 2019	Appendix III Appendix IV	Be and Co	January 8, 2020	NA	NA
May 13, 2020	June 12, 2020	Appendix III Appendix IV	Be and Co	July 22, 2020	NA	NA
October 6, 2020	November 6, 2020	Appendix III Appendix IV	Be and Co	December 7, 2020	NA	NA
June 4, 2021	July 8, 2021	Appendix III Appendix IV	Be and Co	July 14, 2021	NA	NA
October 4, 2021	November 10, 2021	Appendix III Appendix IV	Be and Co	January 10, 2022	NA	NA

Sampling Dates	Analytical Data Receipt Date	Parameters Collected	Constituents with SSL(s)	SSL Determination Date	Corrective Measures Assessment Initiated	Corrective Measures Assessment Completed
May 25, 2022	July 13, 2022	Appendix III Appendix IV	Be and Co	August 1, 2022	NA	NA
September 20-21, 2022	November 16, 2022	Appendix III Appendix IV	Be and Co	December 24, 2022	NA	NA

Notes:

NA: Not Applicable

3.0 KEY ACTIONS COMPLETED IN 2022

Assessment Monitoring Program groundwater monitoring events were completed in May and September 2022. The number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and the analytical results for the groundwater samples are summarized in Table 3 (Appendix III parameters) and Table 4 (Appendix IV parameters). No CCR wells were installed or decommissioned in 2022.

Water elevations measured in the CCR wells during the 2022 semi-annual groundwater sampling events were used to develop groundwater potentiometric surface maps, which are presented in Attachment 3. The inferred direction and magnitude of groundwater flow was generally to the east-northeast at approximately 8 feet per year.

As noted in Section 2.0, an ACM for the Appendix IV parameters identified at SSLs above GWPSs in 2018 (beryllium, cobalt, and lithium) was completed in September 2019. The ACM evaluated potential corrective measures alternatives, including retrofitting the Ash Ponds liner systems for purposes of source control. A public meeting was held on November 13, 2019, pursuant to §257.96(e), to discuss the results of the ACM. In accordance with §257.102(k)(5), a notification of intent to retrofit the Ash Pond Area liner systems was posted on June 29, 2020. Design of the Ash Pond Area liner system retrofit has been completed and construction is underway. The EAP and WAP were retrofitted in 2020 and 2021, respectively, with a new composite liner system meeting the requirements of § 257.70(b). A similar composite liner system is currently being installed in the NSP.

A Remedy Selection Report (Golder 2022b) was completed in January 2022 in accordance with the requirements of §257.97. MNA with source control measures was selected as the remedy to address the Appendix IV constituents observed at SSLs. A Site-specific feasibility study to evaluate MNA as a potential groundwater remedy for the Appendix IV constituents observed at SSLs was performed in accordance with guidance and best practices promulgated by the USEPA (USEPA 2007a and 2007b) and Interstate Technology and Regulatory Council (ITRC 2010). Summary reports documenting the MNA feasibility study were included as attachments to the Remedy Selection Report. The MNA feasibility study indicated that physical and chemical attenuation of beryllium, cobalt, and lithium is occurring at the Site. Concentrations of these constituents in groundwater are stable and the aquifer has adequate capacity to attenuate these constituents in a reasonable timeframe.

The MNA monitoring well network and MNA sampling and analysis procedures are the same as those used in the current Assessment Monitoring Program. As such, groundwater monitoring activities to satisfy MNA monitoring requirements are ongoing. The MNA groundwater monitoring program and source control measures that constitute the selected remedy have therefore been initiated and the requirement of § 257.98(a) for initiating remedial activities within 90 days of selecting a remedy has been met. The long-term effectiveness of the source

control measures and MNA as a remedy will be assessed based on the evaluation of sample concentrations against GWPSs and the evaluation of long-term trends in the sample data after the source control measures have been completed. An assessment of statistically significant trends typically requires a minimum of eight samples (USEPA 2009).

Per 40 C.F.R. § 257.98(c), the selected remedy will be considered complete when: (1) The owner or operator of the CCR unit demonstrates compliance with the GWPS established under 40 C.F.R. § 257.95(h) has been achieved at all points within the plume of contamination that lie beyond the groundwater monitoring well system established under 40 C.F.R. § 257.91, (2) Compliance with the GWPS established under 40 C.F.R. § 257.95(h) has been achieved by demonstrating that concentrations of constituents listed in Appendix IV to this part have not exceeded the GWPSs for a period of three consecutive years using the statistical procedures and performance standards in 40 C.F.R. § 257.93(f) and (g), and (3) All actions required to complete the remedy have been satisfied.

The Assessment Monitoring Program will continue at the Site based on the SSLs identified for beryllium and cobalt.

Notification of observed SSLs for the 2022 sampling events were submitted to the executive director via email as required under 30 TAC § 352.951(d) on August 5, 2022, for the May event, and January 6, 2023 for the September event.

4.0 PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the CCR groundwater monitoring program in 2022.

5.0 KEY ACTIVITIES PLANNED FOR 2023

The following key activities are planned for 2023:

- Continue the Assessment Monitoring Program in accordance with applicable provisions of 40 C.F.R. §257.95 and 30 TAC §352.951.

- A new composite liner system meeting the requirements of § 257.70(b) is currently being installed in the NSP. Completion of this liner retrofit is anticipated in 2023.

6.0 REFERENCES

Golder, 2019. CCR Assessment of Corrective Measures, Martin Lake Steam Electric Station – Ash Pond Area, Rusk County, Texas. September.

Golder, 2022a. Remedy Selection Report, Martin Lake Steam Electric Station – Ash Pond Area, Rusk County, Texas. January 18.

Golder, 2022b. Statistical Analysis Plan – Revision No. 1, Martin Lake Steam Electric Station – Ash Pond Area, Rusk County, Texas.

Interstate Technology and Regulatory Council (ITRC), 2010. A Decision Framework for Applying Monitored Natural Attenuation Processes to Metals and Radionuclides in Groundwater. Technical/Regulatory Guidance, December 2010.

USEPA, 2007a. Monitored Natural Attenuation of Inorganic Contaminants in Ground Water. Volume 1. Technical Basis for Assessment. EPA/600/R-07/139.

USEPA, 2007b. Monitored Natural Attenuation of Inorganic Contaminants in Ground Water. Volume 2. Assessment for Non-Radionuclides Including Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Nitrate, Perchlorate, and Selenium. EPA/600/R-07/140.

USEPA, 2009. Unified Guidance Document: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, EPA 530-R-09-007, March 2009.

Signature Page

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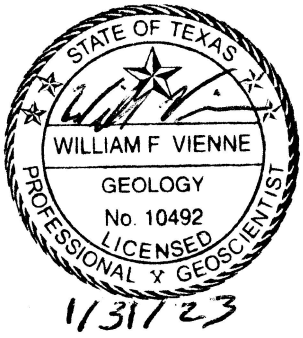

FIGURES

LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST
1/31/23

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED 4/6/17.

CLIENT
LUMINANT

PROJECT
MARTIN LAKE STEAM ELECTRIC STATION
TATUM, TEXAS

TITLE
DETAILED SITE PLAN - ASH POND AREA

CONSULTANT
wsp

YYYY-MM-DD	2020-01-23
DESIGNED	AJD
PREPARED	AJD
REVIEWED	WFV
APPROVED	WFV

PROJECT NO.	REV.	FIGURE
19122262	0	1

TABLES

Table 1
Appendix III Background Statistical Values
MLSES Ash Pond Area

Parameter	Statistical Background Value
Boron (mg/L)	0.602
Calcium (mg/L)	57.2
Chloride (mg/L)	153
Fluoride (mg/L)	0.4
field pH (s.u.)	4.63 7.6
Sulfate (mg/L)	365
Total Dissolved Solids (mg/L)	1,110

Table 2
Appendix IV Analytical Results
MLSES Ash Pond Area

Parameter	Groundwater Protection Standard
Antimony (mg/L)	0.006
Arsenic (mg/L)	0.01
Barium (mg/L)	2
Beryllium (mg/L)	0.004
Cadmium (mg/L)	0.005
Chromium (mg/L)	0.1
Cobalt (mg/L)	0.0564
Fluoride (mg/L)	4
Lead (mg/L)	0.015
Lithium (mg/L)	0.177
Mercury (mg/L)	0.002
Molybdenum (mg/L)	0.1
Selenium (mg/L)	0.05
Thallium (mg/L)	0.002
Radium 226+228 (pCi/L)	5

TABLE 3
APPENDIX III ANALYTICAL RESULTS
MLSES ASH POND AREA

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
Upgradient Wells								
H-26	10/21/15	0.602	24.2	69.2	<0.1	5.82	154	466
	12/14/15	0.0679	9.88	40.3	<0.1	5.91	76	280
	02/23/16	0.206	11.7	17.1	0.151 J	6.84	54	219
	04/05/16	0.289	11.8	27.8	0.199 J	5.89	57	213
	06/07/16	0.441	11.7	48.6	<0.1	5.98	72	278
	08/09/16	0.569	14	70	<0.1	4.63	91	354
	10/18/16	0.439	13.6	49.1	0.127 J	6.63	70	263
	12/11/16	0.537	11.9	57.6	0.161 J	6.73	69	236
	09/21/17	0.579	13.1	67.8	<0.100	6.88	70	288
	06/13/18	0.512	17	66.1	<0.100	6.74	67	313
	09/07/18	0.606	11.3	65.1	<0.100	6.85	61	265
	05/14/19	0.0507	85.2	61.7	0.140 J	6.83	88	453
	09/10/19	0.505	12	72.1	<0.100	6.75	69	265
	05/13/20	0.644	30.4	71	<0.100	6.89	58	280
	10/06/20	0.473	10.9	68.2	<0.100	6.53	52	252
	06/10/21	0.502	13.7	66.1	0.245 J	6.79	61	278
	10/04/21	0.409	12.1	72.8	<0.100	--	56	247
	10/04/21 DUP	0.412	12.6	75.6	<0.1	--	57	253
	05/25/22	0.410	12.8	67.8	<0.100	6.54	48.8	257
	09/21/22	0.414	12.6	71.9	<0.100	6.69	52.2	258
H-27	10/21/15	0.58	55.3	117	<0.1	6.24	328	800
	12/14/15	0.474	57.2	112	0.156 J	6.32	317	857
	02/23/16	0.523	53.8	113	0.101 J	5.82	344	811
	04/05/16	0.48	52.7	115	0.124 J	6.04	360	819
	06/07/16	0.319	10.6	40.5	<0.1	6.32	55	207
	08/09/16	0.462	54.3	124	<0.1	4.35	365	854
	10/18/16	0.477	56.5	114	0.144 J	6.87	336	868
	12/11/16	0.427	52.8	119	0.161 J	6.78	355	805
	09/21/17	0.48	61.1	122	<0.100	6.87	378	852
	06/13/18	0.404	57	110	0.208 J	6.52	372	850
	09/07/18	0.347	6.96	58.3	0.14 J	6.72	188	716
	05/14/19	0.35	61.8	132	0.159 J	6.78	406	897
	09/10/19	0.368	57.7	117	<0.1	6.77	365	841
	05/13/20	0.583	53.1	93	<0.100	6.92	274	786
	10/06/20	0.465	11.0	68.0	<0.100	6.55	52	253
	06/10/21	0.537	18	49.3	<0.100	6.74	46	219
	10/04/21	0.0511	39.5	84.7	<0.100	--	97	415
	05/25/22	15.6	199	155	1.47	6.85	1850	3180
	09/21/22	0.0632	21.5	97.6	<0.100	6.83	108	421

TABLE 3
APPENDIX III ANALYTICAL RESULTS
MLSES ASH POND AREA

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
H-33	10/20/15	0.0462	17.9	60.5	<0.1	5.78	120	415
	12/14/15	0.0596	10.7	59.6	0.136 J	5.73	110	403
	02/23/16	0.0656	11.2	56.1	0.125 J	6.92	111	625
	04/05/16	0.0659	14.9	58.3	0.14 J	6.31	113	589
	06/07/16	0.0571	20.1	67.5	<0.1	6.04	121	515
	08/09/16	0.0431	11.2	64.9	<0.1	5.13	120	442
	10/18/16	0.0539	11.1	59.2	<0.1	6.86	114	398
	12/11/16	0.0594	12.1	63.2	0.132 J	6.85	112	395
	09/21/17	0.0452	13.7	67.9	<0.100	7.02	107	412
	06/13/18	0.114	24	65.5	0.105 J	6.72	94	447
	09/07/18	0.112	22.4	66.2	0.135 J	6.73	97	489
	05/14/19	0.0592	68.6	80.4	0.166 J	6.81	104	559
	09/10/19	0.0631	44.1	86.1	<0.1	6.75	119	495
	05/13/20	0.103	24	84.3	<0.100	6.63	113	439
	10/06/20	0.0763	19.7	83.0	<0.100	6.88	108	417
	06/10/21	0.072	81.6	86.8	0.272 J	6.64	112	569
	06/04/21 DUP	0.0605	81.3	85.0	0.265 J	--	113	563
	10/04/21	0.0557	49.1	99.8	<0.100	--	117	499
	05/25/22	0.0625	28.9	87.7	<0.100	6.87	97.2	446
	5/25/22 DUP	0.0536	29.1	88.0	<0.100	6.87	96.1	460
	09/21/22	0.058	21.4	96.9	<0.100	6.74	109	425
Downgradient Wells								
H-28	10/21/15	9.25	113	109	<0.1	5.92	1,010	1,830
	12/14/15	1.02	17.3	15.5	<0.1	6.02	113	299
	02/23/16	10.2	123	97.4	<0.1	4.45	1,070	1,910
	04/05/16	10.3	120	94.4	<0.1	5.97	1,080	1,890
	06/07/16	3.66	45.4	62.2	<0.1	6.16	465	817
	08/09/16	9.29	116	98.4	<0.1	3.83	1,080	2,100
	10/18/16	4.96	67.3	91.4	0.165 J	6.82	643	1,460
	12/11/16	3.94	45.7	56.7	0.114 J	6.64	445	766
	09/21/17	6.06	74.1	88.5	<0.100	6.77	702	1,220
	06/13/18	6.97	92.1	96.5	0.126 J	6.59	826	1,490
	09/07/18	4.54	60.5	93.4	<0.100	6.84	679	1,330
	05/14/19	8.51	99.7	98.9	<0.100	6.32	935	1,680
	09/10/19	5.69	68.9	95.9	<0.100	6.89	716	1,390
	05/13/20	7.03	88.9	86.7	<0.100	6.58	676	1,220
	10/06/20	5.14	70.8	88.7	<0.100	6.72	638	1,220
	06/10/21	7.07	88.7	90.9	<0.100	6.57	817	1,480
	10/04/21	5.24	71.3	93.7	<0.100	--	681	1,220
	05/25/22	4.95	75.8	87.2	<0.100	6.96	670	1320
	09/20/22	4.98	67.0	87.6	<0.100	6.57	622	1190

TABLE 3
APPENDIX III ANALYTICAL RESULTS
MLSES ASH POND AREA

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
H-29	10/21/15	0.0788	16	65.2	<0.1	5.78	171	441
	12/14/15	0.29	165	8.68	0.56	5.92	178	990
	02/23/16	0.268	59.4	14.6	0.239 J	11.20	156	334
	04/05/16	0.361	80.8	14.2	0.363 J	6.04	181	489
	06/07/16	0.311	29.8	19.3	0.27 J	6.13	166	308
	08/09/16	0.172	64.6	53.1	<0.1	5.97	124	575
	10/18/16	0.953	150	4.33	1.15	6.63	346	607
	12/11/16	1.02	130	4.65	1.4	6.59	365	651
	09/21/17	1.4	147	42	0.304	6.78	170	782
	06/13/18	5.89	81.1	84.1	0.123 J	6.75	713	1,240
	09/07/18	3.21	46.7	78.6	<0.100	6.77	544	1,030
	05/14/19	8.12	95.9	81.8	0.104 J	6.52	780	1,400
	09/10/19	8.05	97.1	90.5	<0.1	6.62	930	1,600
	05/13/20	6.98	84.9	70.7	<0.100	6.72	769	1,340
	10/06/20	11.0	156	167	1.76	6.62	1,400	2,440
	06/10/21	7.28	89.7	80.2	<0.100	6.78	482	987
	10/04/21	17.9	241	201	0.223 J	--	2,330	3,690
	05/25/22	3.10	47.5	45.7	<0.100	6.72	338	654
	09/20/22	10.3	136	156	0.819	6.76	1550	2640
H-31	10/20/15	17.2	194	179	0.889	6.57	1,930	3,270
	12/14/15	20.4	236	147	0.692	6.60	1,740	2,250
	02/23/16	22.3	252	199	0.921	5.33	2,510	4,180
	04/05/16	21.1	250	186	1.36	6.46	2,450	3,920
	06/07/16	22.2	244	241	0.783	6.42	2,720	4,570
	08/09/16	24.1	251	217	0.216 J	4.38	2,730	4,440
	10/18/16	20	236	187	0.298 J	6.82	1,960	3,690
	12/11/16	22.3	246	201	0.892	6.82	2,640	4,170
	09/21/17	23.8	260	227	0.308 J	6.87	2,870	4,570
	06/12/18	16.6	246	205	0.646	6.61	2,390	4,100
	09/07/18	0.838	12.2	17.7	<0.275	6.77	136	457
	05/14/19	20	234	225	0.96	6.42	2,470	4,230
	09/10/19	19.7	234	232	2.1	6.78	2,640	4,220
	05/13/20	22.9	235	223	0.231 J	6.81	2,340	4,150
	10/06/20	9.77	148	110	0.494	6.78	1,150	2,000
	06/10/21	18.3	224	230	0.806	6.72	2,760	4,270
	10/04/21	16.7	244	208	<0.100	--	2,110	3,400
	05/25/22	17.3	255	205	1.16	6.72	2260	3940
	09/20/22	22.8	287	239	1.34	6.72	2730	4610

TABLE 3
APPENDIX III ANALYTICAL RESULTS
MLSES ASH POND AREA

Sample Location	Date Sampled	B (mg/L)	Ca (mg/L)	Cl (mg/L)	F (mg/L)	pH (s.u.)	SO_4 (mg/L)	TDS (mg/L)
H-32	10/20/15	1.22	42.2	120	0.374 J	6.18	309	797
	12/14/15	1.39	37.4	122	0.619	6.29	325	860
	02/23/16	1.48	45.3	123	0.701	4.82	323	842
	04/05/16	1.65	44.3	125	1.05	6.17	337	831
	06/07/16	1.82	45.6	137	0.858	6.05	350	829
	08/09/16	1.69	45.4	132	0.68	3.64	342	839
	10/18/16	1.72	50.5	121	0.904	6.75	319	888
	12/11/16	2.5 J	44.3	120	1.00	6.83	341	759
	09/21/17	2.07 J	52.8	129	0.519	6.82	337	807
	06/12/18	1.82 J	52.6	126	1.02	6.75	339	793
	09/07/18	0.292 J	10.9	17.8	0.551	6.79	54	283
	05/14/19	2.08	45.2	135	1.15	6.02	320	910
	09/10/19	1.87	45.9	127	0.923	6.68	365	810
	05/13/20	2.15	43.3	124	0.641	6.93	343	791
	10/06/20	1.79	49.0	116	0.814	6.59	336	777
	06/10/21	2.08	41.2	107	0.721 J	6.77	335	764
	10/04/21	1.93	49.3	118	0.656	--	359	765
	05/25/22	1.98	45.0	105	0.758	6.65	322	775
	09/20/22	1.91	44.8	111	0.670	6.92	327	766
	09/20/22 DUP	1.90	46.3	112	0.638	6.92	333	768

Notes:
1. Abbreviations: mg/L - milligrams per liter; TDS - total dissolved solids; s.u. - standard units.
2. J - concentration is below method quantitation limit; result is an estimate.

TABLE 4
APPENDIX IV GROUNDWATER ANALYTICAL DATA
MARTIN LAKE STEAM ELECTRIC STATION
ASH POND AREA

Sample Location	Date Sampled	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	F (mg/L)	Pb (mg/L)	Li (mg/L)	Hg (mg/L)	Mo (mg/L)	Se (mg/L)	Tl (mg/L)	Ra 226 (pCi/L)	Ra 228 (pCi/L)	Ra 226/228 Comb. (pCi/L)
Upgradient Wells																		
H-26	10/21/15	<0.0008	0.00364 J	0.0785	0.000349 J	<0.0003	<0.002	0.0385	<0.1	<0.0003	0.0139	<0.00008	<0.002	<0.002	<0.0005	0.919	<1.64	2.56
	12/14/15	<0.0008	<0.002	0.0401	0.000458 J	<0.0003	<0.002	0.0244	<0.1	<0.0003	0.0769	<0.00008	<0.002	<0.002	<0.0005	0.619	<1.95	2.57
	02/23/16	<0.0008	<0.002	0.0423	<0.0003	<0.0003	0.0077	0.00813	0.151 J	0.000315 J	0.0124	<0.00008	0.00248 J	0.0022 J	<0.0005	0.37	<2.06	2.43
	04/05/16	<0.0008	<0.002	0.0408	<0.0003	<0.0003	0.00798	0.0125	0.199 J	<0.0003	0.0121	<0.00008	<0.002	<0.002	<0.0005	<0.243	<1.06	<1.303
	06/07/16	<0.0008	<0.002	0.0467	0.000721 J	<0.0003	<0.002	0.0217	<0.1	<0.0003	0.0132	<0.00008	<0.002	<0.002	<0.0005	0.245	1.67	1.92
	08/09/16	<0.0008	0.0029 J	0.0431	0.00136	<0.0003	<0.002	0.0352	<0.1	<0.0003	0.0155	<0.00008	<0.002	<0.002	<0.0005	<0.2	<0.932	<1.132
	10/18/16	<0.0008	<0.002	0.0497	0.000709 J	<0.0003	<0.002	0.0214	0.127 J	<0.0003	0.0136	<0.00008	<0.002	0.00265 J	<0.0005	0.243	<0.622	0.87
	12/11/16	<0.0008	<0.002	0.0468	0.00146	<0.0003	0.00311 J	0.0275	0.161 J	0.000358 J	0.014	<0.00008	<0.002	<0.002	<0.0005	0.248	1.82	2.07
	06/13/18	<0.0008	<0.002	0.0659	0.0016	<0.0003	0.00213 J	0.0261	<0.100	<0.0003	0.032	<0.00008	<0.002	<0.002	<0.0005	<0.297	3.72	4.017
	09/07/18	NA	<0.002	0.0470	0.00155	<0.0003	0.00319 J	0.0247	<0.100	<0.0003	0.0489	NA	NA	<0.002	NA	<0.473	<0.665	<1.138
	05/14/19	<0.0008	0.0041 J	0.1900	0.00147	<0.0003	0.0406	0.0795	0.140 J	0.000972 J	0.147	<0.00008	<0.002	0.00222 J	<0.0005	1.43	0.598	2.028
	09/10/19	NA	<0.002	0.046	0.00165	<0.0003	<0.002	0.0237	<0.1	0.000313 J	0.0141	NA	NA	0.0109	NA	0.115	2.74	2.85
	05/13/20	<0.0008	<0.002	0.129	0.00166	<0.0003	0.00314 J	0.0241	<0.100	0.000798	0.0218 J	<0.00008	<0.002	0.0147	<0.0005	0.295	0.585	0.88
	10/06/20	<0.000800	<0.00200	0.0528	0.00168	<0.000300	<0.00200	0.0231	<0.100	<0.000300	0.0152	<0.0000800	<0.00200	0.00909	<0.000500	0.898	0.293	1.19
	06/04/21	<0.000800	<0.00200	0.0629	0.00153	<0.000300	<0.00200	0.024	0.245 J	0.000621 J	0.0148	<0.000400	<0.00200	0.0201	<0.000500	0.263	1.13	1.39
	10/04/21	<0.000800	<0.00200	0.0491	0.00147	<0.000300	<0.00200	0.0227	<0.100	0.000408 J	0.0119	<0.0000800	<0.00200	0.00669	<0.000500	0.332	2.17	2.5
	10/4/21 DUP	<0.000800	<0.00200	0.0508	0.0017	<0.000300	<0.00200	0.0232	<0.100	0.000398 J	0.0131	<0.0000800	<0.00200	0.00727	<0.000500	0.140 J	1.050	1.19
	05/25/22	<0.000800	<0.00200	0.0608	0.00169	<0.000300	0.00269 J	0.0246	<0.100	0.00138	0.0174	<0.0000800	<0.00200	0.0139	<0.000500	0.113 U	0.508 J	0.621 J
	09/21/22	<0.000800	<0.00200	0.0587	0.00160	<0.000300	<0.00200	0.0260	<0.100	0.000507 J	0.0161	<0.0000800	<0.00200	0.00859	<0.000500	0.0719 J	0.502	0.574
H-27	10/21/15	<0.0008	<0.002	0.0378	<0.0003	<0.0003	<0.002	0.00432 J	<0.1	<0.0003	0.0607	<0.00008	<0.002	<0.002	<0.0005	<0.553	<1.67	<2.223
	12/14/15	<0.0008	0.0021 J	0.039	<0.0003	<0.0003	<0.002	0.00326 J	0.156 J	0.000339 J	0.0624	<0.00008	<0.002	<0.002	<0.0005	0.468	<1.68	2.15
	02/23/16	<0.0008	<0.002	0.0266	<0.0003	<0.0003	<0.002	<0.003	0.101 J	<0.0003	0.0601	<0.00008	<0.002	<0.002	<0.0005	0.921	<1.62	2.54
	04/05/16	<0.0008	<0.002	0.0245	<0.0003	<0.0003	<0.002	<0.003	0.124 J	<0.0003	0.0573	<0.00008	<0.002	<0.002	<0.0005	0.269	<2.05	2.32
	06/07/16	<0.0008	<0.002	0.0342	0.000609 J	<0.0003	<0.002	0.016	<0.1	<0.0003	0.0107	<0.00008	<0.002	<0.002	<0.0005	0.269	<0.658	0.927
	08/09/16	<0.0008	<0.002	0.0241	<0.0003	<0.0003	<0.002	<0.003	<0.1	<0.0003	0.0616	<0.00008	<0.002	<0.002	<0.0005	0.408	<0.632	1.04
	10/18/16	<0.0008	<0.002	0.0248	<0.0003	<0.0003	<0.002	<0.003	0.144J	<0.0003	0.0576	<0.00008	<0.002	<0.002	<0.0005	<0.178	1.07	1.25
	12/11/16	<0.0008	<0.002	0.0236	<0.0003	<0.0003	<0.002	<0.003	0.161 J	<0.0003	0.0606	<0.00008	<0.002	<0.002	<0.0005	0.143	1.54	1.68
	06/13/18	<0.0008	<0.002	0.0237	<0.0003	<0.0003	0.00964	<0.003	0.208 J	<0.0003	0.108	<0.00008	<0.002	<0.002	<0.0005	0.267	<1.4	1.667
	09/07/18	NA	<0.002	0.0196	<0.0003	<0.0003	0.0453	<0.003	0.140 J	<0.0003	0.306	NA	NA	0.00773	NA	<0.285	1.43	1.715
	05/14/19	<0.0008	<0.002	0.0208	<0.0003	<0.0003	<0.002	<0.003	0.159 J	<0.0003	0.0678	<0.00008	<0.002	<0.002	<0.0005	1.10	0.928	2.028
	09/10/19	NA	<0.002	0.384	<0.0003	<0.0003	0.00668	<0.003	<0.1	<0.0003	0.103	NA	NA	0.0027 J	NA	0.185	3.57	3.76
	05/13/20	<0.0008	<0.002	0.0668	<0.0003	<0.0003	0.0133	<0.003	<0.100	<0.0003	0.170	<0.00008	<0.002	0.00671	<0.0005	0.166	<0.9	0.166
	10/06/20	<0.000800	<0.00200	0.0519	0.00167	<0.000300	<0.00200	0.0233	<0.100	0.000390 J	0.0152	<0.0000800	<0.00200	0.00961	<0.000500	0.409	0.789	1.2
	06/04/21	<0.000800	<0.00200	0.0771	0.00149	<0.000300	0.0363	0.0254	<0.100	<0.000300	0.0165	<0.0000800	<0.00200	0.00414 J	<0.000500	0.226	1.15	1.38
	10/04/21	<0.000800	<0.00200	0.115	0.000461 J	<0.000300	0.00265 J	0.0295	<0.100	<0.000300	0.105	<0.0000800	<0.00200	<0.00200	<0.000500	0.571	1.65	2.22
	05/25/22	<0.000800	0.0111	0.00857 J	0.0294	0.000666 J	0.00475 J	0.390	1.47	0.00154	0.144	<0.0000800	<0.00200	0.0120	<0.000500	0.345	0.273 U	0.618 J
	09/21/22	<0.000800	<0.00200	0.0794	0.000786 J	<0.000300	0.00287 J	0.0386	<0.100	<0.000300	0.152	<0.0000800	<0.00200	<0.00200	<0.000500	0.302	1.07	1.37
H-33	10/20/15	<0.0008	0.00208 J	0.0586	0.000351 J	<0.0003	<0.002	0.0274	<0.1	<0.0003	0.0814	<0.00008	<0.002	<0.002	<0.0005	1.76	1.64	3.40
	12/14/15	<0.0008	0.00205 J	0.0473	0.000382 J	<0.0003	<0.002	0.0293	0.136 J	<0.0003	0.0903	<0.00008	<0.002	<0.002	<0.0005	1.94	<1.79	3.73
	02/23/16	<0.0008	<0.002	0.0529	0.000311 J	<0.0003	0.0194	0.0163	0.125 J	<0.0003	0.182	<0.00008	<0.002	<0.002	<0.0005	0.906	<2.32	3.23
	04/05/16	<0.0008	<0.002	0.0576	0.000302 J	<0.0003	0.0171	0.016	0.14 J	<0.0003	0.16	<0.00008	<0.002	<0.002	<0.0005	0.328	1.08	1.41
	06/07/16	<0.0008	<0.002	0.0774	0.000604 J	<0.0003	0.0153	0.0196	<0.1	<0.0003	0.163	<0.00008	<0.002	<0.002	<0.0005	0.276	0.897	1.17
	08/09/16	<0.0008	<0.002	0.0424	0.000519 J	<0.0003	0.00291 J	0.0284	<0.1	<0.0003	0.102	<0.00008	<0.002	<0.002	<0.0005	<0.149	0.649	0.80
	10/18/16	<0.0008	0.00347 J	0.0464	0.000617 J	<0.0003	0.0309	0.0644	<0.1	0.000329 J	0.118	<0.00008	<0.002	<0.002	<0.0005	0.096	<0.517	0.61
	12/11/16	<0.0008	0.00218 J	0.0537	0.000865 J	<0.0003	0.0368	0.0408	0.132 J	0.000495 J	0.115	<0.00008	<0.002	<0.002	<0.0005	0.159	1.29	1.45
	06/13/18	<0.0008	0.00283 J	0.0741	0.0004 J	<0.0003	0.0182	0.0266	0.105 J	0.0009 J	0.183	<0.00008	<0.002	<0.002	<0.0005	0.795	<0.712	1.507
	09/07/18	NA	0.00239 J	0.0757	0.0003 J	<0.0003	0.0105	0.0288	0.135 J	<0.0003	0.160	NA	NA	<0.002	NA	0.334	<0.645	0.979
	05/14/19	<0.0008	0.00355 J	0.158	0.00114	<0.0003	0.0342	0.0648	0.166 J	0.000772 J	0.161	<0.00008	<0.002	<0.002	<0.0005	0.850	1.35	2.200
	09/10/19	NA	<0.002	0.111	0.000518 J	<0.0003	0.00637	0.0347	<0.100	<0.0003	0.142	NA	NA	<0.002	NA	0.6	2.97	3.57
	05/13/20	<0.0008	<0.002	0.0784	0.00053 J	<0.0003	0.00755	0.0312	<0.100	0.00191	0.173	<0.00008	<0.002	0.00243 J	<0.0005	0.395	1.9	2.29
	10/06/20	<0.000800	<0.00200	0.068	0.000721 J	<0.000300	0.00317 J	0.0331	<0.100	0.000358 J	0.128	<0.0000800	<0.00200	<0.00200	<0.000500	0.33	0.737	1.07
	06/04/21	<0.000800	<0.00200	0.213	0.000342 J	<0.000300	0.00464 J	0.0258	0.272 J	<0.000300	0.155	<0.0000800	<0.00200	<0.00200	<0.000500	0.329	0.32	1.41
	06/4/21 DUP	<0.000800	<0.00200	0.208	0.000319 J	<0.000300	0.00458 J	0.0248	0.265	<0.000300	0.153	<0.0000800	<0.00200	<0.00200	<0.000500	0.869	1.14	2.01
	10/04/21	<0.000800	<0.00200	0.129	0.000583 J	<0.000300	0.00337	0.0340	<0.100	0.000347 J	0.131	<0.0000800	<0.00200	<0.00200	<0.000500	0.422	1.21	1.63
	05/25/22	<0.000800	<0.00200	0.0996	0.000536 J	<0.000300	0.00696	0.0295	<0.100	<0.000300	0.189	<0.0000800	<0.00200	<0.00200	<0.000500	0.277	1.35	1.63
	5/25/22 DUP	<0.000800	<0.00200	0.101	0.000533 J	<0.000300	0.00709	0.0301	<0.100	<0.000300	0.191	<0.0000800	<0.00200	<0.00200	<0.000500	0.251 J	1.02	1.27
	09/21/22	<0.000800	<0.00200	0.0789	0.000812 J	<0.000300	0.00272 J	0.0389	<0.100	<0.000300	0.151	<0.0000800	<0.00200	<0.00200	<0.000500	0.232 J	1.09	1.32

TABLE 4
APPENDIX IV GROUNDWATER ANALYTICAL DATA
MARTIN LAKE STEAM ELECTRIC STATION
ASH POND AREA

Sample Location	Date Sampled	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	F (mg/L)	Pb (mg/L)	Li (mg/L)	Hg (mg/L)	Mo (mg/L)	Se (mg/L)	Tl (mg/L)	Ra 226 (pCi/L)	Ra 228 (pCi/L)	Ra 226/228 Comb. (pCi/L)
Downgradient Wells																		
H-28	10/21/15	<0.0008	0.00278 J	0.0396	0.00148	0.00121	<0.002	0.188	<0.1	0.000491 J	0.154	<0.00008	<0.002	0.00682	<0.0005	<0.558	<1.65	<2.208
	12/14/15	<0.0008	<0.002	0.0224	<0.0003	0.000572 J	<0.002	0.0225	<0.1	<0.0003	0.021	<0.00008	<0.002	<0.002	<0.0005	0.707	<1.18	1.89
	02/23/16	<0.0008	0.00225 J	0.0202	0.00133	0.00151	<0.002	0.201	<0.1	0.00053 J	0.159	<0.00008	<0.002	0.00222 J	<0.0005	<0.396	2.24	2.64
	04/05/16	<0.0008	<0.002	0.0173	0.0011	0.00252	<0.002	0.199	<0.1	0.00087 J	0.15	<0.00008	<0.002	0.00237 J	<0.0005	<0.231	1.76	1.99
	06/07/16	<0.0008	<0.002	0.0468	0.000934 J	0.000664 J	<0.002	0.0944	<0.1	<0.0003	0.0959	<0.00008	<0.002	<0.002	<0.0005	0.310	1.48	1.79
	08/09/16	<0.0008	<0.002	0.0155	0.00275	0.0016	<0.002	0.195	<0.1	0.000774 J	0.155	<0.00008	<0.002	0.00286 J	<0.0005	<0.451	1.41	1.86
	10/18/16	<0.0008	0.00284J	0.0174	0.00685	0.000744 J	<0.002	0.169	0.165J	0.00108	0.155	<0.00008	<0.002	0.00273 J	<0.0005	<0.228	0.645	0.87
	12/11/16	<0.0008	<0.002	0.0471	0.000698 J	0.000668 J	<0.002	0.0924	0.114 J	<0.0003	0.0869	<0.00008	<0.002	<0.002	<0.0005	<0.149	1.13	1.28
	06/13/18	<0.0008	<0.002	0.0186	0.00393	0.0038	<0.002	0.169	0.126 J	0.000448 J	0.18	<0.00008	<0.002	<0.002	<0.0005	0.327	<1.56	1.887
	09/07/18	NA	<0.002	0.0192	0.00704	0.00115	<0.002	0.162	<0.100	0.00118 J	0.203	NA	NA	0.00281 J	NA	<0.243	0.845	1.088
	05/14/19	<0.0008	<0.002	0.0141	0.00281	0.00212	<0.002	0.187	<0.100	0.000595 J	0.172	<0.00008	<0.002	0.00619	<0.0005	0.444	0.615	1.059
	09/10/19	NA	<0.002	0.145	0.0058	0.000951	<0.002	0.146	<0.1	0.00132	0.169	NA	NA	0.00461	NA	0.205	4.26	4.47
	05/13/20	<0.0008	<0.002	0.0149	0.00252	0.00126	<0.002	0.159	<0.100	0.00751 J	0.171	<0.00008	<0.002	0.0032 J	<0.0005	0.151	0.984	1.13
	10/06/20	<0.000800	<0.00200	0.0166	0.00563	0.000835 J	<0.00200	0.145	<0.100	0.00106	0.173	<0.0000800	<0.00200	0.00468 J	<0.000500	0.898	0.293	1.19
	06/04/21	<0.000800	<0.00200	0.0167	0.00353	0.00121	<0.00200	0.164	<0.100	0.000812 J	0.159	0.000101 J	<0.00200	<0.00200	<0.000500	0.229	0.796 J	1.03
	10/04/21	<0.000800	<0.00200	0.0135	0.00627	0.000763 J	<0.00200	0.148	<0.100	0.00127	0.163	<0.0000800	<0.00200	0.00477 J	<0.000500	0.119 J	0.798	0.917
	05/25/22	<0.000800	<0.00200	0.0144	0.00571	0.000848 J	<0.00200	0.163	<0.100	0.000599 J	0.172	<0.0000800	<0.00200	<0.00200	<0.000500	0.202 J	1.55	1.75
	09/20/22	<0.000800	<0.00200	0.0148	0.00705	0.000692 J	<0.00200	0.164	<0.100	0.00145	0.197	<0.0000800	<0.00200	<0.00200	<0.000500	0.320	0.601	0.921
H-29	10/21/15	<0.0008	<0.002	0.159	0.000359 J	<0.0003	<0.002	0.0301	<0.1	<0.0003	0.0156	<0.00008	<0.002	<0.002	<0.0005	0.464	1.82	2.28
	12/14/15	<0.0008	<0.002	0.277	<0.0003	<0.0003	0.062	<0.003	0.56	0.000542 J	0.0202	<0.00008	0.00819	0.0282	<0.0005	<0.53	<1.25	<1.78
	02/23/16	<0.0008	0.00203 J	0.151	<0.0003	<0.0003	0.019	<0.003	0.239 J	<0.0003	0.0135	<0.00008	0.00603	0.0148	<0.0005	<0.374	<2.22	<2.594
	04/05/16	<0.0008	<0.002	0.167	<0.0003	<0.0003	0.042	<0.003	0.363 J	<0.0003	0.0175	<0.00008	0.00697	0.0232	<0.0005	<0.228	<0.897	<1.125
	06/07/16	<0.0008	<0.002	0.136	<0.0003	<0.0003	0.0274	<0.003	0.27 J	<0.0003	0.0188	<0.00008	0.00551	0.0152	<0.0005	0.173	<0.834	1.01
	08/09/16	<0.0008	0.00995	0.315	<0.0003	<0.0003	0.00297 J	0.00473 J	<0.1	<0.0003	0.0143	<0.00008	<0.002	<0.002	<0.0005	0.261	<0.578	0.84
	10/18/16	<0.0008	<0.002	0.118	<0.0003	<0.0003	0.00412 J	<0.003	1.15	0.000427J	0.0056 J	<0.00008	0.00305 J	0.0681	<0.0005	0.155	<0.439	0.59
	12/11/16	<0.0008	<0.002	0.0779	<0.0003	<0.0003	<0.002	<0.003	1.4	<0.0003	<0.005	<0.00008	0.00307 J	0.0642	<0.0005	<0.113	<0.599	<0.712
	06/13/18	<0.0008	<0.002	0.0157	0.00345	0.00318	<0.002	0.153	0.123 J	0.000779 J	0.153	<0.00008	<0.002	<0.002	<0.0005	<0.274	<1.62	<1.894
	09/07/18	NA	<0.002	0.0374	0.00513	0.000938	<0.002	0.119	<0.100	0.00172	0.145	NA	NA	0.00374 J	NA	<0.371	<0.71	<1.081
	05/14/19	<0.0008	<0.002	0.0138	0.00341	0.00219	<0.002	0.183	0.104 J	0.000543 J	0.173	<0.00008	<0.002	0.00616	<0.0005	<0.339	<0.707	<1.046
	09/10/19	NA	<0.002	0.0135	0.00233	0.00127	<0.002	0.164	<0.1	0.000916 J	0.157	NA	NA	0.00395 J	NA	0.364	4.99	5.35
	05/13/20	<0.0008	<0.002	0.0117	0.0013	0.00129	<0.002	0.142	<0.100	0.000684 J	0.134	<0.00008	<0.002	0.00281 J	<0.0005	0.246	0.545	0.791
	10/06/20	<0.000800	0.00696	0.0165	0.0256	<0.000300	0.00205 J	0.377	1.76	0.000438	0.164	<0.0000800	<0.00200	0.0513	<0.000500	0.0273	0.741	0.769
	06/04/21	<0.000800	<0.00200	0.0168	0.0032	0.00126	<0.00200	0.168	<0.100	0.000554 J	0.159	0.000118 J	<0.00200	<0.00200	<0.000500	0.136 J	0.853	0.989
	10/04/21	<0.000800	0.0130	0.0222	0.0340	0.000847 J	0.00477 J	0.430	0.223 J	0.00235	0.159	<0.0000800	<0.00200	0.117	<0.000500	0.155 J	1.82	1.97
	05/25/22	<0.000800	<0.00200	0.0132	0.00339	0.000521 J	<0.00200	0.0964	<0.100	0.000590 J	0.102	0.0000976 J	<0.00200	<0.00200	<0.000500	0.340	1.45	1.79
	09/20/22	<0.000800	0.00510	0.0142	0.0165	0.000874 J	0.00201 J	0.271	0.819	0.00250	0.195	<0.0000800	<0.00200	0.00558	<0.000500	0.253 J	1.00	1.26
H-31	10/20/15	<0.0008	0.0168	0.0732	0.0126	0.0032	0.00687	0.434	0.889	<0.0003	0.137	<0.00008	<0.002	0.116	<0.0005	0.943	<1.88	2.82
	12/14/15	<0.0008	0.00513	0.0388	0.00702	<0.0003	0.00456 J	0.0651	0.692	<0.0003	0.149	<0.00008	<0.002	0.0231	<0.0005	1.61	<1.29	2.90
	02/23/16	<0.0008	0.00436 J	0.0243	0.0101	<0.0003	<0.002	0.0594	0.921	<0.0003	0.146	<0.00008	<0.002	0.0209	<0.0005	<0.419	<1.64	<2.059
	04/05/16	<0.0008	0.00514	0.0241	0.00925	<0.0003	0.00435 J	0.0685	1.36	<0.0003	0.146	<0.00008	<0.002	0.0226	<0.0005	<0.334	<0.897	<1.231
	06/07/16	<0.0008	0.0038 J	0.0242	0.00789	<0.0003	<0.002	0.0406	0.783	<0.0003	0.157	<0.00008	<0.002	0.0307	<0.0005	0.257	<0.555	0.81
	08/09/16	<0.0008	0.00886	0.0191	0.00734	<0.0003	<0.002	0.286	0.216 J	<0.0003	0.17	<0.00008	<0.002	0.0202	<0.0005	1.31	0.900	2.21
	10/18/16	<0.0008	0.00351 J	0.0215	0.00167 J	<0.0003	<0.002	0.0304 J	0.298 J	<0.0003	0.165	<0.00008	<0.002	0.00567 J	<0.0005	0.169	1.18	1.35
	12/11/16	<0.0008	0.00875 J	0.0189	0.0197	<0.0003	0.00386 J	0.23 J	0.892	<0.0003	0.198	<0.00008	<0.002	0.0365	<0.0005	0.195	<0.754	0.95
	06/12/18	<0.0008	0.00532	0.0194	0.00545	<0.0003	0.003 J	0.236	0.646	<0.0003	0.214	<0.00008	<0.002	0.00475 J	<0.0005	<0.26	<0.597	<0.857
	09/07/18	NA	<0.002	0.0287	<0.0003	<0.0003	<0.002	0.00353 J	0.275 J	<0.0003	0.0187	NA	NA	0.00424 J	NA	<0.261	<0.567	<0.828
	05/14/19	<0.0008	0.00675	0.0163	0.00928	<0.0003	0.00315 J	0.389	0.96	<0.0003	0.219	<0.0004	<0.002	0.0261	<0.0005	2.62	<0.789	3.409
	09/10/19	NA	0.00845	0.0158	0.0312	<0.0003	0.00305 J	0.41	2.1	<0.0003	0.225	NA	NA	0.0642	NA	0.247	2.92	3.17
	05/13/20	<0.0008	0.011	0.0159	0.0331	<0.0003	0.00367 J	0.449	0.231 J	<0.0003	0.249	<0.00008	<0.002	0.0792	<0.0005	0.0808	1.7	1.78
	10/06/20	<0.000800	0.00440 J	0.0345	0.00923	<0.000300	<0.00200	0.208	0.494	<0.000300	0.120	<0.0000800	<0.00200	0.0313	<0.000500	0.000	0.992	0.992
	06/04/21	<0.000800	0.00756	0.0159	0.014	<0.000300	0.0021 J	0.427	0.806	<0.000300	0.225	<0.0000800	<0.00200	0.00423 J	<0.000500	0.248 J	0.808	1.06 J
	10/04/21	<0.000800	0.00819	0.0160	0.0260	<0.000300	<0.00200	0.483	<0.100	<0.000300	0.202	<0.0000800	<0.00200	0.0767	<0.000500	0.182 J	1.42	1.61
	05/25/22	<0.000800	0.00634	0.0143	0.0272	<0.000300	<0.00200	0.543	1.16	<0.000300	0.239	<0.0000800	<0.00200	0.00948	<0.000500	0.183 J	1.11	1.29
	09/20/22	<0.000800	0.0140	0.0112	0.0376	0.00110	0.00493 J	0.516	1.34	0.00370	0.204	<0.0000800	<0.00200	0.0163	<0.000500	0.155 J	0.891	1.05

TABLE 4
APPENDIX IV GROUNDWATER ANALYTICAL DATA
MARTIN LAKE STEAM ELECTRIC STATION
ASH POND AREA

Sample Location	Date Sampled	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Cd (mg/L)	Cr (mg/L)	Co (mg/L)	F (mg/L)	Pb (mg/L)	Li (mg/L)	Hg (mg/L)	Mo (mg/L)	Se (mg/L)	Tl (mg/L)	Ra 226 (pCi/L)	Ra 228 (pCi/L)	Ra 226/228 Comb. (pCi/L)
H-32	10/20/15	<0.0008	0.0028 J	0.16	0.00266	<0.0003	<0.002	0.163	0.374 J	<0.0003	0.0788	<0.00008	<0.002	0.00303 J	<0.0005	1.05	<1.90	2.95
	12/14/15	<0.0008	0.0123	0.0384	0.00313	<0.0003	<0.002	0.155	0.619	<0.0003	0.0733	<0.00008	<0.002	<0.002	<0.0005	0.712	<2.21	2.92
	02/23/16	<0.0008	0.00712	0.0277	0.00452	<0.0003	<0.002	0.188	0.701	0.000326 J	0.0821	<0.00008	<0.002	<0.002	<0.0005	1.12	1.60	2.72
	04/05/16	<0.0008	0.00648	0.0237	0.00527	0.00128	<0.002	0.208	1.05	0.00182	0.0818	<0.00008	<0.002	<0.002	<0.0005	<0.364	<1.15	<1.514
	06/07/16	<0.0008	0.00446 J	0.0238	0.00583	0.000997 J	<0.002	0.207	0.858	0.00168	0.087	<0.00008	<0.002	0.00298 J	<0.0005	<0.165	0.613	0.778
	08/09/16	<0.0008	0.00344 J	0.0234	0.00548	0.000713 J	<0.002	0.19	0.68	0.00115	0.0774	<0.00008	<0.002	0.00281 J	<0.0005	2.56	<0.446	3.01
	10/18/16	<0.0008	0.00289 J	0.02	0.00567	0.00254	<0.002	0.204	0.904	0.00332	0.0834	<0.00008	<0.002	0.00267 J	<0.0005	<0.139	0.683	0.82
	12/11/16	<0.0008	0.00246 J	0.0205	0.00609	0.00108	<0.002	0.208	1	0.00137	0.0838	<0.00008	<0.002	0.00237 J	<0.0005	<0.163	<0.753	<0.916
	06/12/18	<0.0008	<0.002	0.0175	0.00681	0.000586 J	<0.002	0.215	1.02	0.000701 J	0.0957	<0.00008	<0.002	<0.002	<0.0005	<0.275	0.917	1.192
	09/07/18	NA	<0.002	0.0404	<0.0003	<0.0003	<0.002	0.00347 J	0.551	<0.0003	0.0195	NA	NA	0.0157	NA	0.343	1.25	1.593
	05/14/19	<0.0008	0.002 J	0.0162	0.00713	0.000366 J	<0.002	0.202	1.15	0.000574 J	0.0978	<0.00008	<0.002	0.00675	<0.0005	0.303	<0.546	<0.849
	09/10/19	NA	<0.002	0.016	0.00678	0.000467 J	<0.002	0.185	0.923	0.00056 J	0.0935	NA	NA	0.00492 J	NA	0.0404	4.74	4.78
	05/13/20	<0.0008	0.00214 J	0.0166	0.00725	0.000389 J	<0.00200	0.195	0.641	0.000743 J	0.0978	<0.00008	<0.002	0.00401 J	<0.0005	<0.304	1.15	1.15
	10/06/20	<0.000800	<0.00200	0.0160	0.00676	0.000380 J	<0.00200	0.179	0.814	0.000633	0.0946	<0.0000800	<0.00200	0.00378 J	<0.000500	0.0686	0.348	0.417
	06/04/21	<0.000800	<0.00200	0.0161	0.0067	0.000395 J	<0.00200	0.179	0.721 J	0.000591 J	0.09	<0.0000800	<0.00200	<0.00200	<0.000500	0.000	0.497 J	0.497 J
	10/04/21	<0.000800	<0.00200	0.0166	0.00667	0.000418 J	<0.00200	0.174	0.656	0.000709 J	0.0888	<0.0000800	<0.00200	0.00502	<0.000500	0.0968	1.770	1.860
	05/25/22	<0.000800	<0.00200	0.0159	0.00685	0.000338 J	<0.00200	0.184	0.758	0.000536 J	0.0940	<0.0000800	<0.00200	<0.00200	<0.000500	0.0871 J	0.815	0.902
	09/20/22	<0.000800	<0.00200	0.0178	0.00642	0.000375 J	<0.00200	0.179	0.670	0.000938 J	0.0943	<0.0000800	<0.00200	0.00230 J	<0.000500	-0.0498 U	1.72	1.72
	9/20/22 DUP	<0.000800	<0.00200	0.0170	0.00615	0.000362 J	<0.00200	0.176	0.638	0.000711 J	0.0949	<0.0000800	<0.00200	<0.00200	<0.000500	0.0199 U	0.398 J	0.418 J

Notes:
1. Abbreviations: mg/L - milligrams per liter; pCi/L - picocuries per liter; NA - not analyzed
2. J - concentration is below method quantitation limit; result is an estimate; < or U - non-detect result.

ATTACHMENT 1

LABORATORY ANALYTICAL REPORTS

July 13, 2022

Will Vienne
WSP-Golder
2201 Double Creek Dr #4004
Round Rock, Texas 78664
TEL: (512) 671-3434
FAX (512) 671-3446

Order No.: 2205310

RE: Luminant - MLSES - Ash Pond Area - CCR

Dear Will Vienne:

DHL Analytical, Inc. received 8 sample(s) on 5/27/2022 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAP except where noted in the Case Narrative. All non-NELAP methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-22-28

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. Round Rock, TX 78664
Phone 512.388.8222
Web: **www.dhlanalytical.com**
Email: **login@dhlanalytical.com**

CHAIN-OF-CUSTODY

CLIENT: GOLDER
ADDRESS: 2201 DOUBLE CREEK DR #4004 ROUND ROCK TX 78664
PHONE: 512-671-3434 EMAIL:
DATA REPORTED TO: WILL VIENNE
ADDITIONAL REPORT COPIES TO:

DATE: 5-26-22
PO#:
PROJECT LOCATION OR NAME: LUMINANT - MLSES - ASH POND AREA - CCR
CLIENT PROJECT # 19122262 COLLECTOR: JOHN BRAYTON

LABORATORY USE ONLY
DHL WORKORDER #: 2205310

Authorize 5% surcharge for TRRP report? ☐ Yes ☐ No

W=WATER L=LIQUID S=SOIL SO=SOLID SE=SEDIMENT P=PAINT SL=SLUDGE

Field Sample I.D.	Lab Use Only: DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	PRESERVATION: HCL	HNO_3	H_2SO_4	NaOH	Zn Acetate ☐	ICE ☒	UNPRESERVED ☒	ANALYSES	APPENDIX III	APPENDIX IV	FIELD NOTES
H-28	01	5-25-22	1120	W	P	4		X				X			X	X	
H-29	02	"	1215	W	P	4		X				X			X	X	
H-31	03	"	1310	W	P	4		X				X			X	X	
H-32	04	"	1400	W	P	4		X				X			X	X	
H-33	05	"	1455	W	P	4		X				X			X	X	
DUP-1	06	"	1455	W	P	4		X				X			X	X	
H-26	07	"	1605	W	P	4		X				X			X	X	
H-27	08	"	1700	W	P	4		X				X			X	X	

Relinquished By: (Sign) DATE/TIME 5-26-22 1830 Received by: Fedex
Relinquished By: (Sign) Fedex DATE/TIME 5-27-22 0850 Received by:
Relinquished By: (Sign) DATE/TIME Received by:

TURN AROUND TIME (CALL FIRST FOR RUSH)
RUSH-1 DAY☐ RUSH-2 DAY☐ RUSH-3 DAY☐
NORMAL ☒ OTHER ☐
DUE DATE ☐

LABORATORY USE ONLY
RECEIVING TEMP (°C): 1.1 °C THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☑ INTACT ☐ NOT USED
CARRIER: ☐ LSO ☑ FEDEX ☐ UPS ☐ COURIER ☐ OTHER ☐ HAND DELIVERED

☐ **DHL DISPOSAL @ 5.00 each** ☐ **Return**

DHL COC REV 3 | MAR 2021

Eric Lau

From: John DuPont
Sent: Tuesday, May 28, 2019 11:35 AM
To: Eric Lau
Subject: FW: CCR Analysis

Appendix III Parameters:
Metals (Ca and B)
Anions (Cl, F, and SO4)
TDS

Appendix IV Parameters:

Metals (As, Ba, Be, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se, and Tl)
Ra-226
Ra-228

From: Vienne, Will [mailto:William_Vienne@golder.com]
Sent: Tuesday, April 09, 2019 12:48 PM
To: John DuPont <dupont@dhlanalytical.com>
Subject: CCR Analysis

ORIGIN ID:GGGA (512) 671-3434

GOLDER ASSOCIATES CORPORATION
14950 HEATHROW FOREST PKWY
STE 280
HOUSTON, TX 77032
UNITED STATES US

SHIP DATE: 26MAY22
ACTWGT: 33.35 LB
CAD: 6994167/SSFE2300
DIMS: 22x13x14 IN

BILL THIRD PARTY

Part # 156267-435 RRD22 EXP 09/22

TO

DHL
2300 DOUBLE CREEK DR

ROUND ROCK TX 78664

(339) 999-9999 REF:

INV: PO: DEPT:

FedEx Express

J222022041201uv

1 of 3

TRK# 0201 2736 0637 6064

MASTER

A8 BSMA

FRI - 27 MAY 10:30A
PRIORITY OVERNIGHT

78664
TX-US AUS

CUSTODY SEAL

DATE 5-26-22

SIGNATURE

DHL ANALYTICAL

ORIGIN ID:GGGA (512) 671-3434
GOLDER ASSOCIATES CORPORATION
14950 HEATHROW FOREST PKWY
STE 280
HOUSTON, TX 77032
UNITED STATES US

SHIP DATE: 26MAY22
ACTWGT: 53.70 LB
CAD: 6994167/SSFE2300
DIMS: 22x13x14 IN

BILL THIRD PARTY

Part # 156297-435 HRUB02 EXP 09/22

TO
DHL
2300 DOUBLE CREEK DR
ROUND ROCK TX 78664
(999) 999-9999
INV:
PO:
REF:
DEPT:

FedEx Express

3 of 3
MPS# 0263 2736 0637 6086
Mstr# 2736 0637 6064
0201

FRI - 27 MAY 10:30A
PRIORITY OVERNIGHT

A8 BSMA

78664
TX-US AUS

CUSTODY SEAL

DATE 5-24-22

SIGNATURE

DHL ANALYTICAL

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name WSP-Golder

Date Received: 5/27/2022

Work Order Number 2205310

Received by: KAO

Checklist completed by: _____ 5/27/2022
Signature | Date

Reviewed by DL 5/27/2022
Initials | Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ✔	No	Not Present
Custody seals intact on shipping container/cooler?	Yes ✔	No	Not Present
Custody seals intact on sample bottles?	Yes	No	Not Present ✔
Chain of custody present?	Yes ✔	No	
Chain of custody signed when relinquished and received?	Yes ✔	No	
Chain of custody agrees with sample labels?	Yes ✔	No	
Samples in proper container/bottle?	Yes ✔	No	
Sample containers intact?	Yes ✔	No	
Sufficient sample volume for indicated test?	Yes ✔	No	
All samples received within holding time?	Yes ✔	No	
Container/Temp Blank temperature in compliance?	Yes ✔	No	1.1 °C
Water - VOA vials have zero headspace?	Yes	No	No VOA vials submitted ✔
Water - pH<2 acceptable upon receipt?	Yes ✔	No	NA LOT # 13171
	Adjusted? no		Checked by EL
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes	No	NA ✔ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

Laboratory Name: DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: Luminant - MLSES - Ash Pond Area - CCR	**LRC Date:** 7/13/22
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2205310
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	**1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				**R1-01**
		2) Were all departures from standard conditions described in an exception report?			X		
R2	OI	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample detection limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			X		
		7) Were % moisture (or solids) reported for all soil and sediment samples?			X		
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035?			X		
		9) If required for the project, TICs reported?			X		
R4	O	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			X		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < MDL?	X				
		5) For analyte(s) detected in a blank sample, was the concentration, unadjusted for sample specific factors, in all associated field samples, **greater** than 10 times the concentration in the blank sample?			X		
R6	OI	**Laboratory Control Samples (LCS):**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			**R7-03**
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method Quantitation Limits (MQLs):**					
		1) Are the MQLs for each method analyte included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Name: DHL Analytical, Inc.

Laboratory Review Checklist (continued): Supporting Data

Project Name: Luminant - MLSES - Ash Pond Area - CCR	**LRC Date:** 7/13/22
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2205310
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**Mass Spectral Tuning:**					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal Standards (IS):**					
		1) Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw Data (NELAC Section 5.5.10)**					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively Identified Compounds (TICs):**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) Results:**					
		1) Were percent recoveries within method QC limits?	X				
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	**Method Detection Limit (MDL) Studies**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency Test Reports:**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		1) Was DOC conducted consistent with NELAC Chapter 5 – Appendix C?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/Validation Documentation for Methods** (NELAC Chapter 5)					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory Standard Operating Procedures (SOPs):**					
		1) Are laboratory SOPs current and on file for each method performed?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

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 Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

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.

The Exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory is not accredited under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is 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 that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on February 23-26 2021. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name: John DuPont
Official Title: General Manager

Signature

07/13/22
Date

Name: Dr. Derhsing Luu
Official Title: Technical Director

DHL Analytical, Inc. **Date:** *13-Jul-22*

CLIENT: WSP-Golder
Project: Luminant - MLSES - Ash Pond Area - CCR
Lab Order: 2205310

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Method SW6020B - Metals Analysis
Method SW7470A - Mercury Analysis
Method E300 - Anions Analysis
Method M2540C - TDS Analysis
Sub-contract - Radium-228 and Radium-226 analyses by methods E904/9320 and SM 7500 Ra B M. Analyzed at Pace Analytical.

Exception Report R1-01

The samples were received and log-in performed on 5/27/22. A total of 8 samples were received. The samples arrived in good condition and were properly packaged.

Exception Report R7-03

For Anions analysis performed on 5/31/22 (batch 105596) the matrix spike recovery was slightly below control limits for Sulfate. This is flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate was from this work order. The LCS was within control limits for this analyte. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *13-Jul-22*

CLIENT: WSP-Golder
Project: Luminant - MLSES - Ash Pond Area - CCR
Lab Order: 2205310

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2205310-01	H-28		05/25/22 11:20 AM	5/27/2022
2205310-02	H-29		05/25/22 12:15 PM	5/27/2022
2205310-03	H-31		05/25/22 01:10 PM	5/27/2022
2205310-04	H-32		05/25/22 02:00 PM	5/27/2022
2205310-05	H-33		05/25/22 02:55 PM	5/27/2022
2205310-06	DUP-1		05/25/22 02:55 PM	5/27/2022
2205310-07	H-26		05/25/22 04:05 PM	5/27/2022
2205310-08	H-27		05/25/22 05:00 PM	5/27/2022

Lab Order: 2205310
Client: WSP-Golder
Project: Luminant - MLSES - Ash Pond Ar

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2205310-01A	H-28	05/25/22 11:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-28	05/25/22 11:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-28	05/25/22 11:20 AM	Aqueous	SW7470A	Mercury Aq Prep	06/01/22 12:42 PM	105626
2205310-01B	H-28	05/25/22 11:20 AM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-28	05/25/22 11:20 AM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-28	05/25/22 11:20 AM	Aqueous	M2540C	TDS Preparation	05/31/22 03:11 PM	105602
2205310-02A	H-29	05/25/22 12:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-29	05/25/22 12:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-29	05/25/22 12:15 PM	Aqueous	SW7470A	Mercury Aq Prep	06/01/22 12:42 PM	105626
2205310-02B	H-29	05/25/22 12:15 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-29	05/25/22 12:15 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-29	05/25/22 12:15 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-29	05/25/22 12:15 PM	Aqueous	M2540C	TDS Preparation	05/31/22 03:11 PM	105602
2205310-03A	H-31	05/25/22 01:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-31	05/25/22 01:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-31	05/25/22 01:10 PM	Aqueous	SW7470A	Mercury Aq Prep	06/01/22 12:42 PM	105626
2205310-03B	H-31	05/25/22 01:10 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-31	05/25/22 01:10 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-31	05/25/22 01:10 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-31	05/25/22 01:10 PM	Aqueous	M2540C	TDS Preparation	05/31/22 03:11 PM	105602
2205310-04A	H-32	05/25/22 02:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-32	05/25/22 02:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-32	05/25/22 02:00 PM	Aqueous	SW7470A	Mercury Aq Prep	06/01/22 12:42 PM	105626
2205310-04B	H-32	05/25/22 02:00 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-32	05/25/22 02:00 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-32	05/25/22 02:00 PM	Aqueous	M2540C	TDS Preparation	05/31/22 03:11 PM	105602
2205310-05A	H-33	05/25/22 02:55 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-33	05/25/22 02:55 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606

Lab Order: 2205310
Client: WSP-Golder
Project: Luminant - MLSES - Ash Pond Ar

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2205310-05A	H-33	05/25/22 02:55 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-33	05/25/22 02:55 PM	Aqueous	SW7470A	Mercury Aq Prep	06/02/22 10:45 AM	105627
2205310-05B	H-33	05/25/22 02:55 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-33	05/25/22 02:55 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-33	05/25/22 02:55 PM	Aqueous	M2540C	TDS Preparation	05/31/22 03:11 PM	105602
2205310-06A	DUP-1	05/25/22 02:55 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	DUP-1	05/25/22 02:55 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	DUP-1	05/25/22 02:55 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	DUP-1	05/25/22 02:55 PM	Aqueous	SW7470A	Mercury Aq Prep	06/02/22 10:45 AM	105627
2205310-06B	DUP-1	05/25/22 02:55 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	DUP-1	05/25/22 02:55 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	DUP-1	05/25/22 02:55 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	DUP-1	05/25/22 02:55 PM	Aqueous	M2540C	TDS Preparation	05/31/22 03:11 PM	105602
2205310-07A	H-26	05/25/22 04:05 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-26	05/25/22 04:05 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-26	05/25/22 04:05 PM	Aqueous	SW7470A	Mercury Aq Prep	06/02/22 10:45 AM	105627
2205310-07B	H-26	05/25/22 04:05 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-26	05/25/22 04:05 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-26	05/25/22 04:05 PM	Aqueous	M2540C	TDS Preparation	05/31/22 03:11 PM	105602
2205310-08A	H-27	05/25/22 05:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-27	05/25/22 05:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	06/01/22 07:25 AM	105606
	H-27	05/25/22 05:00 PM	Aqueous	SW7470A	Mercury Aq Prep	06/02/22 10:45 AM	105627
2205310-08B	H-27	05/25/22 05:00 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-27	05/25/22 05:00 PM	Aqueous	E300	Anion Preparation	05/29/22 07:59 AM	105578
	H-27	05/25/22 05:00 PM	Aqueous	E300	Anion Preparation	05/31/22 09:00 AM	105596
	H-27	05/25/22 05:00 PM	Aqueous	M2540C	TDS Preparation	05/31/22 03:11 PM	105602

Lab Order: 2205310
Client: WSP-Golder
Project: Luminant - MLSES - Ash Pond Ar

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2205310-01A	H-28	Aqueous	SW7470A	Mercury Total: Aqueous	105626	1	06/03/22 11:08 AM	CETAC2_HG_220603C
	H-28	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	20	06/03/22 12:53 PM	ICP-MS4_220603B
	H-28	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/02/22 12:00 PM	ICP-MS5_220602A
2205310-01B	H-28	Aqueous	E300	Anions by IC method - Water	105578	10	05/29/22 10:54 AM	IC2_220529A
	H-28	Aqueous	E300	Anions by IC method - Water	105578	1	05/29/22 09:06 PM	IC2_220529A
	H-28	Aqueous	M2540C	Total Dissolved Solids	105602	1	05/31/22 05:50 PM	WC_220531C
2205310-02A	H-29	Aqueous	SW7470A	Mercury Total: Aqueous	105626	1	06/03/22 11:11 AM	CETAC2_HG_220603C
	H-29	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	10	06/03/22 12:55 PM	ICP-MS4_220603B
	H-29	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/02/22 12:03 PM	ICP-MS5_220602A
2205310-02B	H-29	Aqueous	E300	Anions by IC method - Water	105578	10	05/29/22 11:11 AM	IC2_220529A
	H-29	Aqueous	E300	Anions by IC method - Water	105578	100	05/29/22 11:28 AM	IC2_220529A
	H-29	Aqueous	E300	Anions by IC method - Water	105578	1	05/29/22 11:56 PM	IC2_220529A
	H-29	Aqueous	M2540C	Total Dissolved Solids	105602	1	05/31/22 05:50 PM	WC_220531C
2205310-03A	H-31	Aqueous	SW7470A	Mercury Total: Aqueous	105626	1	06/03/22 11:13 AM	CETAC2_HG_220603C
	H-31	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/02/22 12:06 PM	ICP-MS5_220602A
	H-31	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	50	06/03/22 12:58 PM	ICP-MS4_220603B
2205310-03B	H-31	Aqueous	E300	Anions by IC method - Water	105578	10	05/29/22 12:19 PM	IC2_220529A
	H-31	Aqueous	E300	Anions by IC method - Water	105578	100	05/29/22 12:36 PM	IC2_220529A
	H-31	Aqueous	E300	Anions by IC method - Water	105578	1	05/30/22 12:13 AM	IC2_220529A
	H-31	Aqueous	M2540C	Total Dissolved Solids	105602	1	05/31/22 05:50 PM	WC_220531C
2205310-04A	H-32	Aqueous	SW7470A	Mercury Total: Aqueous	105626	1	06/03/22 11:15 AM	CETAC2_HG_220603C
	H-32	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	10	06/03/22 01:00 PM	ICP-MS4_220603B
	H-32	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/02/22 12:08 PM	ICP-MS5_220602A
2205310-04B	H-32	Aqueous	E300	Anions by IC method - Water	105578	10	05/29/22 12:53 PM	IC2_220529A
	H-32	Aqueous	E300	Anions by IC method - Water	105578	1	05/30/22 12:30 AM	IC2_220529A
	H-32	Aqueous	M2540C	Total Dissolved Solids	105602	1	05/31/22 05:50 PM	WC_220531C

Lab Order: 2205310
Client: WSP-Golder
Project: Luminant - MLSES - Ash Pond Ar

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2205310-05A	H-33	Aqueous	SW7470A	Mercury Total: Aqueous	105627	1	06/03/22 10:18 AM	CETAC2_HG_220603C
	H-33	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/02/22 12:11 PM	ICP-MS5_220602A
	H-33	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	5	06/02/22 12:36 PM	ICP-MS5_220602A
	H-33	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/03/22 01:02 PM	ICP-MS4_220603B
2205310-05B	H-33	Aqueous	E300	Anions by IC method - Water	105578	10	05/29/22 01:10 PM	IC2_220529A
	H-33	Aqueous	E300	Anions by IC method - Water	105578	1	05/30/22 12:47 AM	IC2_220529A
	H-33	Aqueous	M2540C	Total Dissolved Solids	105602	1	05/31/22 05:50 PM	WC_220531C
2205310-06A	DUP-1	Aqueous	SW7470A	Mercury Total: Aqueous	105627	1	06/03/22 10:25 AM	CETAC2_HG_220603C
	DUP-1	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/03/22 01:04 PM	ICP-MS4_220603B
	DUP-1	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/02/22 12:13 PM	ICP-MS5_220602A
	DUP-1	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	5	06/02/22 12:38 PM	ICP-MS5_220602A
2205310-06B	DUP-1	Aqueous	E300	Anions by IC method - Water	105578	1	05/30/22 01:04 AM	IC2_220529A
	DUP-1	Aqueous	E300	Anions by IC method - Water	105578	10	05/29/22 01:27 PM	IC2_220529A
	DUP-1	Aqueous	E300	Anions by IC method - Water	105578	100	05/29/22 01:44 PM	IC2_220529A
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	105602	1	05/31/22 05:50 PM	WC_220531C
2205310-07A	H-26	Aqueous	SW7470A	Mercury Total: Aqueous	105627	1	06/03/22 10:28 AM	CETAC2_HG_220603C
	H-26	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/03/22 01:06 PM	ICP-MS4_220603B
	H-26	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/02/22 12:16 PM	ICP-MS5_220602A
2205310-07B	H-26	Aqueous	E300	Anions by IC method - Water	105578	10	05/29/22 02:01 PM	IC2_220529A
	H-26	Aqueous	E300	Anions by IC method - Water	105578	1	05/30/22 01:21 AM	IC2_220529A
	H-26	Aqueous	M2540C	Total Dissolved Solids	105602	1	05/31/22 05:50 PM	WC_220531C
2205310-08A	H-27	Aqueous	SW7470A	Mercury Total: Aqueous	105627	1	06/03/22 10:30 AM	CETAC2_HG_220603C
	H-27	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	50	06/03/22 01:08 PM	ICP-MS4_220603B
	H-27	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	105606	1	06/02/22 12:18 PM	ICP-MS5_220602A
2205310-08B	H-27	Aqueous	E300	Anions by IC method - Water	105578	10	05/29/22 04:34 PM	IC2_220529A
	H-27	Aqueous	E300	Anions by IC method - Water	105578	1	05/30/22 01:38 AM	IC2_220529A

Lab Order: 2205310
Client: WSP-Golder
Project: Luminant - MLSES - Ash Pond Ar

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2205310-08B	H-27	Aqueous	E300	Anions by IC method - Water	105596	100	05/31/22 04:08 PM	IC2_220531A
	H-27	Aqueous	M2540C	Total Dissolved Solids	105602	1	05/31/22 05:50 PM	WC_220531C

DHL Analytical, Inc.

Date: *13-Jul-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-28
Project:	Luminant - MLSES - Ash Pond Area - CCR	**Lab ID:**	2205310-01
Project No:	19122262	**Collection Date:**	05/25/22 11:20 AM
Lab Order:	2205310	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/02/22 12:00 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:00 PM
Barium	0.0144	0.00300	0.0100		mg/L	1	06/02/22 12:00 PM
Beryllium	0.00571	0.000300	0.00100		mg/L	1	06/02/22 12:00 PM
Boron	4.95	0.200	0.600		mg/L	20	06/03/22 12:53 PM
Cadmium	0.000848	0.000300	0.00100	J	mg/L	1	06/02/22 12:00 PM
Calcium	75.8	2.00	6.00		mg/L	20	06/03/22 12:53 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:00 PM
Cobalt	0.163	0.00300	0.00500		mg/L	1	06/02/22 12:00 PM
Lead	0.000599	0.000300	0.00100	J	mg/L	1	06/02/22 12:00 PM
Lithium	0.172	0.00500	0.0100		mg/L	1	06/02/22 12:00 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:00 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:00 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/02/22 12:00 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/03/22 11:08 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BTJ**
Chloride	87.2	3.00	10.0		mg/L	10	05/29/22 10:54 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	05/29/22 09:06 PM
Sulfate	670	10.0	30.0		mg/L	10	05/29/22 10:54 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1320	50.0	50.0		mg/L	1	05/31/22 05:50 PM

Qualifiers:

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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *13-Jul-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-29
Project:	Luminant - MLSES - Ash Pond Area - CCR	**Lab ID:**	2205310-02
Project No:	19122262	**Collection Date:**	05/25/22 12:15 PM
Lab Order:	2205310	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/02/22 12:03 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:03 PM
Barium	0.0132	0.00300	0.0100		mg/L	1	06/02/22 12:03 PM
Beryllium	0.00339	0.000300	0.00100		mg/L	1	06/02/22 12:03 PM
Boron	3.10	0.100	0.300		mg/L	10	06/03/22 12:55 PM
Cadmium	0.000521	0.000300	0.00100	J	mg/L	1	06/02/22 12:03 PM
Calcium	47.5	1.00	3.00		mg/L	10	06/03/22 12:55 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:03 PM
Cobalt	0.0964	0.00300	0.00500		mg/L	1	06/02/22 12:03 PM
Lead	0.000590	0.000300	0.00100	J	mg/L	1	06/02/22 12:03 PM
Lithium	0.102	0.00500	0.0100		mg/L	1	06/02/22 12:03 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:03 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:03 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/02/22 12:03 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	0.0000976	0.0000800	0.000200	J	mg/L	1	06/03/22 11:11 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BTJ**
Chloride	45.7	3.00	10.0		mg/L	10	05/29/22 11:11 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	05/29/22 11:56 PM
Sulfate	338	10.0	30.0		mg/L	10	05/29/22 11:11 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	654	10.0	10.0		mg/L	1	05/31/22 05:50 PM

Qualifiers:

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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *13-Jul-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-31
Project:	Luminant - MLSES - Ash Pond Area - CCR	**Lab ID:**	2205310-03
Project No:	19122262	**Collection Date:**	05/25/22 01:10 PM
Lab Order:	2205310	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/02/22 12:06 PM
Arsenic	0.00634	0.00200	0.00500		mg/L	1	06/02/22 12:06 PM
Barium	0.0143	0.00300	0.0100		mg/L	1	06/02/22 12:06 PM
Beryllium	0.0272	0.000300	0.00100		mg/L	1	06/02/22 12:06 PM
Boron	17.3	0.500	1.50		mg/L	50	06/03/22 12:58 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/02/22 12:06 PM
Calcium	255	5.00	15.0		mg/L	50	06/03/22 12:58 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:06 PM
Cobalt	0.543	0.00300	0.00500		mg/L	1	06/02/22 12:06 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/02/22 12:06 PM
Lithium	0.239	0.00500	0.0100		mg/L	1	06/02/22 12:06 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:06 PM
Selenium	0.00948	0.00200	0.00500		mg/L	1	06/02/22 12:06 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/02/22 12:06 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/03/22 11:13 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BTJ**
Chloride	205	3.00	10.0		mg/L	10	05/29/22 12:19 PM
Fluoride	1.16	0.100	0.400		mg/L	1	05/30/22 12:13 AM
Sulfate	2260	100	300		mg/L	100	05/29/22 12:36 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	3940	50.0	50.0		mg/L	1	05/31/22 05:50 PM

Qualifiers:

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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *13-Jul-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-32
Project:	Luminant - MLSES - Ash Pond Area - CCR	**Lab ID:**	2205310-04
Project No:	19122262	**Collection Date:**	05/25/22 02:00 PM
Lab Order:	2205310	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/02/22 12:08 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:08 PM
Barium	0.0159	0.00300	0.0100		mg/L	1	06/02/22 12:08 PM
Beryllium	0.00685	0.000300	0.00100		mg/L	1	06/02/22 12:08 PM
Boron	1.98	0.100	0.300		mg/L	10	06/03/22 01:00 PM
Cadmium	0.000338	0.000300	0.00100	J	mg/L	1	06/02/22 12:08 PM
Calcium	45.0	1.00	3.00		mg/L	10	06/03/22 01:00 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:08 PM
Cobalt	0.184	0.00300	0.00500		mg/L	1	06/02/22 12:08 PM
Lead	0.000536	0.000300	0.00100	J	mg/L	1	06/02/22 12:08 PM
Lithium	0.0940	0.00500	0.0100		mg/L	1	06/02/22 12:08 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:08 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:08 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/02/22 12:08 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/03/22 11:15 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BTJ**
Chloride	105	3.00	10.0		mg/L	10	05/29/22 12:53 PM
Fluoride	0.758	0.100	0.400		mg/L	1	05/30/22 12:30 AM
Sulfate	322	10.0	30.0		mg/L	10	05/29/22 12:53 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	775	10.0	10.0		mg/L	1	05/31/22 05:50 PM

Qualifiers:

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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *13-Jul-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-33
Project:	Luminant - MLSES - Ash Pond Area - CCR	**Lab ID:**	2205310-05
Project No:	19122262	**Collection Date:**	05/25/22 02:55 PM
Lab Order:	2205310	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/02/22 12:11 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:11 PM
Barium	0.0996	0.00300	0.0100		mg/L	1	06/02/22 12:11 PM
Beryllium	0.000536	0.000300	0.00100	J	mg/L	1	06/02/22 12:11 PM
Boron	0.0625	0.0100	0.0300		mg/L	1	06/03/22 01:02 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/02/22 12:11 PM
Calcium	28.9	0.500	1.50		mg/L	5	06/02/22 12:36 PM
Chromium	0.00696	0.00200	0.00500		mg/L	1	06/02/22 12:11 PM
Cobalt	0.0295	0.00300	0.00500		mg/L	1	06/02/22 12:11 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/02/22 12:11 PM
Lithium	0.189	0.00500	0.0100		mg/L	1	06/02/22 12:11 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:11 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:11 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/02/22 12:11 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/03/22 10:18 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BTJ**
Chloride	87.7	3.00	10.0		mg/L	10	05/29/22 01:10 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	05/30/22 12:47 AM
Sulfate	97.2	10.0	30.0		mg/L	10	05/29/22 01:10 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	446	10.0	10.0		mg/L	1	05/31/22 05:50 PM

Qualifiers:

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B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *13-Jul-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	DUP-1
Project:	Luminant - MLSES - Ash Pond Area - CCR	**Lab ID:**	2205310-06
Project No:	19122262	**Collection Date:**	05/25/22 02:55 PM
Lab Order:	2205310	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/02/22 12:13 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:13 PM
Barium	0.101	0.00300	0.0100		mg/L	1	06/02/22 12:13 PM
Beryllium	0.000533	0.000300	0.00100	J	mg/L	1	06/02/22 12:13 PM
Boron	0.0536	0.0100	0.0300		mg/L	1	06/03/22 01:04 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/02/22 12:13 PM
Calcium	29.1	0.500	1.50		mg/L	5	06/02/22 12:38 PM
Chromium	0.00709	0.00200	0.00500		mg/L	1	06/02/22 12:13 PM
Cobalt	0.0301	0.00300	0.00500		mg/L	1	06/02/22 12:13 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	06/02/22 12:13 PM
Lithium	0.191	0.00500	0.0100		mg/L	1	06/02/22 12:13 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:13 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:13 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/02/22 12:13 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/03/22 10:25 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BTJ**
Chloride	88.0	3.00	10.0		mg/L	10	05/29/22 01:27 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	05/30/22 01:04 AM
Sulfate	96.1	10.0	30.0		mg/L	10	05/29/22 01:27 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	460	10.0	10.0		mg/L	1	05/31/22 05:50 PM

Qualifiers:

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *13-Jul-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-26
Project:	Luminant - MLSES - Ash Pond Area - CCR	**Lab ID:**	2205310-07
Project No:	19122262	**Collection Date:**	05/25/22 04:05 PM
Lab Order:	2205310	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/02/22 12:16 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:16 PM
Barium	0.0608	0.00300	0.0100		mg/L	1	06/02/22 12:16 PM
Beryllium	0.00169	0.000300	0.00100		mg/L	1	06/02/22 12:16 PM
Boron	0.410	0.0100	0.0300		mg/L	1	06/03/22 01:06 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	06/02/22 12:16 PM
Calcium	12.8	0.100	0.300		mg/L	1	06/02/22 12:16 PM
Chromium	0.00269	0.00200	0.00500	J	mg/L	1	06/02/22 12:16 PM
Cobalt	0.0246	0.00300	0.00500		mg/L	1	06/02/22 12:16 PM
Lead	0.00138	0.000300	0.00100		mg/L	1	06/02/22 12:16 PM
Lithium	0.0174	0.00500	0.0100		mg/L	1	06/02/22 12:16 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:16 PM
Selenium	0.0139	0.00200	0.00500		mg/L	1	06/02/22 12:16 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/02/22 12:16 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/03/22 10:28 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BTJ**
Chloride	67.8	3.00	10.0		mg/L	10	05/29/22 02:01 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	05/30/22 01:21 AM
Sulfate	48.8	10.0	30.0		mg/L	10	05/29/22 02:01 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	257	10.0	10.0		mg/L	1	05/31/22 05:50 PM

Qualifiers:

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *13-Jul-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-27
Project:	Luminant - MLSES - Ash Pond Area - CCR	**Lab ID:**	2205310-08
Project No:	19122262	**Collection Date:**	05/25/22 05:00 PM
Lab Order:	2205310	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	06/02/22 12:18 PM
Arsenic	0.0111	0.00200	0.00500		mg/L	1	06/02/22 12:18 PM
Barium	0.00857	0.00300	0.0100	J	mg/L	1	06/02/22 12:18 PM
Beryllium	0.0294	0.000300	0.00100		mg/L	1	06/02/22 12:18 PM
Boron	15.6	0.500	1.50		mg/L	50	06/03/22 01:08 PM
Cadmium	0.000666	0.000300	0.00100	J	mg/L	1	06/02/22 12:18 PM
Calcium	199	5.00	15.0		mg/L	50	06/03/22 01:08 PM
Chromium	0.00475	0.00200	0.00500	J	mg/L	1	06/02/22 12:18 PM
Cobalt	0.390	0.00300	0.00500		mg/L	1	06/02/22 12:18 PM
Lead	0.00154	0.000300	0.00100		mg/L	1	06/02/22 12:18 PM
Lithium	0.144	0.00500	0.0100		mg/L	1	06/02/22 12:18 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	06/02/22 12:18 PM
Selenium	0.0120	0.00200	0.00500		mg/L	1	06/02/22 12:18 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	06/02/22 12:18 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **JVR**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	06/03/22 10:30 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BTJ**
Chloride	155	3.00	10.0		mg/L	10	05/29/22 04:34 PM
Fluoride	1.47	0.100	0.400		mg/L	1	05/30/22 01:38 AM
Sulfate	1850	100	300		mg/L	100	05/31/22 04:08 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	3180	50.0	50.0		mg/L	1	05/31/22 05:50 PM

Qualifiers:

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_220426A

Sample ID: **DCS-105031** Batch ID: **105031** TestNo: **SW7470A** Units: **mg/L**
SampType: **DCS** Run ID: **CETAC2_HG_220426A** Analysis Date: **4/26/2022 1:00:45 PM** Prep Date: **4/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000182	0.000200	0.000200	0	91.0	82	119	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_220603C

The QC data in batch 105626 applies to the following samples: 2205310-01A, 2205310-02A, 2205310-03A, 2205310-04A

Sample ID: **MB-105626**	Batch ID: **105626**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MBLK**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:34:52 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID: **LCS-105626**	Batch ID: **105626**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCS**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:37:08 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00198	0.000200	0.00200	0	99.0	85	115			

Sample ID: **LCSD-105626**	Batch ID: **105626**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:39:24 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00199	0.000200	0.00200	0	99.5	85	115	0.504	15	

Sample ID: **2205298-01C MS**	Batch ID: **105626**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MS**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:46:12 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00202	0.000200	0.00200	0	101	80	120			

Sample ID: **2205298-01C MSD**	Batch ID: **105626**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MSD**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:48:27 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00203	0.000200	0.00200	0	102	80	120	0.494	15	

Sample ID: **2205298-01C SD**	Batch ID: **105626**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **SD**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:50:43 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID: **2205298-01C PDS**	Batch ID: **105626**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **PDS**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:52:59 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00241	0.000200	0.00250	0	96.4	85	115			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_220603C

The QC data in batch 105627 applies to the following samples: 2205310-05A, 2205310-06A, 2205310-07A, 2205310-08A

Sample ID: **MB-105627**	Batch ID: **105627**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MBLK**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 9:51:40 AM**	Prep Date: **6/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID: **LCS-105627**	Batch ID: **105627**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCS**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 9:56:12 AM**	Prep Date: **6/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00208	0.000200	0.00200	0	104	85	115			

Sample ID: **LCSD-105627**	Batch ID: **105627**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 9:58:28 AM**	Prep Date: **6/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00203	0.000200	0.00200	0	102	85	115	2.43	15	

Sample ID: **2205280-02B MS**	Batch ID: **105627**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MS**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:05:16 AM**	Prep Date: **6/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0107	0.00100	0.0100	0	106	80	120			

Sample ID: **2205280-02B MSD**	Batch ID: **105627**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MSD**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:07:32 AM**	Prep Date: **6/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0106	0.00100	0.0100	0	106	80	120	0.943	15	

Sample ID: **2205280-02B SD**	Batch ID: **105627**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **SD**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:09:49 AM**	Prep Date: **6/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.00200	0.00500	0	0				0	10	

Sample ID: **2205280-02B PDS**	Batch ID: **105627**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **PDS**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:12:05 AM**	Prep Date: **6/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0124	0.00100	0.0125	0	98.8	85	115			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_220603C

Sample ID: **ICV-220603**	Batch ID: **R121414**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **ICV**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 9:19:55 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00393	0.000200	0.00400	0	98.2	90	110			

Sample ID: **CCV1-220603**	Batch ID: **R121414**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 10:21:12 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00205	0.000200	0.00200	0	103	90	110			

Sample ID: **CCV2-220603**	Batch ID: **R121414**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 11:04:21 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00201	0.000200	0.00200	0	101	90	110			

Sample ID: **CCV3-220603**	Batch ID: **R121414**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_220603C**	Analysis Date: **6/3/2022 11:31:38 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00202	0.000200	0.00200	0	101	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_220511B

Sample ID: **DCS2-105256**	Batch ID: **105256**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS2**	Run ID: **ICP-MS4_220511B**	Analysis Date: **5/11/2022 12:23:00 PM**	Prep Date: **5/10/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.318	0.300	0.300	0	106	70	130	0	0	

Sample ID: **DCS4-105256**	Batch ID: **105256**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS4**	Run ID: **ICP-MS4_220511B**	Analysis Date: **5/11/2022 12:31:00 PM**	Prep Date: **5/10/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0327	0.0300	0.0300	0	109	70	130	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: **ICP-MS4_220603B**

The QC data in batch 105606 applies to the following samples: 2205310-01A, 2205310-02A, 2205310-03A, 2205310-04A, 2205310-05A, 2205310-06A, 2205310-07A, 2205310-08A

Sample ID: **MB-105606** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_220603B** Analysis Date: **6/3/2022 12:41:00 PM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID: **LCS-105606** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_220603B** Analysis Date: **6/3/2022 12:43:00 PM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.194	0.0300	0.200	0	96.9	80	120			

Sample ID: **LCSD-105606** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_220603B** Analysis Date: **6/3/2022 12:45:00 PM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.200	0.0300	0.200	0	100	80	120	3.36	15	

Sample ID: **2205311-05A SD** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_220603B** Analysis Date: **6/3/2022 12:51:00 PM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0956	0.150	0	0.102				6.00	20	

Sample ID: **2205311-05A PDS** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_220603B** Analysis Date: **6/3/2022 1:12:00 PM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.269	0.0300	0.200	0.102	84.0	75	125			

Sample ID: **2205311-05A MS** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_220603B** Analysis Date: **6/3/2022 1:14:00 PM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.283	0.0300	0.200	0.102	90.6	75	125			

Sample ID: **2205311-05A MSD** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_220603B** Analysis Date: **6/3/2022 1:16:00 PM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.283	0.0300	0.200	0.102	90.6	75	125	0.001	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_220603B

Sample ID: **ICV-220603**	Batch ID: **R121430**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_220603B**	Analysis Date: **6/3/2022 10:39:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.101	0.0300	0.100	0	101	90	110			
Calcium	2.67	0.300	2.50	0	107	90	110			

Sample ID: **LCVL-220603**	Batch ID: **R121430**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_220603B**	Analysis Date: **6/3/2022 10:50:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0196	0.0300	0.0200	0	98.2	80	120			
Calcium	0.0907	0.300	0.100	0	90.7	80	120			

Sample ID: **CCV2-220603**	Batch ID: **R121430**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_220603B**	Analysis Date: **6/3/2022 12:11:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.198	0.0300	0.200	0	99.0	90	110			
Calcium	5.42	0.300	5.00	0	108	90	110			

Sample ID: **CCV3-220603**	Batch ID: **R121430**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_220603B**	Analysis Date: **6/3/2022 1:18:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.199	0.0300	0.200	0	99.4	90	110			
Calcium	5.33	0.300	5.00	0	107	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: **ICP-MS5_220519B**

Sample ID: **DCS1-105256**	Batch ID: **105256**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS**	Run ID: **ICP-MS5_220519B**	Analysis Date: **5/19/2022 11:00:00 AM**	Prep Date: **5/10/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00106	0.00250	0.00100	0	106	70	130	0	0	
Beryllium	0.000564	0.00100	0.000500	0	113	70	130	0	0	
Cadmium	0.000522	0.00100	0.000500	0	104	70	130	0	0	
Lead	0.000544	0.00100	0.000500	0	109	70	130	0	0	
Thallium	0.000552	0.00150	0.000500	0	110	70	130	0	0	

Sample ID: **DCS2-105256**	Batch ID: **105256**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS2**	Run ID: **ICP-MS5_220519B**	Analysis Date: **5/19/2022 11:03:00 AM**	Prep Date: **5/10/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.348	0.300	0.300	0	116	70	130	0	0	

Sample ID: **DCS3-105256**	Batch ID: **105256**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS3**	Run ID: **ICP-MS5_220519B**	Analysis Date: **5/19/2022 11:11:00 AM**	Prep Date: **5/10/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00535	0.00500	0.00500	0	107	70	130	0	0	
Barium	0.00526	0.0100	0.00500	0	105	70	130	0	0	
Chromium	0.00561	0.00500	0.00500	0	112	70	130	0	0	
Cobalt	0.00556	0.00500	0.00500	0	111	70	130	0	0	
Lithium	0.00572	0.0100	0.00500	0	114	70	130	0	0	
Molybdenum	0.00525	0.00500	0.00500	0	105	70	130	0	0	
Selenium	0.00532	0.00500	0.00500	0	106	70	130	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: **ICP-MS5_220602A**

The QC data in batch 105606 applies to the following samples: 2205310-01A, 2205310-02A, 2205310-03A, 2205310-04A, 2205310-05A, 2205310-06A, 2205310-07A, 2205310-08A

Sample ID: **MB-105606** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_220602A** Analysis Date: **6/2/2022 10:59:00 AM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								
Selenium	<0.00200	0.00500								
Thallium	<0.000500	0.00150								

Sample ID: **LCS-105606** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_220602A** Analysis Date: **6/2/2022 11:02:00 AM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.4	80	120			
Arsenic	0.205	0.00500	0.200	0	102	80	120			
Barium	0.203	0.0100	0.200	0	102	80	120			
Beryllium	0.201	0.00100	0.200	0	101	80	120			
Cadmium	0.205	0.00100	0.200	0	102	80	120			
Calcium	4.83	0.300	5.00	0	96.5	80	120			
Chromium	0.200	0.00500	0.200	0	100	80	120			
Cobalt	0.206	0.00500	0.200	0	103	80	120			
Lead	0.199	0.00100	0.200	0	99.5	80	120			
Lithium	0.200	0.0100	0.200	0	100	80	120			
Molybdenum	0.193	0.00500	0.200	0	96.6	80	120			
Selenium	0.207	0.00500	0.200	0	103	80	120			
Thallium	0.209	0.00150	0.200	0	104	80	120			

Sample ID: **LCSD-105606** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_220602A** Analysis Date: **6/2/2022 11:05:00 AM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.201	0.00250	0.200	0	100	80	120	0.993	15	
Arsenic	0.203	0.00500	0.200	0	102	80	120	0.769	15	
Barium	0.201	0.0100	0.200	0	101	80	120	0.752	15	

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220602A

Sample ID: **LCSD-105606** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_220602A** Analysis Date: **6/2/2022 11:05:00 AM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.203	0.00100	0.200	0	101	80	120	0.784	15	
Cadmium	0.206	0.00100	0.200	0	103	80	120	0.645	15	
Calcium	5.28	0.300	5.00	0	106	80	120	8.99	15	
Chromium	0.203	0.00500	0.200	0	102	80	120	1.71	15	
Cobalt	0.207	0.00500	0.200	0	103	80	120	0.353	15	
Lead	0.200	0.00100	0.200	0	99.9	80	120	0.419	15	
Lithium	0.202	0.0100	0.200	0	101	80	120	0.638	15	
Molybdenum	0.195	0.00500	0.200	0	97.3	80	120	0.775	15	
Selenium	0.207	0.00500	0.200	0	103	80	120	0.076	15	
Thallium	0.208	0.00150	0.200	0	104	80	120	0.462	15	

Sample ID: **2205311-05A SD** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_220602A** Analysis Date: **6/2/2022 11:14:00 AM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	20	
Arsenic	<0.0100	0.0250	0	0				0	20	
Barium	0.0349	0.0500	0	0.0347				0.638	20	
Beryllium	<0.00150	0.00500	0	0.000467				0	20	
Cadmium	<0.00150	0.00500	0	0				0	20	
Calcium	15.2	1.50	0	15.4				1.26	20	
Chromium	<0.0100	0.0250	0	0				0	20	
Cobalt	<0.0150	0.0250	0	0				0	20	
Lead	<0.00150	0.00500	0	0.000572				0	20	
Lithium	<0.0250	0.0500	0	0.0196				0	20	
Molybdenum	<0.0100	0.0250	0	0				0	20	
Selenium	<0.0100	0.0250	0	0.00345				0	20	
Thallium	<0.00250	0.00750	0	0				0	20	

Sample ID: **2205311-05A PDS** Batch ID: **105606** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_220602A** Analysis Date: **6/2/2022 11:39:00 AM** Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	100	75	125			
Arsenic	0.194	0.00500	0.200	0	97.1	75	125			
Barium	0.238	0.0100	0.200	0.0347	102	75	125			
Beryllium	0.195	0.00100	0.200	0.000467	97.0	75	125			
Cadmium	0.203	0.00100	0.200	0	102	75	125			
Calcium	19.5	0.300	5.00	15.3	82.2	75	125			
Chromium	0.205	0.00500	0.200	0	103	75	125			
Cobalt	0.207	0.00500	0.200	0	103	75	125			

Qualifiers:

B	Analyte detected in the associated Method Blank
J	Analyte detected between MDL and RL
ND	Not Detected at the Method Detection Limit
RL	Reporting Limit
J	Analyte detected between SDL and RL
DF	Dilution Factor
MDL	Method Detection Limit
R	RPD outside accepted control limits
S	Spike Recovery outside control limits
N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220602A

Sample ID: **2205311-05A PDS**	Batch ID: **105606**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_220602A**	Analysis Date: **6/2/2022 11:39:00 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.201	0.00100	0.200	0.000572	100	75	125			
Lithium	0.217	0.0100	0.200	0.0196	98.8	75	125			
Molybdenum	0.189	0.00500	0.200	0	94.6	75	125			
Selenium	0.203	0.00500	0.200	0.00345	99.7	75	125			
Thallium	0.210	0.00150	0.200	0	105	75	125			

Sample ID: **2205311-05A MS**	Batch ID: **105606**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS5_220602A**	Analysis Date: **6/2/2022 11:42:00 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.4	75	125			
Arsenic	0.202	0.00500	0.200	0	101	75	125			
Barium	0.240	0.0100	0.200	0.0347	103	75	125			
Beryllium	0.198	0.00100	0.200	0.000467	98.8	75	125			
Cadmium	0.201	0.00100	0.200	0	101	75	125			
Calcium	20.3	0.300	5.00	15.3	99.0	75	125			
Chromium	0.199	0.00500	0.200	0	99.4	75	125			
Cobalt	0.206	0.00500	0.200	0	103	75	125			
Lead	0.198	0.00100	0.200	0.000572	98.5	75	125			
Lithium	0.218	0.0100	0.200	0.0196	99.0	75	125			
Molybdenum	0.192	0.00500	0.200	0	96.1	75	125			
Selenium	0.205	0.00500	0.200	0.00345	101	75	125			
Thallium	0.205	0.00150	0.200	0	103	75	125			

Sample ID: **2205311-05A MSD**	Batch ID: **105606**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_220602A**	Analysis Date: **6/2/2022 11:45:00 AM**	Prep Date: **6/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.199	0.00250	0.200	0	99.3	75	125	0.162	15	
Arsenic	0.202	0.00500	0.200	0	101	75	125	0.073	15	
Barium	0.236	0.0100	0.200	0.0347	101	75	125	1.51	15	
Beryllium	0.198	0.00100	0.200	0.000467	98.7	75	125	0.161	15	
Cadmium	0.201	0.00100	0.200	0	101	75	125	0.021	15	
Calcium	20.2	0.300	5.00	15.3	96.4	75	125	0.646	15	
Chromium	0.200	0.00500	0.200	0	99.9	75	125	0.498	15	
Cobalt	0.207	0.00500	0.200	0	104	75	125	0.609	15	
Lead	0.197	0.00100	0.200	0.000572	98.5	75	125	0.035	15	
Lithium	0.217	0.0100	0.200	0.0196	98.7	75	125	0.254	15	
Molybdenum	0.192	0.00500	0.200	0	96.2	75	125	0.092	15	
Selenium	0.205	0.00500	0.200	0.00345	101	75	125	0.228	15	
Thallium	0.207	0.00150	0.200	0	104	75	125	1.03	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220602A

Sample ID: **ICV-220602** Batch ID: **R121405** TestNo: **SW6020B** Units: **mg/L**
SampType: **ICV** Run ID: **ICP-MS5_220602A** Analysis Date: **6/2/2022 10:45:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.103	0.00250	0.100	0	103	90	110			
Arsenic	0.101	0.00500	0.100	0	101	90	110			
Barium	0.103	0.0100	0.100	0	103	90	110			
Beryllium	0.0988	0.00100	0.100	0	98.8	90	110			
Cadmium	0.101	0.00100	0.100	0	101	90	110			
Calcium	2.59	0.300	2.50	0	104	90	110			
Chromium	0.102	0.00500	0.100	0	102	90	110			
Cobalt	0.103	0.00500	0.100	0	103	90	110			
Lead	0.101	0.00100	0.100	0	101	90	110			
Lithium	0.100	0.0100	0.100	0	100	90	110			
Molybdenum	0.0947	0.00500	0.100	0	94.7	90	110			
Selenium	0.102	0.00500	0.100	0	102	90	110			
Thallium	0.0981	0.00150	0.100	0	98.1	90	110			

Sample ID: **LCVL-220602** Batch ID: **R121405** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCVL** Run ID: **ICP-MS5_220602A** Analysis Date: **6/2/2022 10:51:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00228	0.00250	0.00200	0	114	80	120			
Arsenic	0.00514	0.00500	0.00500	0	103	80	120			
Barium	0.00509	0.0100	0.00500	0	102	80	120			
Beryllium	0.00116	0.00100	0.00100	0	116	80	120			
Cadmium	0.000989	0.00100	0.00100	0	98.9	80	120			
Calcium	0.110	0.300	0.100	0	110	80	120			
Chromium	0.00506	0.00500	0.00500	0	101	80	120			
Cobalt	0.00506	0.00500	0.00500	0	101	80	120			
Lead	0.00104	0.00100	0.00100	0	104	80	120			
Lithium	0.0101	0.0100	0.0100	0	101	80	120			
Molybdenum	0.00477	0.00500	0.00500	0	95.5	80	120			
Selenium	0.00520	0.00500	0.00500	0	104	80	120			
Thallium	0.00106	0.00150	0.00100	0	106	80	120			

Sample ID: **CCV1-220602** Batch ID: **R121405** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220602A** Analysis Date: **6/2/2022 11:48:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.203	0.00250	0.200	0	101	90	110			
Arsenic	0.205	0.00500	0.200	0	102	90	110			
Barium	0.204	0.0100	0.200	0	102	90	110			
Beryllium	0.201	0.00100	0.200	0	101	90	110			
Cadmium	0.205	0.00100	0.200	0	102	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220602A

Sample ID: **CCV1-220602**	Batch ID: **R121405**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_220602A**	Analysis Date: **6/2/2022 11:48:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.24	0.300	5.00	0	105	90	110			
Chromium	0.201	0.00500	0.200	0	101	90	110			
Cobalt	0.207	0.00500	0.200	0	104	90	110			
Lead	0.200	0.00100	0.200	0	99.9	90	110			
Lithium	0.199	0.0100	0.200	0	99.5	90	110			
Molybdenum	0.195	0.00500	0.200	0	97.3	90	110			
Selenium	0.206	0.00500	0.200	0	103	90	110			
Thallium	0.211	0.00150	0.200	0	105	90	110			

Sample ID: **CCV2-220602**	Batch ID: **R121405**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_220602A**	Analysis Date: **6/2/2022 12:24:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.202	0.00250	0.200	0	101	90	110			
Arsenic	0.204	0.00500	0.200	0	102	90	110			
Barium	0.204	0.0100	0.200	0	102	90	110			
Beryllium	0.197	0.00100	0.200	0	98.5	90	110			
Cadmium	0.204	0.00100	0.200	0	102	90	110			
Calcium	5.12	0.300	5.00	0	102	90	110			
Chromium	0.201	0.00500	0.200	0	100	90	110			
Cobalt	0.209	0.00500	0.200	0	104	90	110			
Lead	0.201	0.00100	0.200	0	101	90	110			
Lithium	0.197	0.0100	0.200	0	98.3	90	110			
Molybdenum	0.197	0.00500	0.200	0	98.6	90	110			
Selenium	0.206	0.00500	0.200	0	103	90	110			
Thallium	0.213	0.00150	0.200	0	107	90	110			

Sample ID: **CCV3-220602**	Batch ID: **R121405**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_220602A**	Analysis Date: **6/2/2022 12:45:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.12	0.300	5.00	0	102	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220526A

Sample ID: **DCS3-105533** Batch ID: **105533** TestNo: **E300** Units: **mg/L**
SampType: **DCS3** Run ID: **IC2_220526A** Analysis Date: **5/26/2022 7:02:08 PM** Prep Date: **5/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.988	1.00	1.000	0	98.8	70	130	0	0	
Fluoride	0.383	0.400	0.4000	0	95.8	70	130	0	0	
Sulfate	3.02	3.00	3.000	0	101	70	130	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220529A

The QC data in batch 105578 applies to the following samples: 2205310-01B, 2205310-02B, 2205310-03B, 2205310-04B, 2205310-05B, 2205310-06B, 2205310-07B, 2205310-08B

Sample ID: **MB-105578** Batch ID: **105578** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC2_220529A** Analysis Date: **5/29/2022 9:53:05 AM** Prep Date: **5/29/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	<0.300	1.00								
Fluoride	<0.100	0.400								
Sulfate	<1.00	3.00								

Sample ID: **LCS-105578** Batch ID: **105578** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC2_220529A** Analysis Date: **5/29/2022 10:10:05 AM** Prep Date: **5/29/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.54	1.00	10.00	0	95.4	90	110			
Fluoride	3.80	0.400	4.000	0	95.0	90	110			
Sulfate	29.1	3.00	30.00	0	97.0	90	110			

Sample ID: **LCSD-105578** Batch ID: **105578** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC2_220529A** Analysis Date: **5/29/2022 10:27:05 AM** Prep Date: **5/29/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.60	1.00	10.00	0	96.0	90	110	0.632	20	
Fluoride	3.83	0.400	4.000	0	95.9	90	110	0.938	20	
Sulfate	29.3	3.00	30.00	0	97.8	90	110	0.747	20	

Sample ID: **2205310-02BMS** Batch ID: **105578** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_220529A** Analysis Date: **5/29/2022 11:45:39 AM** Prep Date: **5/29/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	1970	100	2000	55.92	95.5	90	110			
Fluoride	2010	40.0	2000	0	101	90	110			
Sulfate	2210	300	2000	343.7	93.2	90	110			

Sample ID: **2205310-02BMSD** Batch ID: **105578** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_220529A** Analysis Date: **5/29/2022 12:02:39 PM** Prep Date: **5/29/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	1980	100	2000	55.92	96.1	90	110	0.578	20	
Fluoride	2000	40.0	2000	0	100	90	110	0.752	20	
Sulfate	2220	300	2000	343.7	94.0	90	110	0.696	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220529A

Sample ID: **2205311-02BMS**	Batch ID: **105578**	TestNo: **E300**	Units: **mg/L**
SampType: **MS**	Run ID: **IC2_220529A**	Analysis Date: **5/29/2022 5:08:38 PM**	Prep Date: **5/29/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	252	10.0	200.0	47.29	102	90	110			
Fluoride	210	4.00	200.0	0	105	90	110			
Sulfate	535	30.0	200.0	346.1	94.5	90	110			

Sample ID: **2205311-02BMSD**	Batch ID: **105578**	TestNo: **E300**	Units: **mg/L**
SampType: **MSD**	Run ID: **IC2_220529A**	Analysis Date: **5/29/2022 5:25:38 PM**	Prep Date: **5/29/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	253	10.0	200.0	47.29	103	90	110	0.372	20	
Fluoride	210	4.00	200.0	0	105	90	110	0.304	20	
Sulfate	536	30.0	200.0	346.1	94.9	90	110	0.115	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220529A

Sample ID: **ICV-220529**	Batch ID: **R121321**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_220529A**	Analysis Date: **5/29/2022 9:19:05 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	24.8	1.00	25.00	0	99.1	90	110			
Fluoride	9.88	0.400	10.00	0	98.8	90	110			
Sulfate	74.6	3.00	75.00	0	99.5	90	110			

Sample ID: **CCV1-220529**	Batch ID: **R121321**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220529A**	Analysis Date: **5/29/2022 2:52:39 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.60	1.00	10.00	0	96.0	90	110			
Fluoride	3.85	0.400	4.000	0	96.3	90	110			
Sulfate	29.3	3.00	30.00	0	97.5	90	110			

Sample ID: **CCV2-220529**	Batch ID: **R121321**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220529A**	Analysis Date: **5/29/2022 7:24:39 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.63	1.00	10.00	0	96.3	90	110			
Fluoride	3.86	0.400	4.000	0	96.6	90	110			
Sulfate	29.5	3.00	30.00	0	98.2	90	110			

Sample ID: **CCV3-220529**	Batch ID: **R121321**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220529A**	Analysis Date: **5/29/2022 11:22:38 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.84	0.400	4.000	0	96.0	90	110			

Sample ID: **CCV4-220529**	Batch ID: **R121321**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220529A**	Analysis Date: **5/30/2022 2:46:38 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.84	0.400	4.000	0	95.9	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220531A

The QC data in batch 105596 applies to the following samples: 2205310-08B

Sample ID: **MB-105596**	Batch ID: **105596**	TestNo: **E300**	Units: **mg/L**
SampType: **MBLK**	Run ID: **IC2_220531A**	Analysis Date: **5/31/2022 11:01:09 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	<1.00	3.00								

Sample ID: **LCS-105596**	Batch ID: **105596**	TestNo: **E300**	Units: **mg/L**
SampType: **LCS**	Run ID: **IC2_220531A**	Analysis Date: **5/31/2022 11:18:09 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	28.7	3.00	30.00	0	95.7	90	110			

Sample ID: **LCSD-105596**	Batch ID: **105596**	TestNo: **E300**	Units: **mg/L**
SampType: **LCSD**	Run ID: **IC2_220531A**	Analysis Date: **5/31/2022 11:35:09 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	28.9	3.00	30.00	0	96.3	90	110	0.675	20	

Sample ID: **2205310-08BMS**	Batch ID: **105596**	TestNo: **E300**	Units: **mg/L**
SampType: **MS**	Run ID: **IC2_220531A**	Analysis Date: **5/31/2022 4:25:27 PM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	3640	300	2000	1850	89.3	90	110			S

Sample ID: **2205310-08BMSD**	Batch ID: **105596**	TestNo: **E300**	Units: **mg/L**
SampType: **MSD**	Run ID: **IC2_220531A**	Analysis Date: **5/31/2022 4:42:27 PM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	3660	300	2000	1850	90.6	90	110	0.676	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220531A

Sample ID: **ICV-220531**	Batch ID: **R121336**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_220531A**	Analysis Date: **5/31/2022 10:27:09 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	73.3	3.00	75.00	0	97.7	90	110			

Sample ID: **CCV1-220531**	Batch ID: **R121336**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220531A**	Analysis Date: **5/31/2022 7:32:27 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	28.9	3.00	30.00	0	96.3	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

ANALYTICAL QC SUMMARY REPORT

RunID: WC_220531C

The QC data in batch 105602 applies to the following samples: 2205310-01B, 2205310-02B, 2205310-03B, 2205310-04B, 2205310-05B, 2205310-06B, 2205310-07B, 2205310-08B

Sample ID: **MB-105602** Batch ID: **105602** TestNo: **M2540C** Units: **mg/L**
SampType: **MBLK** Run ID: **WC_220531C** Analysis Date: **5/31/2022 5:50:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	<10.0	10.0								

Sample ID: **LCS-105602** Batch ID: **105602** TestNo: **M2540C** Units: **mg/L**
SampType: **LCS** Run ID: **WC_220531C** Analysis Date: **5/31/2022 5:50:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	762	10.0	745.6	0	102	90	113			

Sample ID: **2205310-03B-DUP** Batch ID: **105602** TestNo: **M2540C** Units: **mg/L**
SampType: **DUP** Run ID: **WC_220531C** Analysis Date: **5/31/2022 5:50:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	3940	50.0	0	3935				0	5	

Sample ID: **2205310-08B-DUP** Batch ID: **105602** TestNo: **M2540C** Units: **mg/L**
SampType: **DUP** Run ID: **WC_220531C** Analysis Date: **5/31/2022 5:50:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	3190	50.0	0	3175				0.314	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2205310
Project: Luminant - MLSES - Ash Pond Area - CCR

MQL SUMMARY REPORT

TestNo: E300	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Chloride	0.300	1.00
Fluoride	0.100	0.400
Sulfate	1.00	3.00

TestNo: SW6020B	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Antimony	0.000800	0.00250
Arsenic	0.00200	0.00500
Barium	0.00300	0.0100
Beryllium	0.000300	0.00100
Boron	0.0100	0.0300
Cadmium	0.000300	0.00100
Calcium	0.100	0.300
Chromium	0.00200	0.00500
Cobalt	0.00300	0.00500
Lead	0.000300	0.00100
Lithium	0.00500	0.0100
Molybdenum	0.00200	0.00500
Selenium	0.00200	0.00500
Thallium	0.000500	0.00150

TestNo: SW7470A	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Mercury	0.0000800	0.000200

TestNo: M2540C	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Total Dissolved Solids (Residue, Filt	10.0	10.0

Qualifiers: MQL -Method Quantitation Limit as defined by TRRP
MDL -Method Detection Limit as defined by TRRP

ANALYTICAL REPORT

July 12, 2022

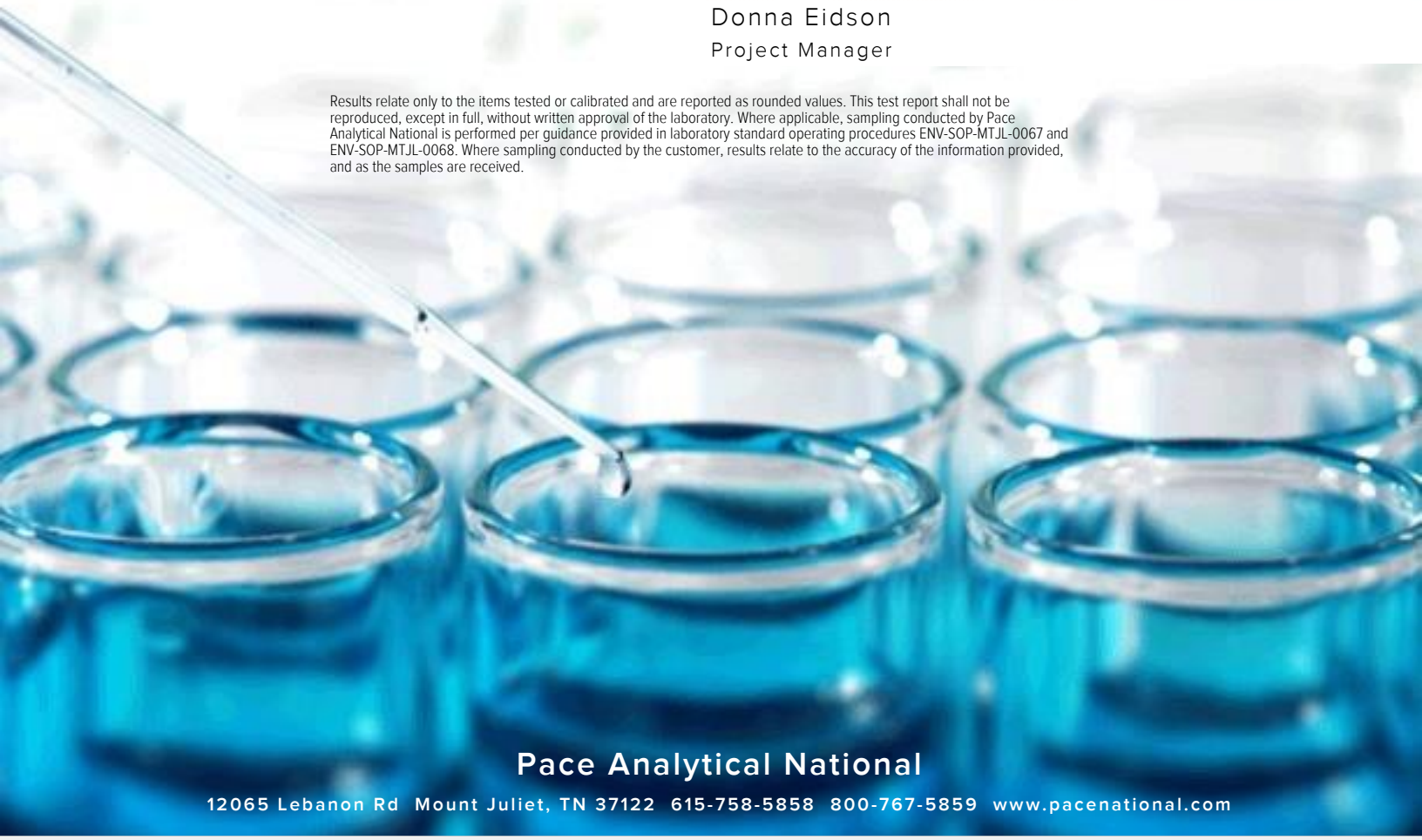
DHL Analytical, Inc.

Sample Delivery Group:	L1500875
Samples Received:	06/03/2022
Project Number:	2205310L1500875
Description:	

Report To: John DuPont
2300 Double Creek Drive
Round Rock, TX 78664

Entire Report Reviewed By:

Donna Eidson
Project Manager



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H-28 L1500875-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	05/25/22 11:20	06/03/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1884834	1	06/28/22 14:03	07/11/22 10:36	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1886267	1	06/28/22 15:52	07/11/22 10:36	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1886267	1	06/28/22 15:52	06/29/22 18:42	RGT	Mt. Juliet, TN

H-29 L1500875-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	05/25/22 12:15	06/03/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1884834	1	06/28/22 14:03	07/11/22 10:36	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1886267	1	06/28/22 15:52	07/11/22 10:36	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1886267	1	06/28/22 15:52	06/29/22 18:42	RGT	Mt. Juliet, TN

H-31 L1500875-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	05/25/22 13:10	06/03/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1886066	1	06/30/22 09:24	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1886267	1	06/28/22 15:52	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1886267	1	06/28/22 15:52	06/29/22 18:42	RGT	Mt. Juliet, TN

H-32 L1500875-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	05/25/22 14:00	06/03/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1886066	1	06/30/22 09:24	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1886267	1	06/28/22 15:52	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1886267	1	06/28/22 15:52	06/29/22 18:42	RGT	Mt. Juliet, TN

H-33 L1500875-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	05/25/22 14:55	06/03/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1886066	1	06/30/22 09:24	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1886267	1	06/28/22 15:52	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1886267	1	06/28/22 15:52	06/29/22 18:42	RGT	Mt. Juliet, TN

DUP-1 L1500875-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	05/25/22 14:55	06/03/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1886066	1	06/30/22 09:24	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1886267	1	06/28/22 15:52	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1886267	1	06/28/22 15:52	06/29/22 18:42	RGT	Mt. Juliet, TN

H-26 L1500875-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	05/25/22 16:05	06/03/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1886066	1	06/30/22 09:24	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1886267	1	06/28/22 15:52	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1886267	1	06/28/22 15:52	06/29/22 18:42	RGT	Mt. Juliet, TN

H-27 L1500875-08 Non-Potable Water

Collected by	Collected date/time	Received date/time
	05/25/22 17:00	06/03/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1886066	1	06/30/22 09:24	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1886267	1	06/28/22 15:52	07/06/22 12:07	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1886267	1	06/28/22 15:52	06/29/22 18:42	RGT	Mt. Juliet, TN

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 radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. 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.

Donna Eidson
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.55		0.208	0.522	07/11/2022 10:36	WG1884834
(T) Barium	*94.5*			*62.0-143*	*07/11/2022 10:36*	WG1884834
(T) Yttrium	*101*			*79.0-136*	*07/11/2022 10:36*	WG1884834

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.75		0.279	0.567	07/11/2022 10:36	WG1886267

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.202	J	0.186	0.222	06/29/2022 18:42	WG1886267
(T) Barium-133	*96.9*			*30.0-143*	*06/29/2022 18:42*	WG1886267

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.45		0.212	0.541	07/11/2022 10:36	WG1884834
(T) Barium	*87.7*			*62.0-143*	*07/11/2022 10:36*	WG1884834
(T) Yttrium	*96.0*			*79.0-136*	*07/11/2022 10:36*	WG1884834

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.79		0.338	0.609	07/11/2022 10:36	WG1886267

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.340		0.263	0.280	06/29/2022 18:42	WG1886267
(T) Barium-133	*82.9*			*30.0-143*	*06/29/2022 18:42*	WG1886267

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.11		0.239	0.642	07/06/2022 12:07	WG1886066
(T) Barium	*97.0*			*62.0-143*	*07/06/2022 12:07*	WG1886066
(T) Yttrium	*99.2*			*79.0-136*	*07/06/2022 12:07*	WG1886066

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.29		0.312	0.694	07/06/2022 12:07	WG1886267

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.183	J	0.200	0.264	06/29/2022 18:42	WG1886267
(T) Barium-133	*79.8*			*30.0-143*	*06/29/2022 18:42*	WG1886267

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.815		0.185	0.485	07/06/2022 12:07	WG1886066
(T) Barium	*94.7*			*62.0-143*	*07/06/2022 12:07*	WG1886066
(T) Yttrium	*99.7*			*79.0-136*	*07/06/2022 12:07*	WG1886066

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.902		0.215	0.506	07/06/2022 12:07	WG1886267

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0871	J	0.109	0.143	06/29/2022 18:42	WG1886267
(T) Barium-133	*88.9*			*30.0-143*	*06/29/2022 18:42*	WG1886267

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.35		0.191	0.471	07/06/2022 12:07	WG1886066
(T) Barium	*99.7*			*62.0-143*	*07/06/2022 12:07*	WG1886066
(T) Yttrium	*103*			*79.0-136*	*07/06/2022 12:07*	WG1886066

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.63		0.277	0.508	07/06/2022 12:07	WG1886267

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.277		0.200	0.191	06/29/2022 18:42	WG1886267
(T) Barium-133	*92.3*			*30.0-143*	*06/29/2022 18:42*	WG1886267

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.02		0.181	0.463	07/06/2022 12:07	WG1886066
(T) Barium	*102*			*62.0-143*	*07/06/2022 12:07*	WG1886066
(T) Yttrium	*98.4*			*79.0-136*	*07/06/2022 12:07*	WG1886066

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.27		0.286	0.527	07/06/2022 12:07	WG1886267

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.251	J	0.221	0.252	06/29/2022 18:42	WG1886267
(T) Barium-133	*77.4*			*30.0-143*	*06/29/2022 18:42*	WG1886267

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.508	J	0.224	0.616	07/06/2022 12:07	WG1886066
(T) Barium	*108*			*62.0-143*	*07/06/2022 12:07*	WG1886066
(T) Yttrium	*96.1*			*79.0-136*	*07/06/2022 12:07*	WG1886066

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.621	J	0.313	0.711	07/06/2022 12:07	WG1886267

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.113	U	0.218	0.355	06/29/2022 18:42	WG1886267
(T) Barium-133	*73.7*			*30.0-143*	*06/29/2022 18:42*	WG1886267

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.273	U	0.258	0.735	07/06/2022 12:07	WG1886066
(T) Barium	*98.0*			*62.0-143*	*07/06/2022 12:07*	WG1886066
(T) Yttrium	*98.1*			*79.0-136*	*07/06/2022 12:07*	WG1886066

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.618	J	0.349	0.770	07/06/2022 12:07	WG1886267

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.345		0.235	0.228	06/29/2022 18:42	WG1886267
(T) Barium-133	*85.4*			*30.0-143*	*06/29/2022 18:42*	WG1886267

Method Blank (MB)

(MB) R3813855-1 07/08/22 13:19

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	0.210	U	0.117	0.333
(T) Barium	*112*		*112*	
(T) Yttrium	*102*		*102*	

L1506370-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1506370-06 07/11/22 10:36 • (DUP) R3813855-5 07/08/22 13:19

Analyte	Original Result Bq/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.0161	0.00830	0.0236	0.792	0.326	0.0236	1	192	2.38	J	20	3
(T) Barium	*87.8*			*102*	*102*							
(T) Yttrium	*100*			*93.3*	*93.3*							

Laboratory Control Sample (LCS)

(LCS) R3813855-2 07/08/22 13:19

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.34	86.8	80.0-120	
(T) Barium			*113*		
(T) Yttrium			*101*		

L1501712-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1501712-01 07/11/22 10:36 • (MS) R3813855-3 07/08/22 13:19 • (MSD) R3813855-4 07/08/22 13:19

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.0423	10.2	10.6	102	106	1	70.0-130			4.13		20
(T) Barium		*100*			*103*	*103*							
(T) Yttrium		*89.8*			*105*	*97.6*							

QUALITY CONTROL SUMMARY

L1500875-03,04,05,06,07,08

Method Blank (MB)

(MB) R3812201-1 07/06/22 12:07

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	0.496		0.148	0.407
(T) Barium	*103*		*103*	
(T) Yttrium	*99.7*		*99.7*	

L1500875-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1500875-07 07/06/22 12:07 • (DUP) R3812201-5 07/06/22 12:07

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.508	0.224	0.616	0.435	0.328	0.616	1	15.6	0.185	U	20	3
(T) Barium	*108*			*107*	*107*							
(T) Yttrium	*96.1*			*94.4*	*94.4*							

Laboratory Control Sample (LCS)

(LCS) R3812201-2 07/06/22 12:07

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.91	98.2	80.0-120	
(T) Barium			*110*		
(T) Yttrium			*101*		

L1500875-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1500875-06 07/06/22 12:07 • (MS) R3812201-3 07/06/22 12:07 • (MSD) R3812201-4 07/06/22 12:07

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.02	10.4	8.63	93.7	76.2	1	70.0-130			18.5		20
(T) Barium		*102*			*96.2*	*105*							
(T) Yttrium		*98.4*			*97.1*	*99.9*							

Method Blank (MB)

(MB) R3811518-1 06/29/22 18:42

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	0.00334	U	0.0311	0.0632
(T) Barium-133	*94.9*		*94.9*	

L1500490-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1500490-01 06/29/22 18:42 • (DUP) R3811518-5 06/29/22 18:42

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	Bq/l	+ / -	Bq/l	Bq/l	+ / -	Bq/l		%			%	
Radium-226	0.00312	0.00498	0.00775	0.00321	0.00447	0.00775	1	2.90	0.0137	J	20	3
(T) Barium-133	*108*			*113*	*113*							

Laboratory Control Sample (LCS)

(LCS) R3811518-2 06/29/22 18:42

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.02	5.19	103	80.0-120	
(T) Barium-133			*86.5*		

L1500875-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1500875-08 06/29/22 18:42 • (MS) R3811518-3 06/29/22 18:42 • (MSD) R3811518-4 06/29/22 18:42

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	0.345	21.7	22.3	107	110	1	75.0-125			2.95		20
(T) Barium-133		*85.4*			*88.6*	*86.1*							

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

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

DHL Analytical, Inc.
2300 Double Creek Drive
Round Rock, TX 78664
TEL: *(512) 388-8222* FAX:

CHAIN-OF-CUSTODY RECORD

Work Order: 2205310

Subcontractor:

Pace Analytical
12065 Lebanon Rd
Mt. Juliet, TN 37122

TEL: (615) 773-5923
FAX:
Acct #: DHLRRTX

L500875

27-May-22

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests					
					Ra-228 E904.0	Ra-226 M7500 Ra B M				
H-28	Aqueous	01C	05/25/22 11:20 AM	1LHDPEHNO3		1				-01
H-28	Aqueous	01D	05/25/22 11:20 AM	1LHDPEHNO3	1					
H-29	Aqueous	02C	05/25/22 12:15 PM	1LHDPEHNO3		1				-02
H-29	Aqueous	02D	05/25/22 12:15 PM	1LHDPEHNO3	1					
H-31	Aqueous	03C	05/25/22 01:10 PM	1LHDPEHNO3		1				-03
H-31	Aqueous	03D	05/25/22 01:10 PM	1LHDPEHNO3	1					
H-32	Aqueous	04C	05/25/22 02:00 PM	1LHDPEHNO3		1				-04
H-32	Aqueous	04D	05/25/22 02:00 PM	1LHDPEHNO3	1					
H-33	Aqueous	05C	05/25/22 02:55 PM	1LHDPEHNO3		1				-05
H-33	Aqueous	05D	05/25/22 02:55 PM	1LHDPEHNO3	1					
DUP-1	Aqueous	06C	05/25/22 02:55 PM	1LHDPEHNO3		1				-06
DUP-1	Aqueous	06D	05/25/22 02:55 PM	1LHDPEHNO3	1					
H-26	Aqueous	07C	05/25/22 04:05 PM	1LHDPEHNO3		1				-07
H-26	Aqueous	07D	05/25/22 04:05 PM	1LHDPEHNO3	1					
H-27	Aqueous	08C	05/25/22 05:00 PM	1LHDPEHNO3		1				-08
H-27	Aqueous	08D	05/25/22 05:00 PM	1LHDPEHNO3	1					

General Comments:

Please analyze these samples with Normal Turnaround Time.
Report Ra-226, Ra-228 & Combined per Specs.
Quality Control Package Needed: Standard - NELAC Rad Test compliant
Email to cac@dhlanalytical.com & dupont@dhlanalytical.com

Sample Receipt Checklist

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N

If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

	Date/Time		Date/Time
Relinquished by:		Received by:	6/3/22 945
Relinquished by:		Received by:	

Amb

November 16, 2022

Will Vienne
WSP-Golder
1601 S. Mopac Expy, Suite 325B
Austin, Texas 78746
TEL: (512) 671-3434
FAX

Order No.: 2209187

RE: MLSES Ash Ponds CCR

Dear Will Vienne:

DHL Analytical, Inc. received 8 sample(s) on 9/23/2022 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAP except where noted in the Case Narrative. All non-NELAP methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-22-28

Table of Contents

DHL ANALYTICAL
2300 Double Creek Dr. Round Rock, TX 78664
Phone 512.388.8222
Web: **www.dhlanalytical.com**
Email: **login@dhlanalytical.com**

CHAIN-OF-CUSTODY

CLIENT: GOLDER
ADDRESS: ROUND ROCK, TX
PHONE: EMAIL:
DATA REPORTED TO: WILL VIENNE
ADDITIONAL REPORT COPIES TO:

PO#: 31404097.002
PROJECT LOCATION OR NAME: MLSES ASH PONDS CCR
CLIENT PROJECT # 31404097.002

LABORATORY USE ONLY
DHL WORKORDER #: 2209187

COLLECTOR: JOHN BRAYTON

Authorize 5% surcharge for TRRP report? ☐ Yes ☐ No

W=WATER L=LIQUID S=SOIL SO=SOLID SE=SEDIMENT P=PAINT SL=SLUDGE

Field Sample I.D.	DHL Lab #	Collection Date	Collection Time	Matrix	Container Type	# of Containers	PRESERVATION: HCL	HNO3	H2SO4	NaOH ☐ Zn Acetate ☐	ICE ☒ UNPRESERVED ☐	ANALYSES: BTEX ☐ MTBE ☐ [METHOD 8260]	TPH 1005 ☐ TPH 1006 ☐ HOLD 1006 ☐	GRO 8015 ☐ DRO 8015 ☐	VOC 8260 ☐ VOC 624.1 ☐	SVOC 8270 ☐ SVOC 625.1 ☐	PAH 8270 ☐ HOLD PAH ☐	PEST 8270 ☐ 625.1 ☐ O-P PEST 8270 ☐	PCB 8082 ☐ 608.3 ☐ PCB 8270 ☐ 625.1 ☐	HERB 8321 ☐ T PHOS ☐ AMMONIA ☐	METALS 6020 ☐ 200.8 ☐ DISS. METALS ☐	RCRA 8 ☐ TX11 ☐	pH ☐ HEX CHROM ☐ ALKALINITY ☐ COD ☐	ANIONS 300 ☐ 9056 ☐	TCLP-SVOC ☐ VOC ☐ PEST ☐ HERB ☐	TCLP-METALS ☐ RCRA 8 ☐ TX-11 ☐ Pb ☐	RCI ☐ IGN ☐ DGAS ☐ OIL&GREASE ☐	TDS ☐ TSS ☐ % MOIST ☐ CYANIDE ☐	APPENDIX III	APPENDIX IV per Will Vienne @ 9/23/22	FIELD NOTES
H-28	01	9-20-22	1520	W	P	2		X			X																		X	X	
H-29	02	9-20-22	1615	W	P	2		X			X																		X	X	
H-31	03	9-20-22	1710	W	P	2		X			X																		X	X	
H-32	04	9-20-22	1800	W	P	2		X			X																		X	X	
DUP-1	05	9-20-22	1800	W	P	2		X			X																		X	X	
H-27	06	9-21-22	0805	W	P	2		X			X																		X	X	
H-33	07	9-21-22	0900	W	P	2		X			X																		X	X	
H-26	08	9-21-22	0955	W	P	2		X			X																		X	X	

Relinquished By: (Sign) — DATE/TIME: 9-22-22 1830 — Received by: Fedex
Relinquished By: (Sign) Fedex — DATE/TIME: 9-23-22 0828 — Received by:
Relinquished By: (Sign) — DATE/TIME — Received by:

TURN AROUND TIME (CALL FIRST FOR RUSH)
RUSH-1 DAY☐ RUSH-2 DAY☐ RUSH-3 DAY☐
NORMAL ☒ OTHER ☐
DUE DATE _____ ☐

LABORATORY USE ONLY
RECEIVING TEMP (°C): 0.8°C THERM #: 78
CUSTODY SEALS: ☐ BROKEN ☑ INTACT ☐ NOT USED
CARRIER: ☐ LSO ☑ FEDEX ☐ UPS ☐ COURIER ☐ OTHER ☐ HAND DELIVERED

☐ **DHL DISPOSAL @ 5.00 each** ☐ **Return**

DHL COC REV 3 | MAR 2021

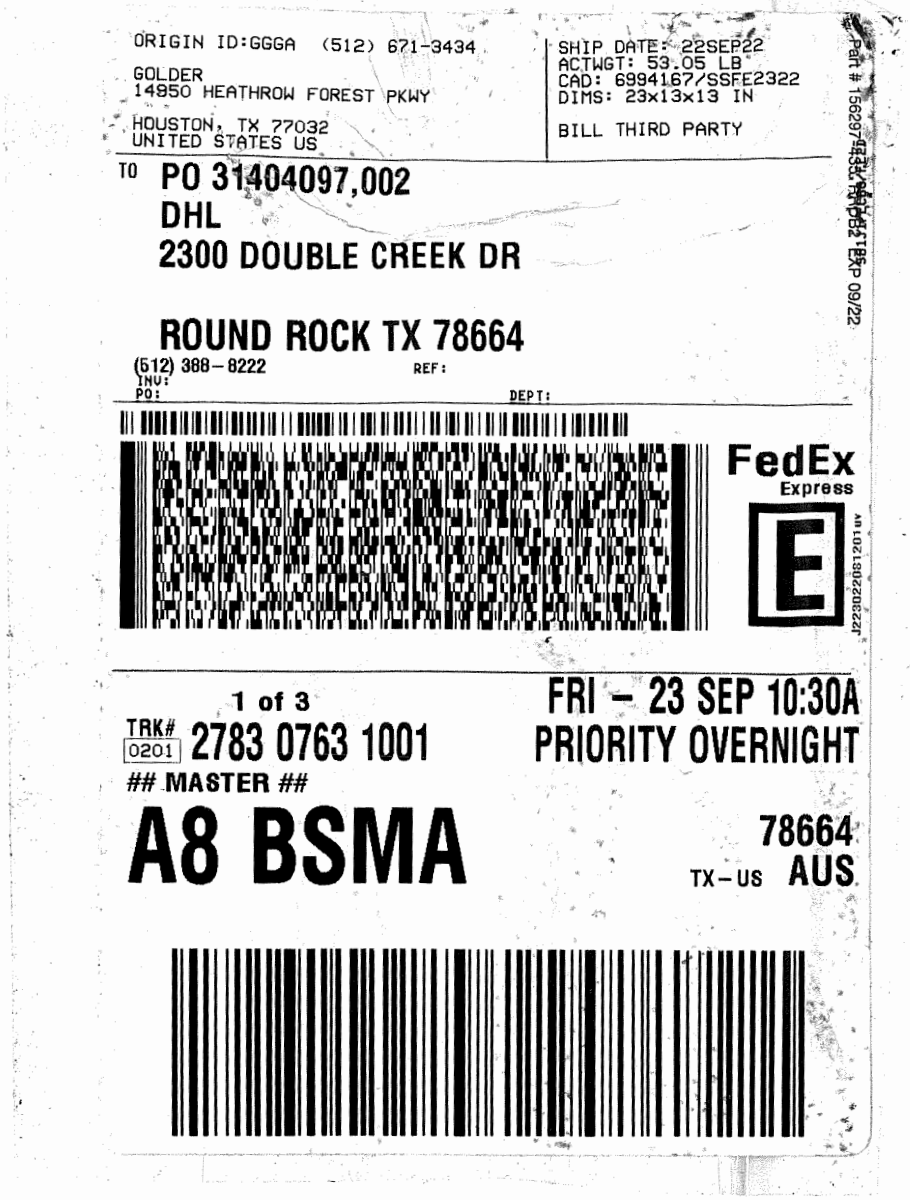
Eric Lau

From: John DuPont
Sent: Tuesday, May 28, 2019 11:35 AM
To: Eric Lau
Subject: FW: CCR Analysis

Appendix III Parameters:
Metals (Ca and B)
Anions (Cl, F, and SO4)
TDS

Appendix IV Parameters:

Metals (As, Ba, Be, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se, and Tl)
Ra-226
Ra-228



ORIGIN ID:GGGA (512) 671-3434
GOLDER
14950 HEATHROW FOREST PKWY
HOUSTON, TX 77032
UNITED STATES US

SHIP DATE: 22SEP22
ACTWGT: 53.05 LB
CAD: 6994167/SSFE2322
DIMS: 23x13x13 IN
BILL THIRD PARTY

TO PO 31404097,002
DHL
2300 DOUBLE CREEK DR

ROUND ROCK TX 78664
(512) 388-8222 REF:
INV:
PO: DEPT:

FedEx Express

1 of 3
TRK# 0201 2783 0763 1001
MASTER

FRI - 23 SEP 10:30A
PRIORITY OVERNIGHT

A8 BSMA

78664
TX-US AUS

Part # 156297-[illegible] EXP 09/22

CUSTODY SEAL

DATE 9-22-22

SIGNATURE John Bray

DHL ANALYTICAL

CUSTODY SEAL

DATE 9.22.22

SIGNATURE

DHL ANALYTICAL

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name WSP-Golder | Date Received: 9/23/2022

Work Order Number 2209187 | Received by: KAO

Checklist completed by: [signature] Signature | 9/23/2022 Date | Reviewed by SN Initials | 9/23/2022 Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ✔	No	Not Present
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ✔	No	
Chain of custody signed when relinquished and received?	Yes ✔	No	
Chain of custody agrees with sample labels?	Yes ✔	No	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ✔	No	
All samples received within holding time?	Yes ✔	No	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	0.8 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑ NA ☐
Water - pH<2 acceptable upon receipt?	Yes ✔	No ☐	NA ☐ LOT # 13171
	Adjusted? no		Checked by EL
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes	No	NA ✔ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted: Date contacted: Person contacted

Contacted by: Regarding:

Comments:

Corrective Action:

Laboratory Name: DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: MLSES Ash Ponds CCR	**LRC Date:** 11/16/22
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2209187
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	**1)** Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				**R1-01**
		2) Were all departures from standard conditions described in an exception report?			X		
R2	OI	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample detection limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			X		
		7) Were % moisture (or solids) reported for all soil and sediment samples?			X		
		8) Were bulk soils/solids samples for volatile analysis extracted with methanol per EPA Method 5035?			X		
		9) If required for the project, TICs reported?			X		
R4	O	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			X		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < MDL?	X				
		5) For analyte(s) detected in a blank sample, was the concentration, unadjusted for sample specific factors, in all associated field samples, **greater** than 10 times the concentration in the blank sample?			X		
R6	OI	**Laboratory Control Samples (LCS):**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			**R7-03**
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method Quantitation Limits (MQLs):**					
		1) Are the MQLs for each method analyte included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Was applicable and available technology used to lower the SDL to minimize the matrix interference affects on the sample results?	X				
		3) Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Name: DHL Analytical, Inc.

Laboratory Review Checklist (continued): Supporting Data

Project Name: MLSES Ash Ponds CCR	**LRC Date:** 11/16/22
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2209187
Prep Batch Number(s): See Prep Dates Report	**Run Batch:** See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**Mass Spectral Tuning:**					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) Were ion abundance data within the method-required QC limits?	X				
S4	O	**Internal Standards (IS):**					
		1) Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	**Raw Data (NELAC Section 5.5.10)**					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively Identified Compounds (TICs):**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) Results:**					
		1) Were percent recoveries within method QC limits?	X				
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	**Method Detection Limit (MDL) Studies**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency Test Reports:**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		1) Was DOC conducted consistent with NELAC Chapter 5 – Appendix C?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/Validation Documentation for Methods** (NELAC Chapter 5)					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory Standard Operating Procedures (SOPs):**					
		1) Are laboratory SOPs current and on file for each method performed?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ 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.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
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 Data Package Signature Page – RG-366/TRRP-13

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

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.

The Exception Report for each "No" or "Not Reviewed (NR)" item in the Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory is not accredited under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is 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 that all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information or data affecting the quality of the data has been knowingly withheld.

This laboratory was last inspected by TCEQ on February 23-26 2021. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Name: John DuPont
Official Title: General Manager

Signature

11/16/22
Date

Name: Dr. Derhsing Luu
Official Title: Technical Director

DHL Analytical, Inc. **Date:** *16-Nov-22*

CLIENT: WSP-Golder
Project: MLSES Ash Ponds CCR
Lab Order: 2209187

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Method SW6020B - Metals Analysis
Method SW7470A - Mercury Analysis
Method E300 - Anions Analysis
Method M2540C - TDS Analysis
Sub-contract - Radium-228 and Radium-226 analyses by methods E904/9320 and SM 7500 Ra B M. Analyzed at Pace Analytical.

Exception Report R1-01

The samples were received and log-in performed on 9/23/22. A total of 8 samples were received. The samples arrived in good condition and were properly packaged.

Exception Report R7-03

For Metals analysis performed on 9/27/22 the matrix spike and matrix spike duplicate recoveries were above control limits for Boron. These are flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate was not from this work order. The LCS was within control limits for this analyte. No further corrective actions were taken.

For Anions analysis performed on 9/27/22 and 9/30/22 (batches 107149 & 107208) the matrix spikes and matrix spike duplicate recoveries (2209215-03 MS/MSD, 2209187-06 MS & 2209206-01 MS/MSD) were out of control limits for up to three analytes. This was due to matrix effect. These are flagged accordingly. The sample selected for the matrix spike and matrix spike duplicate (2209215-03 MS/MSD) was not from this work order. The sample selected for the matrix spike and matrix spike duplicate (2209206-01 MS/MSD) was not from this work order. The sample selected for the matrix spike and matrix spike duplicate (2209187-06 MS) was from this work order. The LCSs were within control limits for these analyte(s). No further corrective actions were taken.

DHL Analytical, Inc.

Date: *16-Nov-22*

CLIENT: WSP-Golder
Project: MLSES Ash Ponds CCR
Lab Order: 2209187

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2209187-01	H-28		09/20/22 03:20 PM	9/23/2022
2209187-02	H-29		09/20/22 04:15 PM	9/23/2022
2209187-03	H-31		09/20/22 05:10 PM	9/23/2022
2209187-04	H-32		09/20/22 06:00 PM	9/23/2022
2209187-05	DUP-1		09/20/22 06:00 PM	9/23/2022
2209187-06	H-27		09/21/22 08:05 AM	9/23/2022
2209187-07	H-33		09/21/22 09:00 AM	9/23/2022
2209187-08	H-26		09/21/22 09:55 AM	9/23/2022

Lab Order: 2209187
Client: WSP-Golder
Project: MLSES Ash Ponds CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2209187-01A	H-28	09/20/22 03:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-28	09/20/22 03:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-28	09/20/22 03:20 PM	Aqueous	SW7470A	Mercury Aq Prep	09/26/22 08:39 AM	107126
2209187-01B	H-28	09/20/22 03:20 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-28	09/20/22 03:20 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-28	09/20/22 03:20 PM	Aqueous	M2540C	TDS Preparation	09/23/22 11:28 AM	107119
2209187-02A	H-29	09/20/22 04:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-29	09/20/22 04:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-29	09/20/22 04:15 PM	Aqueous	SW7470A	Mercury Aq Prep	09/26/22 08:39 AM	107126
2209187-02B	H-29	09/20/22 04:15 PM	Aqueous	E300	Anion Preparation	09/30/22 09:32 AM	107208
	H-29	09/20/22 04:15 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-29	09/20/22 04:15 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-29	09/20/22 04:15 PM	Aqueous	M2540C	TDS Preparation	09/23/22 11:28 AM	107119
2209187-03A	H-31	09/20/22 05:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-31	09/20/22 05:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-31	09/20/22 05:10 PM	Aqueous	SW7470A	Mercury Aq Prep	09/26/22 08:39 AM	107126
2209187-03B	H-31	09/20/22 05:10 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-31	09/20/22 05:10 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-31	09/20/22 05:10 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-31	09/20/22 05:10 PM	Aqueous	M2540C	TDS Preparation	09/23/22 11:28 AM	107119
2209187-04A	H-32	09/20/22 06:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-32	09/20/22 06:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-32	09/20/22 06:00 PM	Aqueous	SW7470A	Mercury Aq Prep	09/26/22 08:39 AM	107126
2209187-04B	H-32	09/20/22 06:00 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-32	09/20/22 06:00 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-32	09/20/22 06:00 PM	Aqueous	M2540C	TDS Preparation	09/23/22 11:28 AM	107119
2209187-05A	DUP-1	09/20/22 06:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	DUP-1	09/20/22 06:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125

Lab Order: 2209187
Client: WSP-Golder
Project: MLSES Ash Ponds CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2209187-05A	DUP-1	09/20/22 06:00 PM	Aqueous	SW7470A	Mercury Aq Prep	09/26/22 08:39 AM	107126
2209187-05B	DUP-1	09/20/22 06:00 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	DUP-1	09/20/22 06:00 PM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	DUP-1	09/20/22 06:00 PM	Aqueous	M2540C	TDS Preparation	09/23/22 11:28 AM	107119
2209187-06A	H-27	09/21/22 08:05 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-27	09/21/22 08:05 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-27	09/21/22 08:05 AM	Aqueous	SW7470A	Mercury Aq Prep	09/26/22 08:39 AM	107126
2209187-06B	H-27	09/21/22 08:05 AM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-27	09/21/22 08:05 AM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-27	09/21/22 08:05 AM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-27	09/21/22 08:05 AM	Aqueous	M2540C	TDS Preparation	09/26/22 10:53 AM	107137
2209187-07A	H-33	09/21/22 09:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-33	09/21/22 09:00 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-33	09/21/22 09:00 AM	Aqueous	SW7470A	Mercury Aq Prep	09/26/22 08:39 AM	107126
2209187-07B	H-33	09/21/22 09:00 AM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-33	09/21/22 09:00 AM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-33	09/21/22 09:00 AM	Aqueous	M2540C	TDS Preparation	09/26/22 10:53 AM	107137
2209187-08A	H-26	09/21/22 09:55 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-26	09/21/22 09:55 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	09/26/22 08:03 AM	107125
	H-26	09/21/22 09:55 AM	Aqueous	SW7470A	Mercury Aq Prep	09/26/22 08:39 AM	107126
2209187-08B	H-26	09/21/22 09:55 AM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-26	09/21/22 09:55 AM	Aqueous	E300	Anion Preparation	09/27/22 09:48 AM	107149
	H-26	09/21/22 09:55 AM	Aqueous	M2540C	TDS Preparation	09/26/22 10:53 AM	107137

Lab Order: 2209187
Client: WSP-Golder
Project: MLSES Ash Ponds CCR

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2209187-01A	H-28	Aqueous	SW7470A	Mercury Total: Aqueous	107126	1	09/29/22 12:40 PM	CETAC2_HG_220929B
	H-28	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	20	09/27/22 02:26 PM	ICP-MS4_220927A
	H-28	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 01:25 PM	ICP-MS5_220927B
2209187-01B	H-28	Aqueous	E300	Anions by IC method - Water	107149	10	09/27/22 10:16 PM	IC2_220927B
	H-28	Aqueous	E300	Anions by IC method - Water	107149	1	09/28/22 03:22 AM	IC2_220927B
	H-28	Aqueous	M2540C	Total Dissolved Solids	107119	1	09/26/22 04:30 PM	WC_220923A
2209187-02A	H-29	Aqueous	SW7470A	Mercury Total: Aqueous	107126	1	09/29/22 12:43 PM	CETAC2_HG_220929B
	H-29	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	50	09/27/22 02:28 PM	ICP-MS4_220927A
	H-29	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 01:27 PM	ICP-MS5_220927B
2209187-02B	H-29	Aqueous	E300	Anions by IC method - Water	107208	100	09/30/22 02:31 PM	IC2_220930A
	H-29	Aqueous	E300	Anions by IC method - Water	107149	10	09/27/22 10:33 PM	IC2_220927B
	H-29	Aqueous	E300	Anions by IC method - Water	107149	1	09/28/22 04:47 AM	IC2_220927B
	H-29	Aqueous	M2540C	Total Dissolved Solids	107119	1	09/26/22 04:30 PM	WC_220923A
2209187-03A	H-31	Aqueous	SW7470A	Mercury Total: Aqueous	107126	1	09/29/22 12:45 PM	CETAC2_HG_220929B
	H-31	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	50	09/27/22 02:30 PM	ICP-MS4_220927A
	H-31	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 01:30 PM	ICP-MS5_220927B
2209187-03B	H-31	Aqueous	E300	Anions by IC method - Water	107149	100	09/27/22 06:18 PM	IC2_220927B
	H-31	Aqueous	E300	Anions by IC method - Water	107149	10	09/27/22 10:50 PM	IC2_220927B
	H-31	Aqueous	E300	Anions by IC method - Water	107149	1	09/28/22 05:04 AM	IC2_220927B
	H-31	Aqueous	M2540C	Total Dissolved Solids	107119	1	09/26/22 04:30 PM	WC_220923A
2209187-04A	H-32	Aqueous	SW7470A	Mercury Total: Aqueous	107126	1	09/29/22 12:47 PM	CETAC2_HG_220929B
	H-32	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	10	09/27/22 02:32 PM	ICP-MS4_220927A
	H-32	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 01:32 PM	ICP-MS5_220927B
2209187-04B	H-32	Aqueous	E300	Anions by IC method - Water	107149	1	09/28/22 05:21 AM	IC2_220927B
	H-32	Aqueous	E300	Anions by IC method - Water	107149	10	09/27/22 11:07 PM	IC2_220927B
	H-32	Aqueous	M2540C	Total Dissolved Solids	107119	1	09/26/22 04:30 PM	WC_220923A

Lab Order: 2209187
Client: WSP-Golder
Project: MLSES Ash Ponds CCR

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2209187-05A	DUP-1	Aqueous	SW7470A	Mercury Total: Aqueous	107126	1	09/29/22 12:49 PM	CETAC2_HG_220929B
	DUP-1	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	10	09/27/22 02:34 PM	ICP-MS4_220927A
	DUP-1	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 01:35 PM	ICP-MS5_220927B
2209187-05B	DUP-1	Aqueous	E300	Anions by IC method - Water	107149	10	09/27/22 11:24 PM	IC2_220927B
	DUP-1	Aqueous	E300	Anions by IC method - Water	107149	1	09/28/22 05:38 AM	IC2_220927B
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	107119	1	09/26/22 04:30 PM	WC_220923A
2209187-06A	H-27	Aqueous	SW7470A	Mercury Total: Aqueous	107126	1	09/29/22 12:53 PM	CETAC2_HG_220929B
	H-27	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 02:36 PM	ICP-MS4_220927A
	H-27	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 01:37 PM	ICP-MS5_220927B
2209187-06B	H-27	Aqueous	E300	Anions by IC method - Water	107149	1	09/28/22 05:55 AM	IC2_220927B
	H-27	Aqueous	E300	Anions by IC method - Water	107149	100	09/27/22 06:35 PM	IC2_220927B
	H-27	Aqueous	E300	Anions by IC method - Water	107149	10	09/28/22 12:49 AM	IC2_220927B
	H-27	Aqueous	M2540C	Total Dissolved Solids	107137	1	09/26/22 04:00 PM	WC_220926A
2209187-07A	H-33	Aqueous	SW7470A	Mercury Total: Aqueous	107126	1	09/29/22 12:55 PM	CETAC2_HG_220929B
	H-33	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 02:38 PM	ICP-MS4_220927A
	H-33	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 01:40 PM	ICP-MS5_220927B
2209187-07B	H-33	Aqueous	E300	Anions by IC method - Water	107149	10	09/28/22 01:06 AM	IC2_220927B
	H-33	Aqueous	E300	Anions by IC method - Water	107149	1	09/28/22 06:12 AM	IC2_220927B
	H-33	Aqueous	M2540C	Total Dissolved Solids	107137	1	09/26/22 04:00 PM	WC_220926A
2209187-08A	H-26	Aqueous	SW7470A	Mercury Total: Aqueous	107126	1	09/29/22 12:57 PM	CETAC2_HG_220929B
	H-26	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	2	09/27/22 02:40 PM	ICP-MS4_220927A
	H-26	Aqueous	SW6020B	Trace Metals: ICP-MS - Water	107125	1	09/27/22 01:42 PM	ICP-MS5_220927B
2209187-08B	H-26	Aqueous	E300	Anions by IC method - Water	107149	10	09/28/22 01:23 AM	IC2_220927B
	H-26	Aqueous	E300	Anions by IC method - Water	107149	1	09/28/22 06:29 AM	IC2_220927B
	H-26	Aqueous	M2540C	Total Dissolved Solids	107137	1	09/26/22 04:00 PM	WC_220926A

DHL Analytical, Inc.

Date: *16-Nov-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-28
Project:	MLSES Ash Ponds CCR	**Lab ID:**	2209187-01
Project No:	31404097.002	**Collection Date:**	09/20/22 03:20 PM
Lab Order:	2209187	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	09/27/22 01:25 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:25 PM
Barium	0.0148	0.00300	0.0100		mg/L	1	09/27/22 01:25 PM
Beryllium	0.00705	0.000300	0.00100		mg/L	1	09/27/22 01:25 PM
Boron	4.98	0.200	0.600		mg/L	20	09/27/22 02:26 PM
Cadmium	0.000692	0.000300	0.00100	J	mg/L	1	09/27/22 01:25 PM
Calcium	67.0	2.00	6.00		mg/L	20	09/27/22 02:26 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:25 PM
Cobalt	0.164	0.00300	0.00500		mg/L	1	09/27/22 01:25 PM
Lead	0.00145	0.000300	0.00100		mg/L	1	09/27/22 01:25 PM
Lithium	0.197	0.00500	0.0100		mg/L	1	09/27/22 01:25 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:25 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:25 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	09/27/22 01:25 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	09/29/22 12:40 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **RA**
Chloride	87.6	3.00	10.0		mg/L	10	09/27/22 10:16 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	09/28/22 03:22 AM
Sulfate	622	10.0	30.0		mg/L	10	09/27/22 10:16 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1190	50.0	50.0		mg/L	1	09/26/22 04:30 PM

Qualifiers:

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *16-Nov-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-29
Project:	MLSES Ash Ponds CCR	**Lab ID:**	2209187-02
Project No:	31404097.002	**Collection Date:**	09/20/22 04:15 PM
Lab Order:	2209187	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	09/27/22 01:27 PM
Arsenic	0.00510	0.00200	0.00500		mg/L	1	09/27/22 01:27 PM
Barium	0.0142	0.00300	0.0100		mg/L	1	09/27/22 01:27 PM
Beryllium	0.0165	0.000300	0.00100		mg/L	1	09/27/22 01:27 PM
Boron	10.3	0.500	1.50		mg/L	50	09/27/22 02:28 PM
Cadmium	0.000874	0.000300	0.00100	J	mg/L	1	09/27/22 01:27 PM
Calcium	136	5.00	15.0		mg/L	50	09/27/22 02:28 PM
Chromium	0.00201	0.00200	0.00500	J	mg/L	1	09/27/22 01:27 PM
Cobalt	0.271	0.00300	0.00500		mg/L	1	09/27/22 01:27 PM
Lead	0.00250	0.000300	0.00100		mg/L	1	09/27/22 01:27 PM
Lithium	0.195	0.00500	0.0100		mg/L	1	09/27/22 01:27 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:27 PM
Selenium	0.00558	0.00200	0.00500		mg/L	1	09/27/22 01:27 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	09/27/22 01:27 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	09/29/22 12:43 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **RA**
Chloride	156	3.00	10.0		mg/L	10	09/27/22 10:33 PM
Fluoride	0.819	0.100	0.400		mg/L	1	09/28/22 04:47 AM
Sulfate	1550	100	300		mg/L	100	09/30/22 02:31 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	2640	50.0	50.0		mg/L	1	09/26/22 04:30 PM

Qualifiers:

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B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *16-Nov-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-31
Project:	MLSES Ash Ponds CCR	**Lab ID:**	2209187-03
Project No:	31404097.002	**Collection Date:**	09/20/22 05:10 PM
Lab Order:	2209187	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	09/27/22 01:30 PM
Arsenic	0.0140	0.00200	0.00500		mg/L	1	09/27/22 01:30 PM
Barium	0.0112	0.00300	0.0100		mg/L	1	09/27/22 01:30 PM
Beryllium	0.0376	0.000300	0.00100		mg/L	1	09/27/22 01:30 PM
Boron	22.8	0.500	1.50		mg/L	50	09/27/22 02:30 PM
Cadmium	0.00110	0.000300	0.00100		mg/L	1	09/27/22 01:30 PM
Calcium	287	5.00	15.0		mg/L	50	09/27/22 02:30 PM
Chromium	0.00493	0.00200	0.00500	J	mg/L	1	09/27/22 01:30 PM
Cobalt	0.516	0.00300	0.00500		mg/L	1	09/27/22 01:30 PM
Lead	0.00370	0.000300	0.00100		mg/L	1	09/27/22 01:30 PM
Lithium	0.204	0.00500	0.0100		mg/L	1	09/27/22 01:30 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:30 PM
Selenium	0.0163	0.00200	0.00500		mg/L	1	09/27/22 01:30 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	09/27/22 01:30 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	09/29/22 12:45 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **RA**
Chloride	239	3.00	10.0		mg/L	10	09/27/22 10:50 PM
Fluoride	1.34	0.100	0.400		mg/L	1	09/28/22 05:04 AM
Sulfate	2730	100	300		mg/L	100	09/27/22 06:18 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	4610	50.0	50.0		mg/L	1	09/26/22 04:30 PM

Qualifiers:

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DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *16-Nov-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-32
Project:	MLSES Ash Ponds CCR	**Lab ID:**	2209187-04
Project No:	31404097.002	**Collection Date:**	09/20/22 06:00 PM
Lab Order:	2209187	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	09/27/22 01:32 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:32 PM
Barium	0.0178	0.00300	0.0100		mg/L	1	09/27/22 01:32 PM
Beryllium	0.00642	0.000300	0.00100		mg/L	1	09/27/22 01:32 PM
Boron	1.91	0.100	0.300		mg/L	10	09/27/22 02:32 PM
Cadmium	0.000375	0.000300	0.00100	J	mg/L	1	09/27/22 01:32 PM
Calcium	44.8	1.00	3.00		mg/L	10	09/27/22 02:32 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:32 PM
Cobalt	0.179	0.00300	0.00500		mg/L	1	09/27/22 01:32 PM
Lead	0.000938	0.000300	0.00100	J	mg/L	1	09/27/22 01:32 PM
Lithium	0.0943	0.00500	0.0100		mg/L	1	09/27/22 01:32 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:32 PM
Selenium	0.00230	0.00200	0.00500	J	mg/L	1	09/27/22 01:32 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	09/27/22 01:32 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	09/29/22 12:47 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **RA**
Chloride	111	3.00	10.0		mg/L	10	09/27/22 11:07 PM
Fluoride	0.670	0.100	0.400		mg/L	1	09/28/22 05:21 AM
Sulfate	327	10.0	30.0		mg/L	10	09/27/22 11:07 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	766	10.0	10.0		mg/L	1	09/26/22 04:30 PM

Qualifiers:

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J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
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S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *16-Nov-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	DUP-1
Project:	MLSES Ash Ponds CCR	**Lab ID:**	2209187-05
Project No:	31404097.002	**Collection Date:**	09/20/22 06:00 PM
Lab Order:	2209187	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	09/27/22 01:35 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:35 PM
Barium	0.0170	0.00300	0.0100		mg/L	1	09/27/22 01:35 PM
Beryllium	0.00615	0.000300	0.00100		mg/L	1	09/27/22 01:35 PM
Boron	1.90	0.100	0.300		mg/L	10	09/27/22 02:34 PM
Cadmium	0.000362	0.000300	0.00100	J	mg/L	1	09/27/22 01:35 PM
Calcium	46.3	1.00	3.00		mg/L	10	09/27/22 02:34 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:35 PM
Cobalt	0.176	0.00300	0.00500		mg/L	1	09/27/22 01:35 PM
Lead	0.000711	0.000300	0.00100	J	mg/L	1	09/27/22 01:35 PM
Lithium	0.0949	0.00500	0.0100		mg/L	1	09/27/22 01:35 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:35 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:35 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	09/27/22 01:35 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	09/29/22 12:49 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **RA**
Chloride	112	3.00	10.0		mg/L	10	09/27/22 11:24 PM
Fluoride	0.638	0.100	0.400		mg/L	1	09/28/22 05:38 AM
Sulfate	333	10.0	30.0		mg/L	10	09/27/22 11:24 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	768	10.0	10.0		mg/L	1	09/26/22 04:30 PM

Qualifiers:

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *16-Nov-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-27
Project:	MLSES Ash Ponds CCR	**Lab ID:**	2209187-06
Project No:	31404097.002	**Collection Date:**	09/21/22 08:05 AM
Lab Order:	2209187	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	09/27/22 01:37 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:37 PM
Barium	0.0794	0.00300	0.0100		mg/L	1	09/27/22 01:37 PM
Beryllium	0.000786	0.000300	0.00100	J	mg/L	1	09/27/22 01:37 PM
Boron	0.0632	0.0100	0.0300		mg/L	1	09/27/22 02:36 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	09/27/22 01:37 PM
Calcium	21.5	0.100	0.300		mg/L	1	09/27/22 01:37 PM
Chromium	0.00287	0.00200	0.00500	J	mg/L	1	09/27/22 01:37 PM
Cobalt	0.0386	0.00300	0.00500		mg/L	1	09/27/22 01:37 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	09/27/22 01:37 PM
Lithium	0.152	0.00500	0.0100		mg/L	1	09/27/22 01:37 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:37 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:37 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	09/27/22 01:37 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	09/29/22 12:53 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **RA**
Chloride	97.6	3.00	10.0		mg/L	10	09/28/22 12:49 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	09/28/22 05:55 AM
Sulfate	108	1.00	3.00		mg/L	1	09/28/22 05:55 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	421	10.0	10.0		mg/L	1	09/26/22 04:00 PM

Qualifiers:

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *16-Nov-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-33
Project:	MLSES Ash Ponds CCR	**Lab ID:**	2209187-07
Project No:	31404097.002	**Collection Date:**	09/21/22 09:00 AM
Lab Order:	2209187	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	09/27/22 01:40 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:40 PM
Barium	0.0789	0.00300	0.0100		mg/L	1	09/27/22 01:40 PM
Beryllium	0.000812	0.000300	0.00100	J	mg/L	1	09/27/22 01:40 PM
Boron	0.0580	0.0100	0.0300		mg/L	1	09/27/22 02:38 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	09/27/22 01:40 PM
Calcium	21.4	0.100	0.300		mg/L	1	09/27/22 01:40 PM
Chromium	0.00272	0.00200	0.00500	J	mg/L	1	09/27/22 01:40 PM
Cobalt	0.0389	0.00300	0.00500		mg/L	1	09/27/22 01:40 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	09/27/22 01:40 PM
Lithium	0.151	0.00500	0.0100		mg/L	1	09/27/22 01:40 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:40 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:40 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	09/27/22 01:40 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	09/29/22 12:55 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **RA**
Chloride	96.9	3.00	10.0		mg/L	10	09/28/22 01:06 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	09/28/22 06:12 AM
Sulfate	109	1.00	3.00		mg/L	1	09/28/22 06:12 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	425	10.0	10.0		mg/L	1	09/26/22 04:00 PM

Qualifiers:

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

DHL Analytical, Inc.

Date: *16-Nov-22*

CLIENT:	WSP-Golder	**Client Sample ID:**	H-26
Project:	MLSES Ash Ponds CCR	**Lab ID:**	2209187-08
Project No:	31404097.002	**Collection Date:**	09/21/22 09:55 AM
Lab Order:	2209187	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TRACE METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	09/27/22 01:42 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:42 PM
Barium	0.0587	0.00300	0.0100		mg/L	1	09/27/22 01:42 PM
Beryllium	0.00160	0.000300	0.00100		mg/L	1	09/27/22 01:42 PM
Boron	0.414	0.0200	0.0600		mg/L	2	09/27/22 02:40 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	09/27/22 01:42 PM
Calcium	12.6	0.100	0.300		mg/L	1	09/27/22 01:42 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:42 PM
Cobalt	0.0260	0.00300	0.00500		mg/L	1	09/27/22 01:42 PM
Lead	0.000507	0.000300	0.00100	J	mg/L	1	09/27/22 01:42 PM
Lithium	0.0161	0.00500	0.0100		mg/L	1	09/27/22 01:42 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	09/27/22 01:42 PM
Selenium	0.00859	0.00200	0.00500		mg/L	1	09/27/22 01:42 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	09/27/22 01:42 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	09/29/22 12:57 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **RA**
Chloride	71.9	3.00	10.0		mg/L	10	09/28/22 01:23 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	09/28/22 06:29 AM
Sulfate	52.2	1.00	3.00		mg/L	1	09/28/22 06:29 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	258	10.0	10.0		mg/L	1	09/26/22 04:00 PM

Qualifiers:

ND - Not Detected at the SDL
J - Analyte detected between SDL and RL
B - Analyte detected in the associated Method Blank
DF- Dilution Factor
N - Parameter not NELAP certified
See Final Page of Report for MQLs and MDLs
S - Spike Recovery outside control limits
C - Sample Result or QC discussed in Case Narrative
RL - Reporting Limit (MQL adjusted for moisture and sample size)
SDL - Sample Detection Limit
E - TPH pattern not Gas or Diesel Range Pattern

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_220805C

Sample ID: **DCS-106496**	Batch ID: **106496**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **DCS**	Run ID: **CETAC2_HG_220805C**	Analysis Date: **8/5/2022 3:18:57 PM**	Prep Date: **8/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000164	0.000200	0.000200	0	82.0	82	119	0	0	

Qualifiers:	B	Analyte detected in the associated Method Blank	DF	Dilution Factor	
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit	Page 1 of 20
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits	
	RL	Reporting Limit	S	Spike Recovery outside control limits	
	J	Analyte detected between SDL and RL	N	Parameter not NELAP certified	

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_220929B

The QC data in batch 107126 applies to the following samples: 2209187-01A, 2209187-02A, 2209187-03A, 2209187-04A, 2209187-05A, 2209187-06A, 2209187-07A, 2209187-08A

Sample ID: **MB-107126** Batch ID: **107126** TestNo: **SW7470A** Units: **mg/L**
SampType: **MBLK** Run ID: **CETAC2_HG_220929B** Analysis Date: **9/29/2022 11:57:41 AM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.0000800	0.000200								

Sample ID: **LCS-107126** Batch ID: **107126** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCS** Run ID: **CETAC2_HG_220929B** Analysis Date: **9/29/2022 11:59:57 AM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00194	0.000200	0.00200	0	97.0	85	115			

Sample ID: **LCSD-107126** Batch ID: **107126** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCSD** Run ID: **CETAC2_HG_220929B** Analysis Date: **9/29/2022 12:02:13 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00203	0.000200	0.00200	0	102	85	115	4.53	15	

Sample ID: **2209179-09AMS** Batch ID: **107126** TestNo: **SW7470A** Units: **mg/L**
SampType: **MS** Run ID: **CETAC2_HG_220929B** Analysis Date: **9/29/2022 12:24:51 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00196	0.000200	0.00200	0	98.0	80	120			

Sample ID: **2209179-09AMSD** Batch ID: **107126** TestNo: **SW7470A** Units: **mg/L**
SampType: **MSD** Run ID: **CETAC2_HG_220929B** Analysis Date: **9/29/2022 12:27:07 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00199	0.000200	0.00200	0	99.5	80	120	1.52	15	

Sample ID: **2209179-09ASD** Batch ID: **107126** TestNo: **SW7470A** Units: **mg/L**
SampType: **SD** Run ID: **CETAC2_HG_220929B** Analysis Date: **9/29/2022 12:29:24 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	<0.000400	0.00100	0	0				0	10	

Sample ID: **2209179-09APDS** Batch ID: **107126** TestNo: **SW7470A** Units: **mg/L**
SampType: **PDS** Run ID: **CETAC2_HG_220929B** Analysis Date: **9/29/2022 12:31:40 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00244	0.000200	0.00250	0	97.6	85	115			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_220929B

Sample ID: **ICV-220929**	Batch ID: **R123263**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **ICV**	Run ID: **CETAC2_HG_220929B**	Analysis Date: **9/29/2022 11:53:07 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00385	0.000200	0.00400	0	96.2	90	110			

Sample ID: **CCV1-220929**	Batch ID: **R123263**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_220929B**	Analysis Date: **9/29/2022 12:36:14 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00198	0.000200	0.00200	0	99.0	90	110			

Sample ID: **CCV2-220929**	Batch ID: **R123263**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_220929B**	Analysis Date: **9/29/2022 1:04:48 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00196	0.000200	0.00200	0	98.0	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_220822A

Sample ID: **DCS2-106706**	Batch ID: **106706**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS2**	Run ID: **ICP-MS4_220822A**	Analysis Date: **8/22/2022 10:55:00 AM**	Prep Date: **8/19/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.364	0.300	0.300	0	121	70	130	0	0	

Sample ID: **DCS4-106706**	Batch ID: **106706**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS4**	Run ID: **ICP-MS4_220822A**	Analysis Date: **8/22/2022 11:00:00 AM**	Prep Date: **8/19/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0267	0.0300	0.0300	0	88.9	70	130	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_220927A

The QC data in batch 107125 applies to the following samples: 2209187-01A, 2209187-02A, 2209187-03A, 2209187-04A, 2209187-05A, 2209187-06A, 2209187-07A, 2209187-08A

Sample ID: **MB-107125** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_220927A** Analysis Date: **9/27/2022 2:08:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	<0.0100	0.0300								

Sample ID: **LCS-107125** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_220927A** Analysis Date: **9/27/2022 2:10:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.195	0.0300	0.200	0	97.7	80	120			

Sample ID: **LCSD-107125** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_220927A** Analysis Date: **9/27/2022 2:12:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.205	0.0300	0.200	0	102	80	120	4.57	15	

Sample ID: **2209184-01A SD** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_220927A** Analysis Date: **9/27/2022 3:19:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	4.10	3.00	0	3.78				8.14	20	
Calcium	66.7	30.0	0	62.1				7.12	20	

Sample ID: **2209184-01A PDS** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_220927A** Analysis Date: **9/27/2022 3:33:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	7.76	0.600	4.00	3.78	99.4	75	125			
Calcium	170	6.00	100	62.1	108	75	125			

Sample ID: **2209184-01A MS** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_220927A** Analysis Date: **9/27/2022 3:35:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	4.09	0.600	0.200	3.78	155	75	125			S

Sample ID: **2209184-01A MSD** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_220927A** Analysis Date: **9/27/2022 3:37:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	4.05	0.600	0.200	3.78	134	75	125	1.05	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_220927A

Sample ID: **ICV-220927**	Batch ID: **R123228**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_220927A**	Analysis Date: **9/27/2022 11:29:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0995	0.0300	0.100	0	99.5	90	110			
Calcium	2.63	0.300	2.50	0	105	90	110			

Sample ID: **LCVL-220927**	Batch ID: **R123228**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_220927A**	Analysis Date: **9/27/2022 11:39:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0214	0.0300	0.0200	0	107	80	120			
Calcium	0.108	0.300	0.100	0	108	80	120			

Sample ID: **CCV2-220927**	Batch ID: **R123228**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_220927A**	Analysis Date: **9/27/2022 1:11:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.201	0.0300	0.200	0	101	90	110			
Calcium	5.20	0.300	5.00	0	104	90	110			

Sample ID: **CCV3-220927**	Batch ID: **R123228**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_220927A**	Analysis Date: **9/27/2022 2:48:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.193	0.0300	0.200	0	96.4	90	110			
Calcium	5.17	0.300	5.00	0	103	90	110			

Sample ID: **CCV4-220927**	Batch ID: **R123228**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_220927A**	Analysis Date: **9/27/2022 3:13:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.196	0.0300	0.200	0	98.0	90	110			
Calcium	5.18	0.300	5.00	0	104	90	110			

Sample ID: **CCV5-220927**	Batch ID: **R123228**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_220927A**	Analysis Date: **9/27/2022 3:39:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.206	0.0300	0.200	0	103	90	110			
Calcium	5.10	0.300	5.00	0	102	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220822B

Sample ID: **DCS1-106706**	Batch ID: **106706**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS**	Run ID: **ICP-MS5_220822B**	Analysis Date: **8/22/2022 11:05:00 AM**	Prep Date: **8/19/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.000971	0.00250	0.00100	0	97.1	70	130	0	0	
Beryllium	0.000548	0.00100	0.000500	0	110	70	130	0	0	
Cadmium	0.000521	0.00100	0.000500	0	104	70	130	0	0	
Lead	0.000534	0.00100	0.000500	0	107	70	130	0	0	
Thallium	0.000508	0.00150	0.000500	0	102	70	130	0	0	

Sample ID: **DCS2-106706**	Batch ID: **106706**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS2**	Run ID: **ICP-MS5_220822B**	Analysis Date: **8/22/2022 11:09:00 AM**	Prep Date: **8/19/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.345	0.300	0.300	0	115	70	130	0	0	

Sample ID: **DCS3-106706**	Batch ID: **106706**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS3**	Run ID: **ICP-MS5_220822B**	Analysis Date: **8/22/2022 11:11:00 AM**	Prep Date: **8/19/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00525	0.00500	0.00500	0	105	70	130	0	0	
Barium	0.00502	0.0100	0.00500	0	100	70	130	0	0	
Chromium	0.00517	0.00500	0.00500	0	103	70	130	0	0	
Cobalt	0.00529	0.00500	0.00500	0	106	70	130	0	0	
Lithium	0.00516	0.0100	0.00500	0	103	70	130	0	0	
Molybdenum	0.00510	0.00500	0.00500	0	102	70	130	0	0	
Selenium	0.00505	0.00500	0.00500	0	101	70	130	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220927B

The QC data in batch 107125 applies to the following samples: 2209187-01A, 2209187-02A, 2209187-03A, 2209187-04A, 2209187-05A, 2209187-06A, 2209187-07A, 2209187-08A

Sample ID: **MB-107125** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_220927B** Analysis Date: **9/27/2022 1:07:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.000800	0.00250								
Arsenic	<0.00200	0.00500								
Barium	<0.00300	0.0100								
Beryllium	<0.000300	0.00100								
Cadmium	<0.000300	0.00100								
Calcium	<0.100	0.300								
Chromium	<0.00200	0.00500								
Cobalt	<0.00300	0.00500								
Lead	<0.000300	0.00100								
Lithium	<0.00500	0.0100								
Molybdenum	<0.00200	0.00500								
Selenium	<0.00200	0.00500								
Thallium	<0.000500	0.00150								

Sample ID: **LCS-107125** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_220927B** Analysis Date: **9/27/2022 1:09:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.195	0.00250	0.200	0	97.6	80	120			
Arsenic	0.200	0.00500	0.200	0	100	80	120			
Barium	0.198	0.0100	0.200	0	99.1	80	120			
Beryllium	0.193	0.00100	0.200	0	96.3	80	120			
Cadmium	0.199	0.00100	0.200	0	99.4	80	120			
Calcium	5.04	0.300	5.00	0	101	80	120			
Chromium	0.200	0.00500	0.200	0	100	80	120			
Cobalt	0.208	0.00500	0.200	0	104	80	120			
Lead	0.195	0.00100	0.200	0	97.4	80	120			
Lithium	0.199	0.0100	0.200	0	99.3	80	120			
Molybdenum	0.194	0.00500	0.200	0	96.9	80	120			
Selenium	0.207	0.00500	0.200	0	103	80	120			
Thallium	0.206	0.00150	0.200	0	103	80	120			

Sample ID: **LCSD-107125** Batch ID: **107125** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_220927B** Analysis Date: **9/27/2022 1:12:00 PM** Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.5	80	120	1.11	15	
Arsenic	0.199	0.00500	0.200	0	99.3	80	120	0.902	15	
Barium	0.197	0.0100	0.200	0	98.3	80	120	0.726	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220927B

Sample ID: **LCSD-107125**	Batch ID: **107125**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCSD**	Run ID: **ICP-MS5_220927B**	Analysis Date: **9/27/2022 1:12:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.195	0.00100	0.200	0	97.7	80	120	1.48	15	
Cadmium	0.198	0.00100	0.200	0	98.8	80	120	0.573	15	
Calcium	4.99	0.300	5.00	0	99.8	80	120	1.08	15	
Chromium	0.201	0.00500	0.200	0	100	80	120	0.303	15	
Cobalt	0.208	0.00500	0.200	0	104	80	120	0.296	15	
Lead	0.195	0.00100	0.200	0	97.7	80	120	0.306	15	
Lithium	0.205	0.0100	0.200	0	103	80	120	3.38	15	
Molybdenum	0.194	0.00500	0.200	0	97.0	80	120	0.072	15	
Selenium	0.208	0.00500	0.200	0	104	80	120	0.348	15	
Thallium	0.207	0.00150	0.200	0	103	80	120	0.542	15	

Sample ID: **2209184-01A SD**	Batch ID: **107125**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS5_220927B**	Analysis Date: **9/27/2022 1:19:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	20	
Arsenic	<0.0100	0.0250	0	0				0	20	
Barium	0.0165	0.0500	0	0.0162				1.66	20	
Beryllium	<0.00150	0.00500	0	0				0	20	
Cadmium	<0.00150	0.00500	0	0				0	20	
Chromium	<0.0100	0.0250	0	0				0	20	
Cobalt	<0.0150	0.0250	0	0				0	20	
Lead	<0.00150	0.00500	0	0				0	20	
Lithium	0.423	0.0500	0	0.407				3.99	20	
Molybdenum	<0.0100	0.0250	0	0				0	20	
Selenium	<0.0100	0.0250	0	0				0	20	
Thallium	<0.00250	0.00750	0	0				0	20	

Sample ID: **2209184-01A PDS**	Batch ID: **107125**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_220927B**	Analysis Date: **9/27/2022 1:45:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.203	0.00250	0.200	0	101	75	125			
Arsenic	0.199	0.00500	0.200	0	99.3	75	125			
Barium	0.226	0.0100	0.200	0.0162	105	75	125			
Beryllium	0.189	0.00100	0.200	0	94.3	75	125			
Cadmium	0.201	0.00100	0.200	0	100	75	125			
Chromium	0.206	0.00500	0.200	0	103	75	125			
Cobalt	0.209	0.00500	0.200	0	104	75	125			
Lead	0.208	0.00100	0.200	0	104	75	125			
Lithium	0.568	0.0100	0.200	0.407	80.6	75	125			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220927B

Sample ID: **2209184-01A PDS**	Batch ID: **107125**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_220927B**	Analysis Date: **9/27/2022 1:45:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Molybdenum	0.206	0.00500	0.200	0	103	75	125			
Selenium	0.196	0.00500	0.200	0	98.1	75	125			
Thallium	0.217	0.00150	0.200	0	108	75	125			

Sample ID: **2209184-01A MS**	Batch ID: **107125**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS5_220927B**	Analysis Date: **9/27/2022 1:47:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.6	75	125			
Arsenic	0.198	0.00500	0.200	0	98.9	75	125			
Barium	0.217	0.0100	0.200	0.0162	100	75	125			
Beryllium	0.184	0.00100	0.200	0	92.0	75	125			
Cadmium	0.188	0.00100	0.200	0	94.2	75	125			
Calcium	68.8	0.300	5.00	64.2	92.7	75	125			
Chromium	0.188	0.00500	0.200	0	94.0	75	125			
Cobalt	0.197	0.00500	0.200	0	98.3	75	125			
Lead	0.198	0.00100	0.200	0	99.2	75	125			
Lithium	0.575	0.0100	0.200	0.407	84.2	75	125			
Molybdenum	0.199	0.00500	0.200	0	99.5	75	125			
Selenium	0.191	0.00500	0.200	0	95.7	75	125			
Thallium	0.209	0.00150	0.200	0	104	75	125			

Sample ID: **2209184-01A MSD**	Batch ID: **107125**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_220927B**	Analysis Date: **9/27/2022 1:50:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.5	75	125	0.059	15	
Arsenic	0.198	0.00500	0.200	0	99.0	75	125	0.110	15	
Barium	0.215	0.0100	0.200	0.0162	99.5	75	125	0.788	15	
Beryllium	0.184	0.00100	0.200	0	92.0	75	125	0.053	15	
Cadmium	0.186	0.00100	0.200	0	93.0	75	125	1.36	15	
Calcium	69.5	0.300	5.00	64.2	106	75	125	0.967	15	
Chromium	0.186	0.00500	0.200	0	93.1	75	125	0.979	15	
Cobalt	0.196	0.00500	0.200	0	97.8	75	125	0.424	15	
Lead	0.198	0.00100	0.200	0	99.1	75	125	0.066	15	
Lithium	0.582	0.0100	0.200	0.407	87.5	75	125	1.13	15	
Molybdenum	0.196	0.00500	0.200	0	98.2	75	125	1.33	15	
Selenium	0.191	0.00500	0.200	0	95.5	75	125	0.219	15	
Thallium	0.209	0.00150	0.200	0	104	75	125	0.086	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220927B

Sample ID: **ICV-220927** Batch ID: **R123226** TestNo: **SW6020B** Units: **mg/L**
SampType: **ICV** Run ID: **ICP-MS5_220927B** Analysis Date: **9/27/2022 10:42:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.102	0.00250	0.100	0	102	90	110			
Arsenic	0.0991	0.00500	0.100	0	99.1	90	110			
Barium	0.101	0.0100	0.100	0	101	90	110			
Beryllium	0.0970	0.00100	0.100	0	97.0	90	110			
Cadmium	0.101	0.00100	0.100	0	101	90	110			
Calcium	2.58	0.300	2.50	0	103	90	110			
Chromium	0.102	0.00500	0.100	0	102	90	110			
Cobalt	0.103	0.00500	0.100	0	103	90	110			
Lead	0.0998	0.00100	0.100	0	99.8	90	110			
Lithium	0.0984	0.0100	0.100	0	98.4	90	110			
Molybdenum	0.0963	0.00500	0.100	0	96.3	90	110			
Selenium	0.102	0.00500	0.100	0	102	90	110			
Thallium	0.0969	0.00150	0.100	0	96.9	90	110			

Sample ID: **LCVL-220927** Batch ID: **R123226** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCVL** Run ID: **ICP-MS5_220927B** Analysis Date: **9/27/2022 10:49:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00210	0.00250	0.00200	0	105	80	120			
Arsenic	0.00502	0.00500	0.00500	0	100	80	120			
Barium	0.00481	0.0100	0.00500	0	96.2	80	120			
Beryllium	0.00107	0.00100	0.00100	0	107	80	120			
Cadmium	0.000976	0.00100	0.00100	0	97.6	80	120			
Calcium	0.0962	0.300	0.100	0	96.2	80	120			
Chromium	0.00499	0.00500	0.00500	0	99.9	80	120			
Cobalt	0.00506	0.00500	0.00500	0	101	80	120			
Lead	0.000973	0.00100	0.00100	0	97.3	80	120			
Lithium	0.00991	0.0100	0.0100	0	99.1	80	120			
Molybdenum	0.00492	0.00500	0.00500	0	98.5	80	120			
Selenium	0.00497	0.00500	0.00500	0	99.4	80	120			
Thallium	0.000987	0.00150	0.00100	0	98.7	80	120			

Sample ID: **CCV3-220927** Batch ID: **R123226** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220927B** Analysis Date: **9/27/2022 12:53:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.200	0.00250	0.200	0	100	90	110			
Arsenic	0.201	0.00500	0.200	0	101	90	110			
Barium	0.201	0.0100	0.200	0	100	90	110			
Beryllium	0.195	0.00100	0.200	0	97.6	90	110			
Cadmium	0.201	0.00100	0.200	0	100	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220927B

Sample ID: **CCV3-220927** Batch ID: **R123226** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220927B** Analysis Date: **9/27/2022 12:53:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.99	0.300	5.00	0	99.9	90	110			
Chromium	0.201	0.00500	0.200	0	100	90	110			
Cobalt	0.209	0.00500	0.200	0	104	90	110			
Lead	0.199	0.00100	0.200	0	99.5	90	110			
Lithium	0.205	0.0100	0.200	0	102	90	110			
Molybdenum	0.194	0.00500	0.200	0	97.2	90	110			
Selenium	0.209	0.00500	0.200	0	105	90	110			
Thallium	0.210	0.00150	0.200	0	105	90	110			

Sample ID: **CCV4-220927** Batch ID: **R123226** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220927B** Analysis Date: **9/27/2022 1:52:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.198	0.00250	0.200	0	98.9	90	110			
Arsenic	0.197	0.00500	0.200	0	98.5	90	110			
Barium	0.200	0.0100	0.200	0	100	90	110			
Beryllium	0.193	0.00100	0.200	0	96.4	90	110			
Cadmium	0.198	0.00100	0.200	0	98.8	90	110			
Calcium	5.02	0.300	5.00	0	100	90	110			
Chromium	0.196	0.00500	0.200	0	98.1	90	110			
Cobalt	0.207	0.00500	0.200	0	103	90	110			
Lead	0.197	0.00100	0.200	0	98.7	90	110			
Lithium	0.205	0.0100	0.200	0	102	90	110			
Molybdenum	0.194	0.00500	0.200	0	97.0	90	110			
Selenium	0.209	0.00500	0.200	0	105	90	110			
Thallium	0.210	0.00150	0.200	0	105	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220922B

Sample ID: **DCS3-107107** Batch ID: **107107** TestNo: **E300** Units: **mg/L**
SampType: **DCS3** Run ID: **IC2_220922B** Analysis Date: **9/22/2022 3:30:53 PM** Prep Date: **9/22/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.883	1.00	1.000	0	88.3	70	130	0	0	
Fluoride	0.337	0.400	0.4000	0	84.2	70	130	0	0	
Sulfate	2.90	3.00	3.000	0	96.8	70	130	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220927B

The QC data in batch 107149 applies to the following samples: 2209187-01B, 2209187-02B, 2209187-03B, 2209187-04B, 2209187-05B, 2209187-06B, 2209187-07B, 2209187-08B

Sample ID: **MB-107149** Batch ID: **107149** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC2_220927B** Analysis Date: **9/27/2022 11:22:05 AM** Prep Date: **9/27/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	<0.300	1.00								
Fluoride	<0.100	0.400								
Sulfate	<1.00	3.00								

Sample ID: **LCS-107149** Batch ID: **107149** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC2_220927B** Analysis Date: **9/27/2022 11:39:05 AM** Prep Date: **9/27/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.91	1.00	10.00	0	99.1	90	110			
Fluoride	3.90	0.400	4.000	0	97.4	90	110			
Sulfate	30.3	3.00	30.00	0	101	90	110			

Sample ID: **LCSD-107149** Batch ID: **107149** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC2_220927B** Analysis Date: **9/27/2022 11:56:05 AM** Prep Date: **9/27/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.87	1.00	10.00	0	98.7	90	110	0.413	20	
Fluoride	3.89	0.400	4.000	0	97.1	90	110	0.273	20	
Sulfate	30.3	3.00	30.00	0	101	90	110	0.023	20	

Sample ID: **2209215-03CMS** Batch ID: **107149** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_220927B** Analysis Date: **9/27/2022 5:10:32 PM** Prep Date: **9/27/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	36400	1000	20000	19350	85.1	90	110			S
Fluoride	20400	400	20000	0	102	90	110			
Sulfate	223000	3000	20000	218900	22.9	90	110			S

Sample ID: **2209215-03CMSD** Batch ID: **107149** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_220927B** Analysis Date: **9/27/2022 5:27:32 PM** Prep Date: **9/27/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	35900	1000	20000	19350	82.8	90	110	1.30	20	S
Fluoride	20200	400	20000	0	101	90	110	1.17	20	
Sulfate	220000	3000	20000	218900	6.27	90	110	1.49	20	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220927B

Sample ID: **2209187-06BMS**	Batch ID: **107149**	TestNo: **E300**	Units: **mg/L**
SampType: **MS**	Run ID: **IC2_220927B**	Analysis Date: **9/27/2022 6:52:32 PM**	Prep Date: **9/27/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	2150	100	2000	85.04	103	90	110			
Fluoride	2210	40.0	2000	0	111	90	110			S
Sulfate	2110	300	2000	0	105	90	110			

Sample ID: **2209187-06BMSD**	Batch ID: **107149**	TestNo: **E300**	Units: **mg/L**
SampType: **MSD**	Run ID: **IC2_220927B**	Analysis Date: **9/27/2022 7:09:32 PM**	Prep Date: **9/27/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	2140	100	2000	85.04	103	90	110	0.177	20	
Fluoride	2210	40.0	2000	0	110	90	110	0.268	20	
Sulfate	2110	300	2000	0	106	90	110	0.126	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220927B

Sample ID: **ICV-220927**	Batch ID: **R123230**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_220927B**	Analysis Date: **9/27/2022 10:48:05 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.4	1.00	25.00	0	102	90	110			
Fluoride	10.1	0.400	10.00	0	101	90	110			
Sulfate	78.2	3.00	75.00	0	104	90	110			

Sample ID: **CCV1-220927**	Batch ID: **R123230**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220927B**	Analysis Date: **9/27/2022 8:17:32 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.0	1.00	10.00	0	100	90	110			
Fluoride	4.02	0.400	4.000	0	101	90	110			
Sulfate	30.7	3.00	30.00	0	102	90	110			

Sample ID: **CCV2-220927**	Batch ID: **R123230**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220927B**	Analysis Date: **9/28/2022 12:15:32 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.98	1.00	10.00	0	99.8	90	110			
Fluoride	4.01	0.400	4.000	0	100	90	110			
Sulfate	30.4	3.00	30.00	0	101	90	110			

Sample ID: **CCV3-220927**	Batch ID: **R123230**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220927B**	Analysis Date: **9/28/2022 4:13:31 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.0	1.00	10.00	0	100	90	110			
Fluoride	4.05	0.400	4.000	0	101	90	110			
Sulfate	30.7	3.00	30.00	0	102	90	110			

Sample ID: **CCV4-220927**	Batch ID: **R123230**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220927B**	Analysis Date: **9/28/2022 7:54:31 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.13	0.400	4.000	0	103	90	110			
Sulfate	30.7	3.00	30.00	0	102	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220930A

The QC data in batch 107208 applies to the following samples: 2209187-02B

Sample ID: **MB-107208** Batch ID: **107208** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC2_220930A** Analysis Date: **9/30/2022 11:05:57 AM** Prep Date: **9/30/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	<1.00	3.00								

Sample ID: **LCS-107208** Batch ID: **107208** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC2_220930A** Analysis Date: **9/30/2022 11:22:57 AM** Prep Date: **9/30/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	30.4	3.00	30.00	0	101	90	110			

Sample ID: **LCSD-107208** Batch ID: **107208** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC2_220930A** Analysis Date: **9/30/2022 11:39:57 AM** Prep Date: **9/30/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	29.3	3.00	30.00	0	97.8	90	110	3.54	20	

Sample ID: **2209187-02BMS** Batch ID: **107208** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_220930A** Analysis Date: **9/30/2022 2:48:36 PM** Prep Date: **9/30/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	3480	300	2000	1546	96.9	90	110			

Sample ID: **2209187-02BMSD** Batch ID: **107208** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_220930A** Analysis Date: **9/30/2022 3:05:36 PM** Prep Date: **9/30/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	3400	300	2000	1546	92.9	90	110	2.28	20	

Sample ID: **2209206-01CMS** Batch ID: **107208** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_220930A** Analysis Date: **9/30/2022 4:30:36 PM** Prep Date: **9/30/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	78.2	3.00	20.00	62.37	79.0	90	110			S

Sample ID: **2209206-01CMSD** Batch ID: **107208** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_220930A** Analysis Date: **9/30/2022 4:47:36 PM** Prep Date: **9/30/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	78.7	3.00	20.00	62.37	81.9	90	110	0.750	20	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_220930A

Sample ID: **ICV-220930**	Batch ID: **R123286**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_220930A**	Analysis Date: **9/30/2022 10:31:57 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	77.7	3.00	75.00	0	104	90	110			

Sample ID: **CCV1-220930**	Batch ID: **R123286**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_220930A**	Analysis Date: **9/30/2022 6:46:36 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	30.4	3.00	30.00	0	101	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: WC_220923A

The QC data in batch 107119 applies to the following samples: 2209187-01B, 2209187-02B, 2209187-03B, 2209187-04B, 2209187-05B

Sample ID: **MB-107119**	Batch ID: **107119**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_220923A**	Analysis Date: **9/26/2022 4:30:00 PM**	Prep Date: **9/23/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	<10.0	10.0								

Sample ID: **LCS-107119**	Batch ID: **107119**	TestNo: **M2540C**	Units: **mg/L**
SampType: **LCS**	Run ID: **WC_220923A**	Analysis Date: **9/26/2022 4:30:00 PM**	Prep Date: **9/23/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	753	10.0	745.6	0	101	90	113			

Sample ID: **2209164-02A-DUP**	Batch ID: **107119**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220923A**	Analysis Date: **9/26/2022 4:30:00 PM**	Prep Date: **9/23/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1340	50.0	0	1300				2.66	5	

Sample ID: **2209176-01C-DUP**	Batch ID: **107119**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220923A**	Analysis Date: **9/26/2022 4:30:00 PM**	Prep Date: **9/23/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	2510	50.0	0	2535				1.19	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

ANALYTICAL QC SUMMARY REPORT

RunID: WC_220926A

The QC data in batch 107137 applies to the following samples: 2209187-06B, 2209187-07B, 2209187-08B

Sample ID: **MB-107137**	Batch ID: **107137**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_220926A**	Analysis Date: **9/26/2022 4:00:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	<10.0	10.0								

Sample ID: **LCS-107137**	Batch ID: **107137**	TestNo: **M2540C**	Units: **mg/L**
SampType: **LCS**	Run ID: **WC_220926A**	Analysis Date: **9/26/2022 4:00:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	742	10.0	745.6	0	99.5	90	113			

Sample ID: **2209172-02D-DUP**	Batch ID: **107137**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220926A**	Analysis Date: **9/26/2022 4:00:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	2700	50.0	0	2730				1.10	5	

Sample ID: **2209184-02C-DUP**	Batch ID: **107137**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220926A**	Analysis Date: **9/26/2022 4:00:00 PM**	Prep Date: **9/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	27500	50.0	0	27730				0.978	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: WSP-Golder
Work Order: 2209187
Project: MLSES Ash Ponds CCR

MQL SUMMARY REPORT

TestNo: E300	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Chloride	0.300	1.00
Fluoride	0.100	0.400
Sulfate	1.00	3.00

TestNo: SW6020B	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Antimony	0.000800	0.00250
Arsenic	0.00200	0.00500
Barium	0.00300	0.0100
Beryllium	0.000300	0.00100
Boron	0.0100	0.0300
Cadmium	0.000300	0.00100
Calcium	0.100	0.300
Chromium	0.00200	0.00500
Cobalt	0.00300	0.00500
Lead	0.000300	0.00100
Lithium	0.00500	0.0100
Molybdenum	0.00200	0.00500
Selenium	0.00200	0.00500
Thallium	0.000500	0.00150

TestNo: SW7470A	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Mercury	0.0000800	0.000200

TestNo: M2540C	**MDL**	**MQL**
Analyte	**mg/L**	**mg/L**
Total Dissolved Solids (Residue, Filt	10.0	10.0

Qualifiers: MQL -Method Quantitation Limit as defined by TRRP
MDL -Method Detection Limit as defined by TRRP

ANALYTICAL REPORT

November 15, 2022

DHL Analytical, Inc.

Sample Delivery Group: L1540029

Samples Received: 09/27/2022

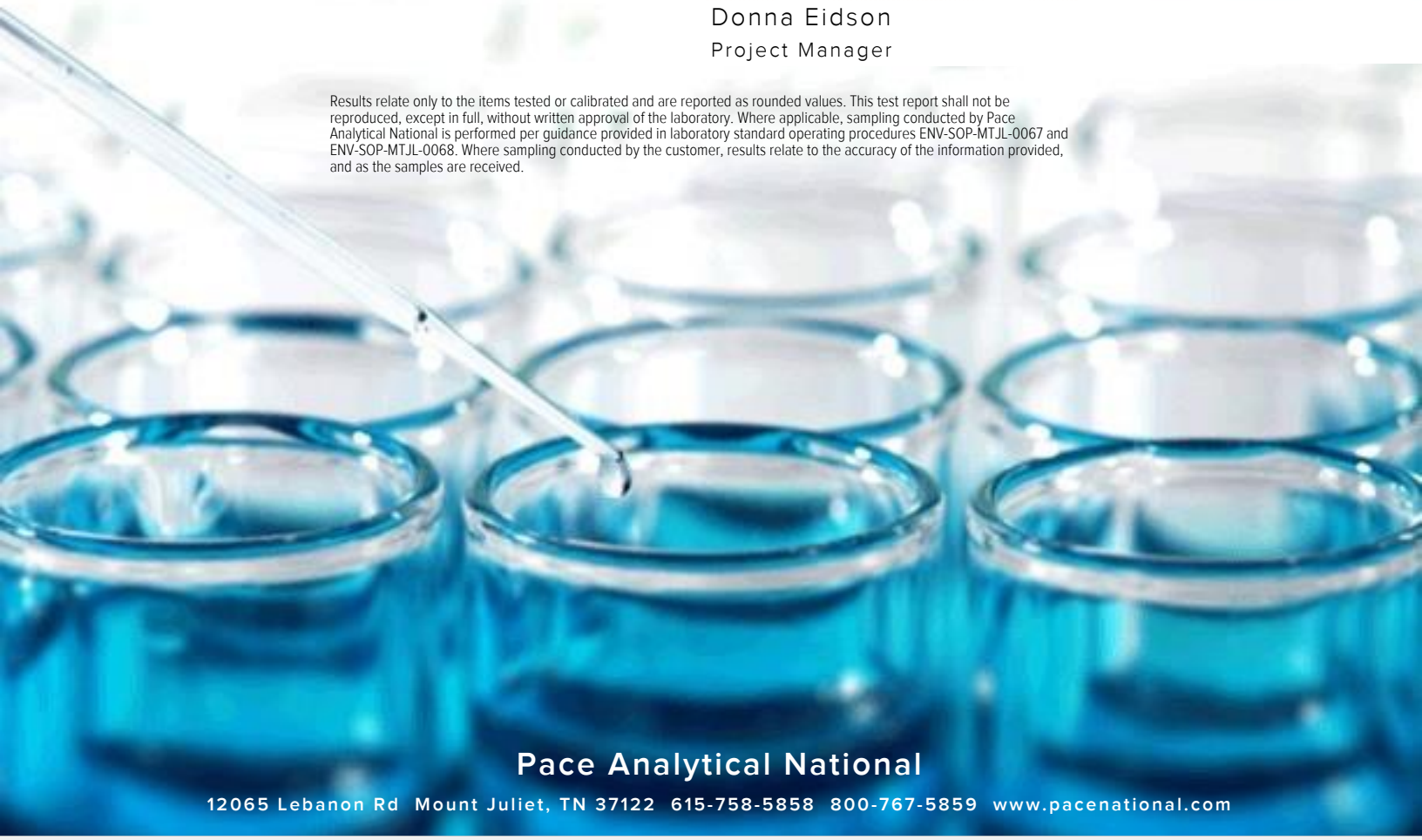
Project Number:

Description:

Report To: John DuPont
2300 Double Creek Drive
Round Rock, TX 78664

Entire Report Reviewed By:

Donna Eidson
Project Manager



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

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H-28 L1540029-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	09/20/22 15:20	09/27/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1946150	1	10/24/22 09:10	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1938639	1	10/19/22 14:00	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1938639	1	10/19/22 14:00	10/20/22 14:25	RGT	Mt. Juliet, TN

H-29 L1540029-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	09/20/22 16:15	09/27/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1946150	1	10/24/22 09:10	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1938639	1	10/19/22 14:00	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1938639	1	10/19/22 14:00	10/20/22 14:25	RGT	Mt. Juliet, TN

H-31 L1540029-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	09/20/22 17:10	09/27/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1946150	1	10/24/22 09:10	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1938639	1	10/19/22 14:00	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1938639	1	10/19/22 14:00	10/20/22 14:25	RGT	Mt. Juliet, TN

H-32 L1540029-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	09/20/22 18:00	09/27/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1946150	1	10/24/22 09:10	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1938639	1	10/19/22 14:00	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1938639	1	10/19/22 14:00	10/20/22 14:25	RGT	Mt. Juliet, TN

DUP-1 L1540029-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	09/20/22 18:00	09/27/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1946150	1	10/24/22 09:10	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1938639	1	10/19/22 14:00	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1938639	1	10/19/22 14:00	10/20/22 14:25	RGT	Mt. Juliet, TN

H-27 L1540029-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	09/21/22 08:05	09/27/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1946150	1	10/24/22 09:10	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1938639	1	10/19/22 14:00	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1938639	1	10/19/22 14:00	10/20/22 14:25	RGT	Mt. Juliet, TN

H-33 L1540029-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	09/21/22 09:00	09/27/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1946150	1	10/24/22 09:10	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1938639	1	10/19/22 14:00	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1938639	1	10/19/22 14:00	10/20/22 14:25	RGT	Mt. Juliet, TN

H-26 L1540029-08 Non-Potable Water

Collected by	Collected date/time	Received date/time
	09/21/22 09:55	09/27/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG1946150	1	10/24/22 09:10	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG1938639	1	10/19/22 14:00	11/14/22 11:04	SWM	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG1938639	1	10/19/22 14:00	10/20/22 14:25	RGT	Mt. Juliet, TN

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 radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. 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.

Donna Eidson
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.601		0.277	0.498	11/14/2022 11:04	WG1946150
(T) Barium	*81.4*			*30.0-143*	*11/14/2022 11:04*	WG1946150
(T) Yttrium	*101*			*30.0-136*	*11/14/2022 11:04*	WG1946150

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.921		0.348	0.528	11/14/2022 11:04	WG1938639

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.320		0.211	0.176	10/20/2022 14:25	WG1938639
(T) Barium-133	*94.7*			*30.0-143*	*10/20/2022 14:25*	WG1938639

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.00		0.265	0.463	11/14/2022 11:04	WG1946150
(T) Barium	*79.3*			*30.0-143*	*11/14/2022 11:04*	WG1946150
(T) Yttrium	*106*			*30.0-136*	*11/14/2022 11:04*	WG1946150

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.26		0.354	0.548	11/14/2022 11:04	WG1938639

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.253	J	0.235	0.293	10/20/2022 14:25	WG1938639
(T) Barium-133	*101*			*30.0-143*	*10/20/2022 14:25*	WG1938639

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.891		0.253	0.443	11/14/2022 11:04	WG1946150
(T) Barium	*75.5*			*30.0-143*	*11/14/2022 11:04*	WG1946150
(T) Yttrium	*99.7*			*30.0-136*	*11/14/2022 11:04*	WG1946150

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.05		0.324	0.529	11/14/2022 11:04	WG1938639

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.155	J	0.202	0.289	10/20/2022 14:25	WG1938639
(T) Barium-133	*97.1*			*30.0-143*	*10/20/2022 14:25*	WG1938639

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.72		0.253	0.405	11/14/2022 11:04	WG1946150
(T) Barium	*72.0*			*30.0-143*	*11/14/2022 11:04*	WG1946150
(T) Yttrium	*98.0*			*30.0-136*	*11/14/2022 11:04*	WG1946150

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.72		0.266	0.481	11/14/2022 11:04	WG1938639

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.0498	U	0.0825	0.259	10/20/2022 14:25	WG1938639
(T) Barium-133	*102*			*30.0-143*	*10/20/2022 14:25*	WG1938639

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.398	J	0.309	0.566	11/14/2022 11:04	WG1946150
(T) Barium	*71.3*			*30.0-143*	*11/14/2022 11:04*	WG1946150
(T) Yttrium	*92.1*			*30.0-136*	*11/14/2022 11:04*	WG1946150

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.418	J	0.331	0.615	11/14/2022 11:04	WG1938639

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0199	U	0.120	0.241	10/20/2022 14:25	WG1938639
(T) Barium-133	*96.9*			*30.0-143*	*10/20/2022 14:25*	WG1938639

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.07		0.284	0.494	11/14/2022 11:04	WG1946150
(T) Barium	*76.1*			*30.0-143*	*11/14/2022 11:04*	WG1946150
(T) Yttrium	*96.5*			*30.0-136*	*11/14/2022 11:04*	WG1946150

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.37		0.368	0.553	11/14/2022 11:04	WG1938639

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.302		0.234	0.249	10/20/2022 14:25	WG1938639
(T) Barium-133	*93.5*			*30.0-143*	*10/20/2022 14:25*	WG1938639

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.09		0.245	0.419	11/14/2022 11:04	WG1946150
(T) Barium	*75.4*			*30.0-143*	*11/14/2022 11:04*	WG1946150
(T) Yttrium	*104*			*30.0-136*	*11/14/2022 11:04*	WG1946150

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.32		0.333	0.510	11/14/2022 11:04	WG1938639

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.232	J	0.226	0.290	10/20/2022 14:25	WG1938639
(T) Barium-133	*95.1*			*30.0-143*	*10/20/2022 14:25*	WG1938639

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.502		0.241	0.435	11/14/2022 11:04	WG1946150
(T) Barium	*77.7*			*30.0-143*	*11/14/2022 11:04*	WG1946150
(T) Yttrium	*105*			*30.0-136*	*11/14/2022 11:04*	WG1946150

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.574		0.265	0.469	11/14/2022 11:04	WG1938639

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0719	J	0.111	0.174	10/20/2022 14:25	WG1938639
(T) Barium-133	*92.5*			*30.0-143*	*10/20/2022 14:25*	WG1938639

Method Blank (MB)

(MB) R3861283-1 11/14/22 11:04

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-228	0.454		0.178	0.318
(T) Barium	*78.9*		*78.9*	
(T) Yttrium	*104*		*104*	

L1540210-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1540210-02 11/14/22 11:04 • (DUP) R3861283-5 11/14/22 11:04

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-228	0.000	0.318	0.593	0.813	0.355	0.593	1	200	1.71		20	3
(T) Barium	*69.5*			*77.0*	*77.0*							
(T) Yttrium	*103*			*107*	*107*							

Laboratory Control Sample (LCS)

(LCS) R3861283-2 11/14/22 11:04

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-228	5.00	5.16	103	80.0-120	
(T) Barium			*111*		
(T) Yttrium			*102*		

L1540189-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1540189-04 11/14/22 11:04 • (MS) R3861283-3 11/14/22 11:04 • (MSD) R3861283-4 11/14/22 11:04

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-228	16.7	-0.241	14.9	15.2	89.3	91.0	1	70.0-130			1.93		20
(T) Barium		*73.7*			*117*	*120*							
(T) Yttrium		*106*			*103*	*105*							

QUALITY CONTROL SUMMARY

L1540029-01,02,03,04,05,06,07,08

Method Blank (MB)

(MB) R3856114-1 10/20/22 14:25

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	0.00773	U	0.0339	0.0672
(T) Barium-133	*94.7*		*94.7*	

L1540029-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1540029-08 10/20/22 14:25 • (DUP) R3856114-5 10/20/22 14:25

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-226	0.0719	0.111	0.174	0.296	0.207	0.174	1	122	0.955		20	3
(T) Barium-133	*92.5*			*97.2*	*97.2*							

Laboratory Control Sample (LCS)

(LCS) R3856114-2 10/20/22 14:25

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.02	4.95	98.6	80.0-120	
(T) Barium-133			*100*		

L1540029-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1540029-01 10/20/22 14:25 • (MS) R3856114-3 10/20/22 14:25 • (MSD) R3856114-4 10/20/22 14:25

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	0.320	19.1	19.5	93.8	95.8	1	75.0-125			2.07		20
(T) Barium-133		*94.7*			*92.0*	*93.8*							

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

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

DHL Analytical, Inc.
2300 Double Creek Drive
Round Rock, TX 78664
TEL: *(512) 388-8222* FAX:

CHAIN-OF-CUSTODY RECORD

Work Order: 2209187

Subcontractor:

Pace Analytical
12065 Lebanon Rd
Mt. Juliet, TN 37122

TEL: (615) 773-5923
FAX:
Acct #: DHLRRTX

H021 L1540029

23-Sep-22

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests: Ra-228 E904.0	Requested Tests: Ra-226 M7500 Ra B M					
H-28	Aqueous	01C	09/20/22 03:20 PM	1LHDPEHNO3		1					-01
H-28	Aqueous	01D	09/20/22 03:20 PM	1LHDPEHNO3	1						
H-29	Aqueous	02C	09/20/22 04:15 PM	1LHDPEHNO3		1					-02
H-29	Aqueous	02D	09/20/22 04:15 PM	1LHDPEHNO3	1						
H-31	Aqueous	03C	09/20/22 05:10 PM	1LHDPEHNO3		1					-03
H-31	Aqueous	03D	09/20/22 05:10 PM	1LHDPEHNO3	1						
H-32	Aqueous	04C	09/20/22 06:00 PM	1LHDPEHNO3		1					-04
H-32	Aqueous	04D	09/20/22 06:00 PM	1LHDPEHNO3	1						
DUP-1	Aqueous	05C	09/20/22 06:00 PM	1LHDPEHNO3		1					-05
DUP-1	Aqueous	05D	09/20/22 06:00 PM	1LHDPEHNO3	1						
H-27	Aqueous	06C	09/21/22 08:05 AM	1LHDPEHNO3		1					-06
H-27	Aqueous	06D	09/21/22 08:05 AM	1LHDPEHNO3	1						
H-33	Aqueous	07C	09/21/22 09:00 AM	1LHDPEHNO3		1					-07
H-33	Aqueous	07D	09/21/22 09:00 AM	1LHDPEHNO3	1						
H-26	Aqueous	08C	09/21/22 09:55 AM	1LHDPEHNO3		1					-08
H-26	Aqueous	08D	09/21/22 09:55 AM	1LHDPEHNO3	1						

General Comments:

Please analyze these samples with Normal Turnaround Time.
Report Ra-226, Ra-228 & Combined per Specs.
Quality Control Package Needed: Standard - NELAC Rad Test compliant
Email to cac@dhlanalytical.com & dupont@dhlanalytical.com

UPS Count: 16

Sample Receipt Checklist

COC Seal Present/Intact:	Y ✓ N	If Applicable	
COC Signed/Accurate:	✓ Y N	VOA Zero Headspace:	Y ✓ N
Bottles arrive intact:	✓ Y N	Pres.Correct/Check:	✓ Y N
Correct bottles used:	✓ Y N		
Sufficient volume sent:	✓ Y N		
RAD Screen <0.5 mR/hr:	✓ Y N	Amb	

		Date/Time			Date/Time
Relinquished by:		9/23/22 1800	Received by:		9-27-22 09:30
Relinquished by:	Received by:		Received by:		

ATTACHMENT 2

APPENDIX IV CONFIDENCE INTERVAL GRAPHS

EXPLANATION

95% Upper confidence limit

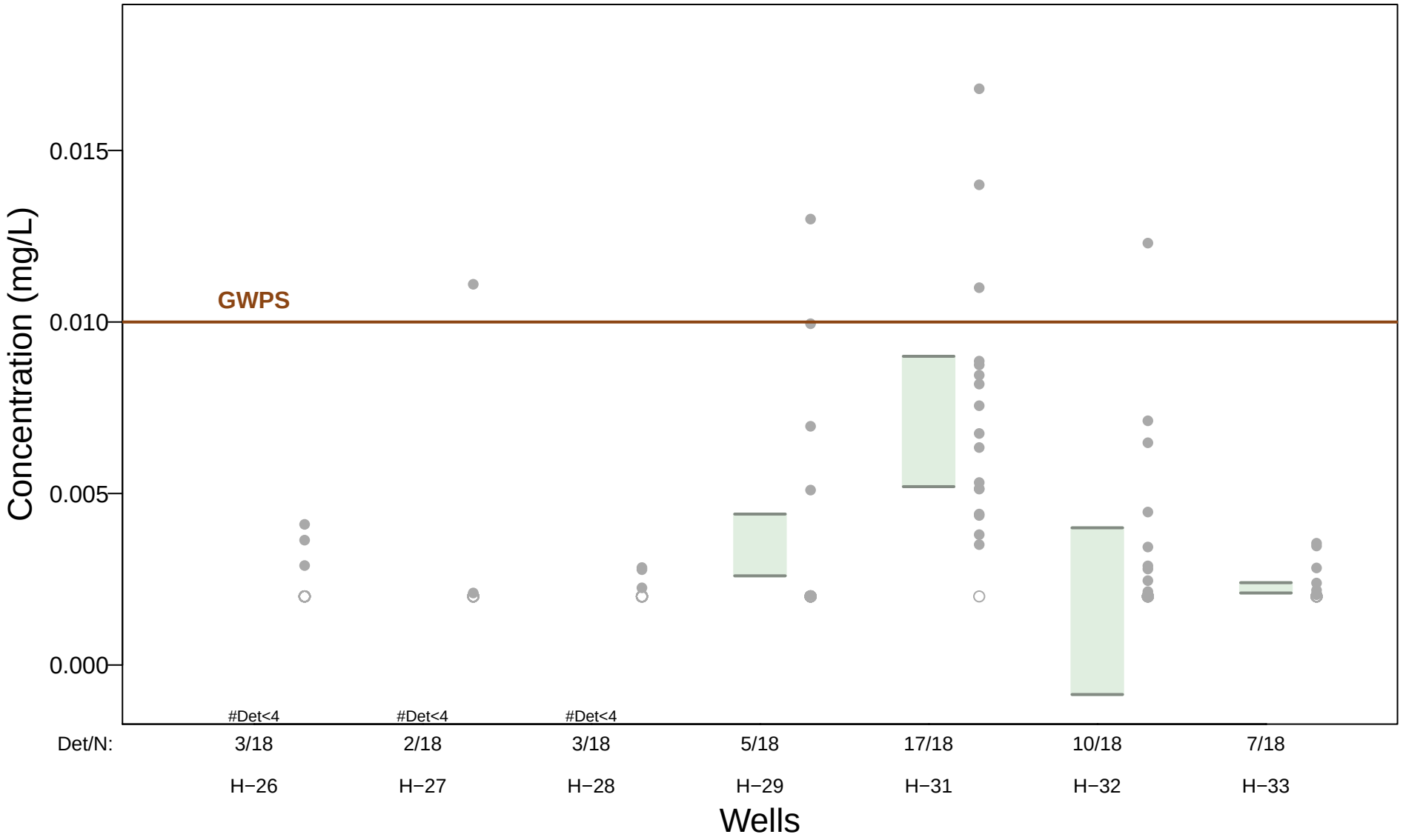
95% Lower confidence limit

Detected sample concentration

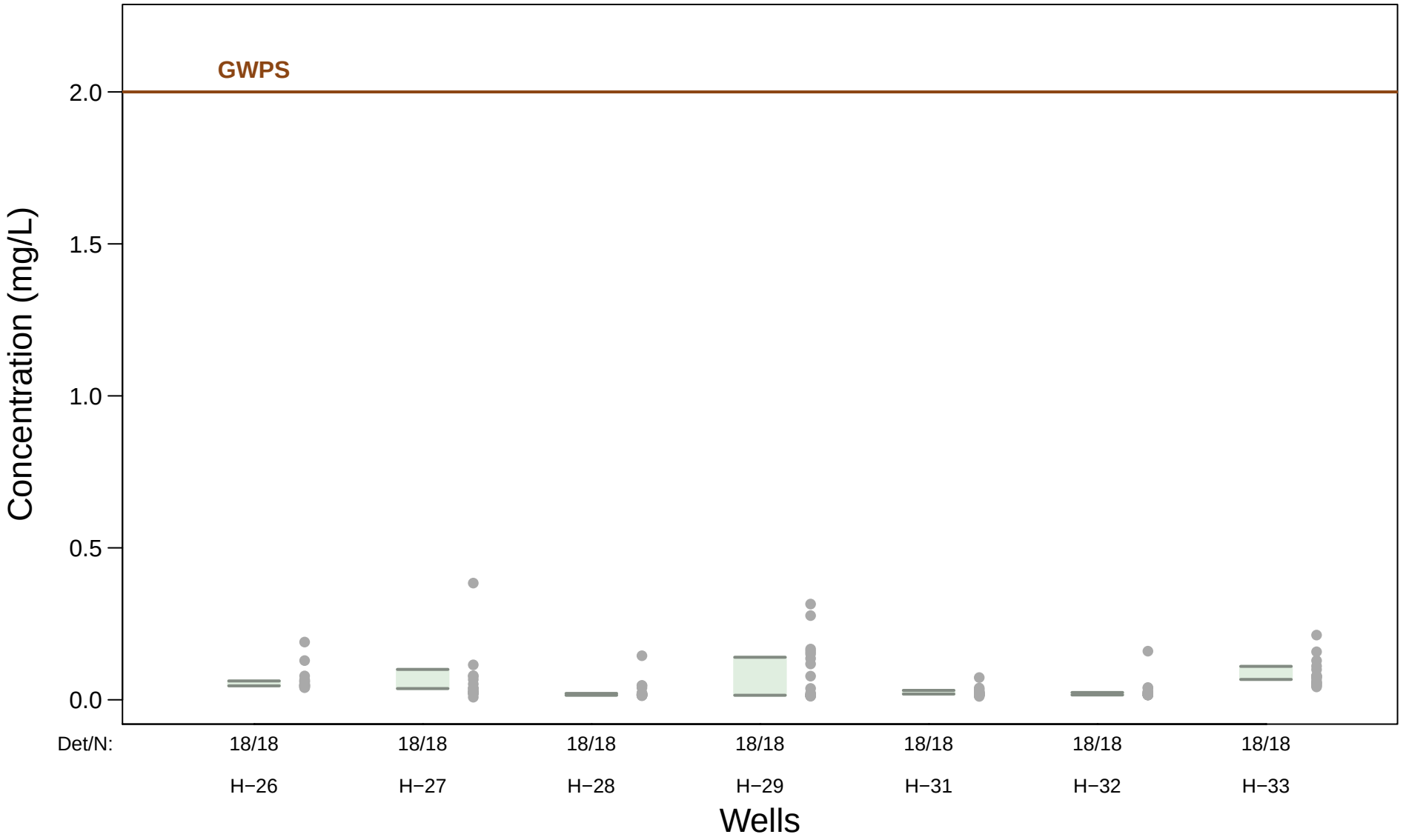
Non-detect sample result (concentration set to laboratory reporting limit)

Note: An SSL is indicated if the lower confidence limit exceeds the GWPS.

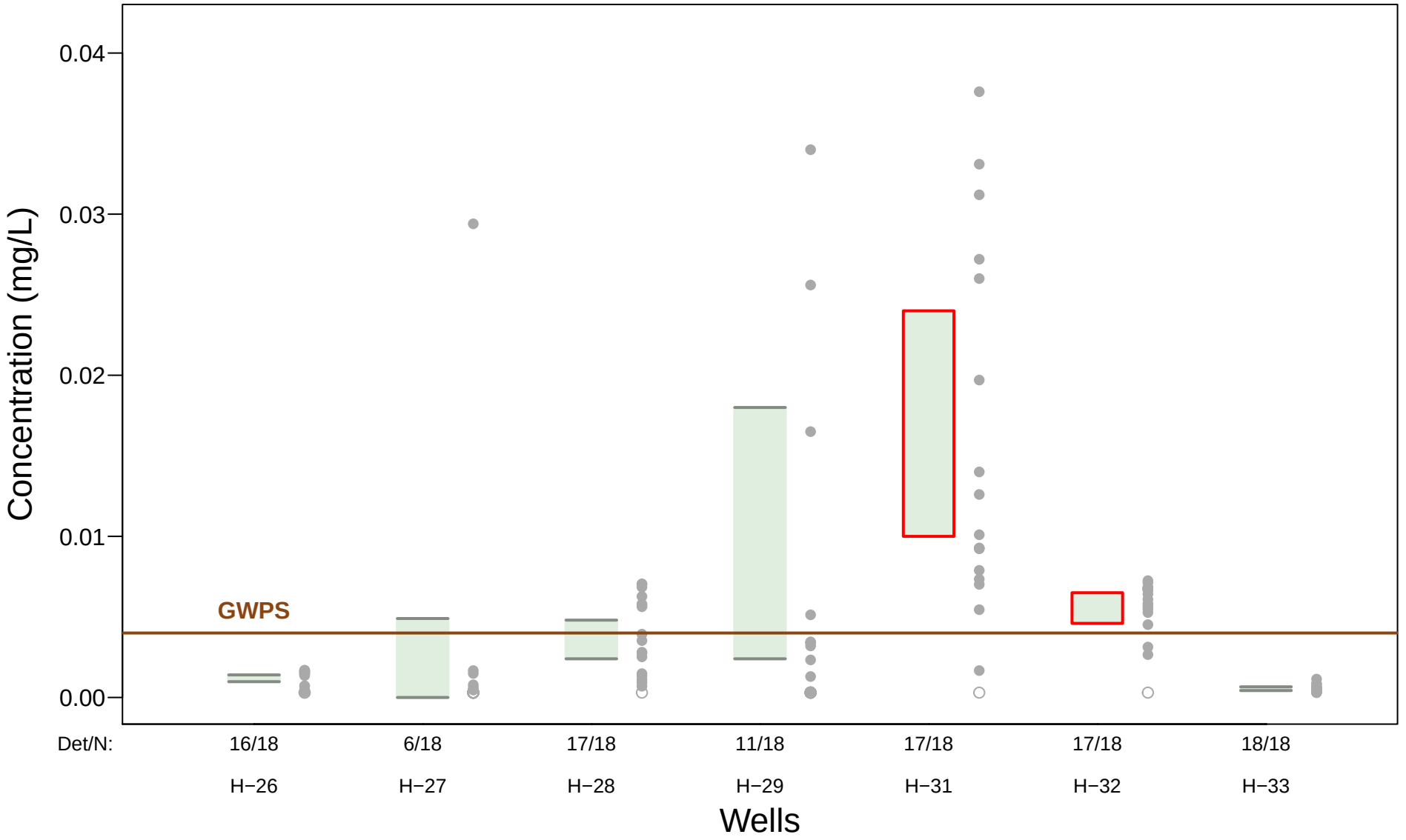
Arsenic − 95% Confidence Intervals



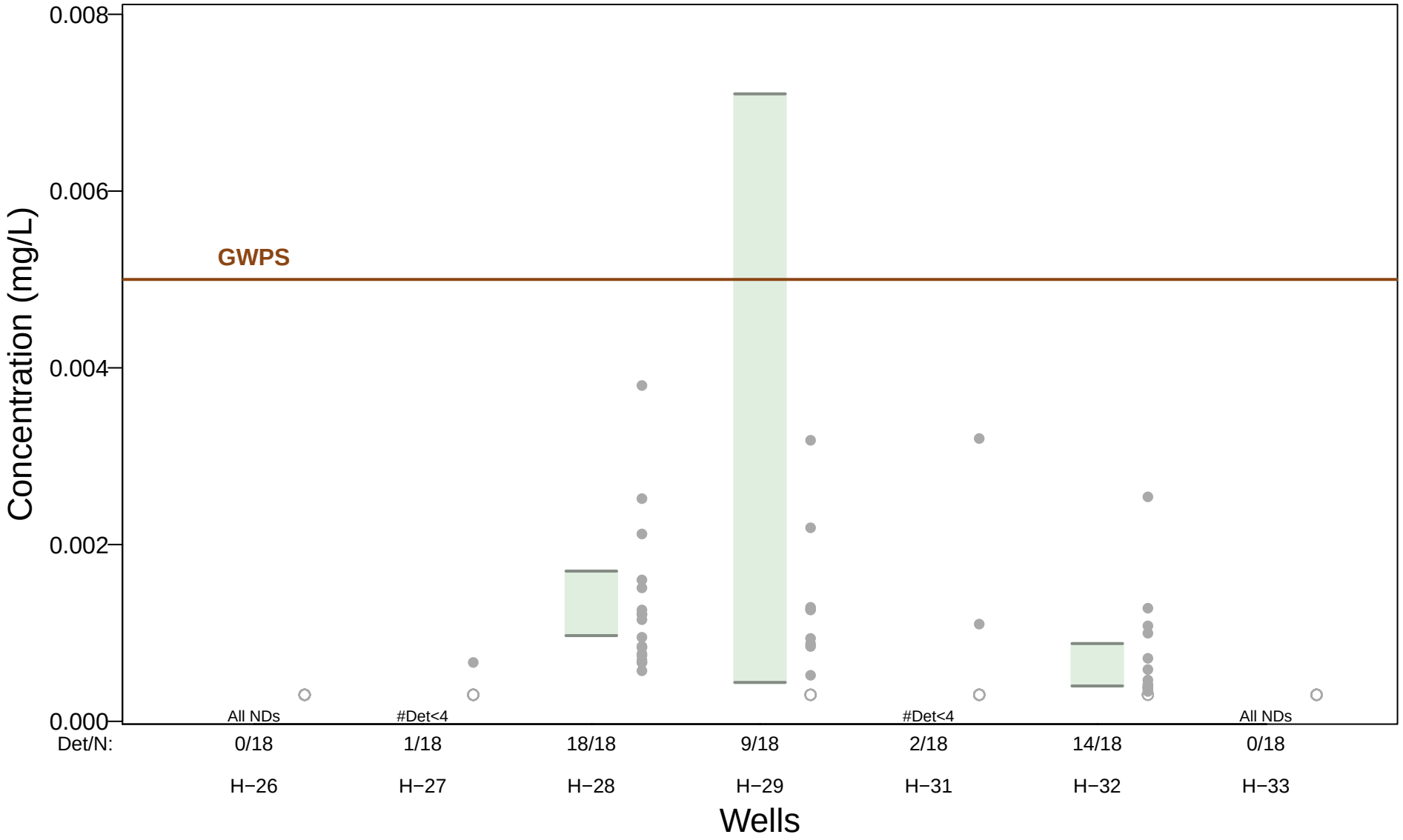
Barium – 95% Confidence Intervals



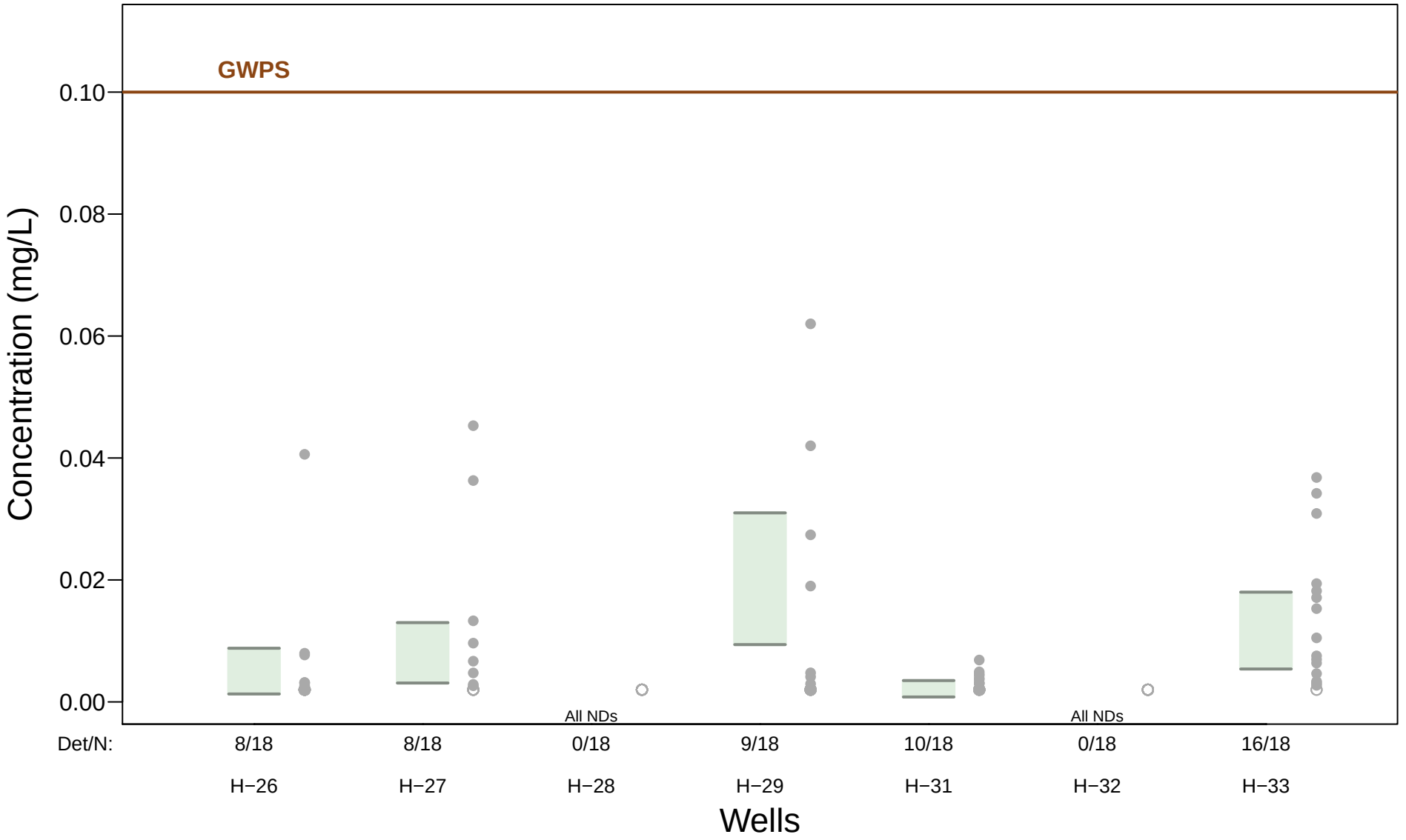
Beryllium – 95% Confidence Intervals



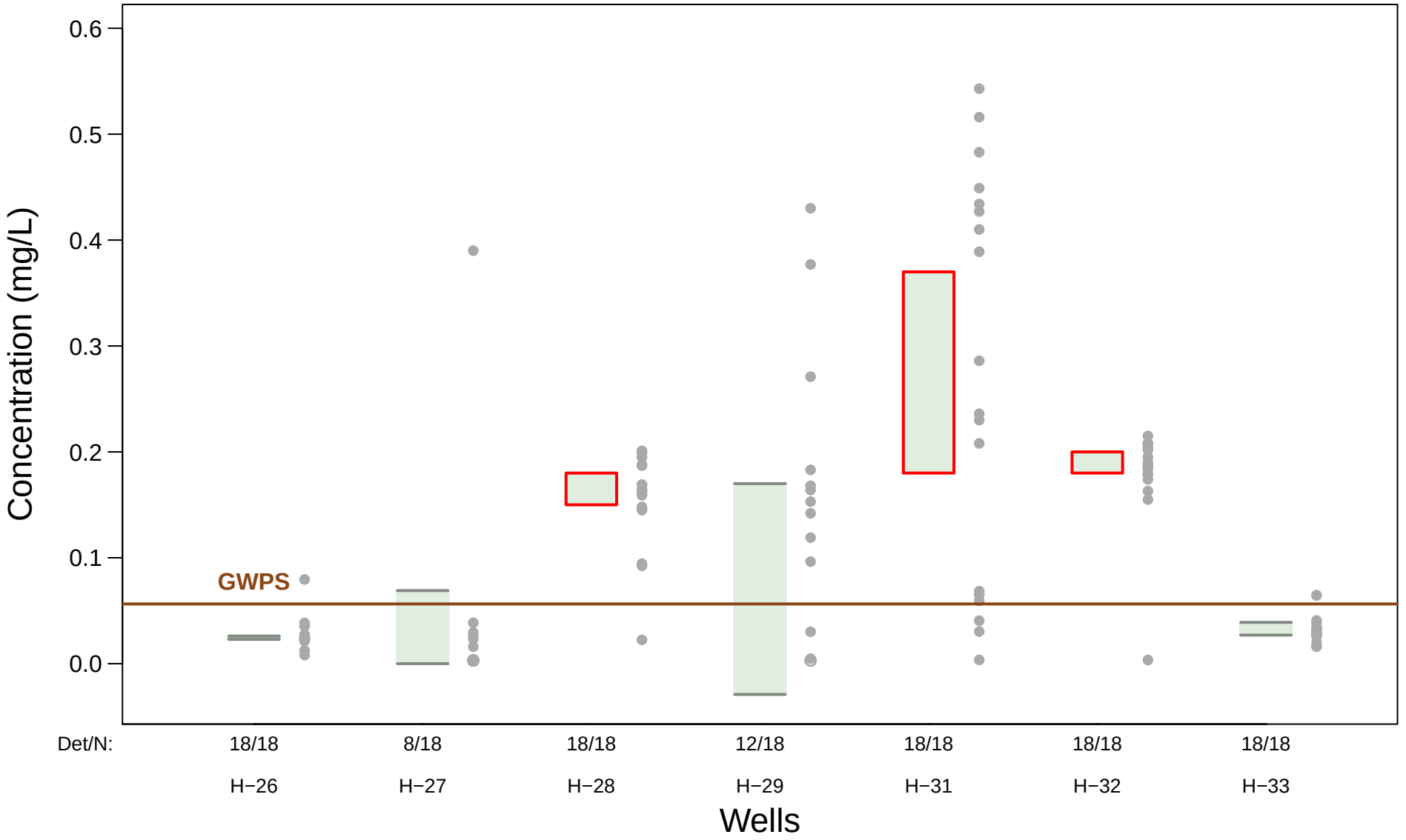
Cadmium − 95% Confidence Intervals



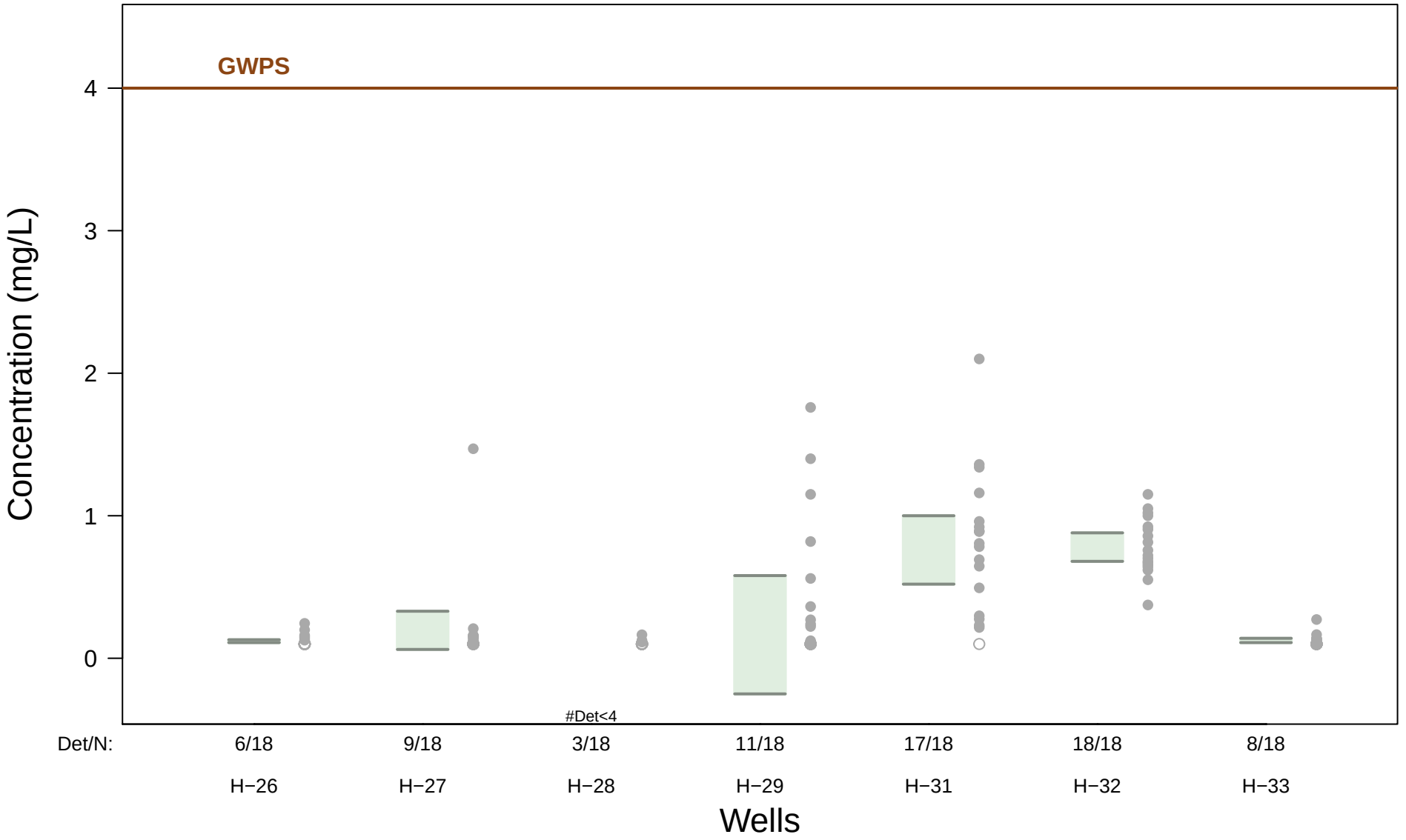
Chromium – 95% Confidence Intervals



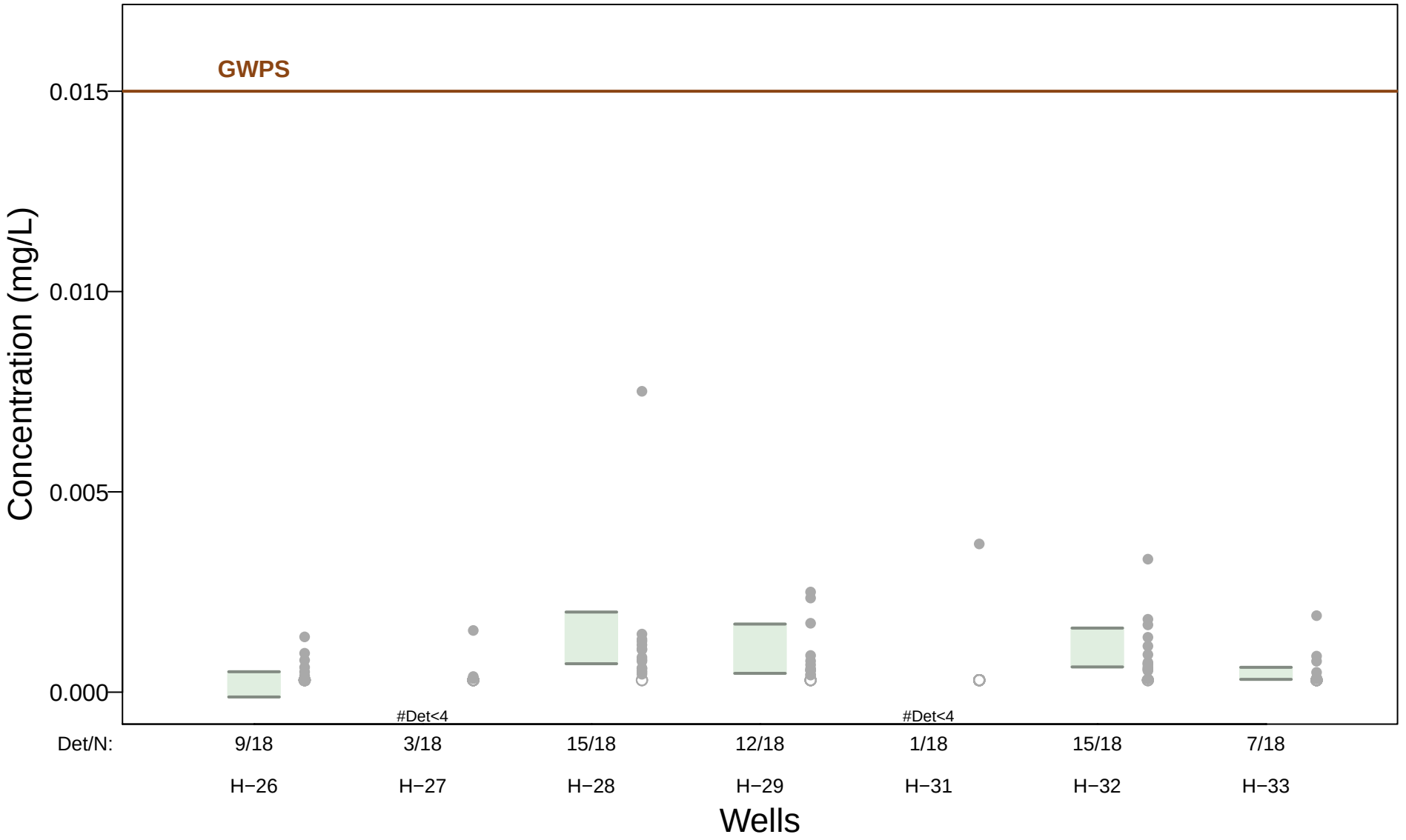
Cobalt – 95% Confidence Intervals



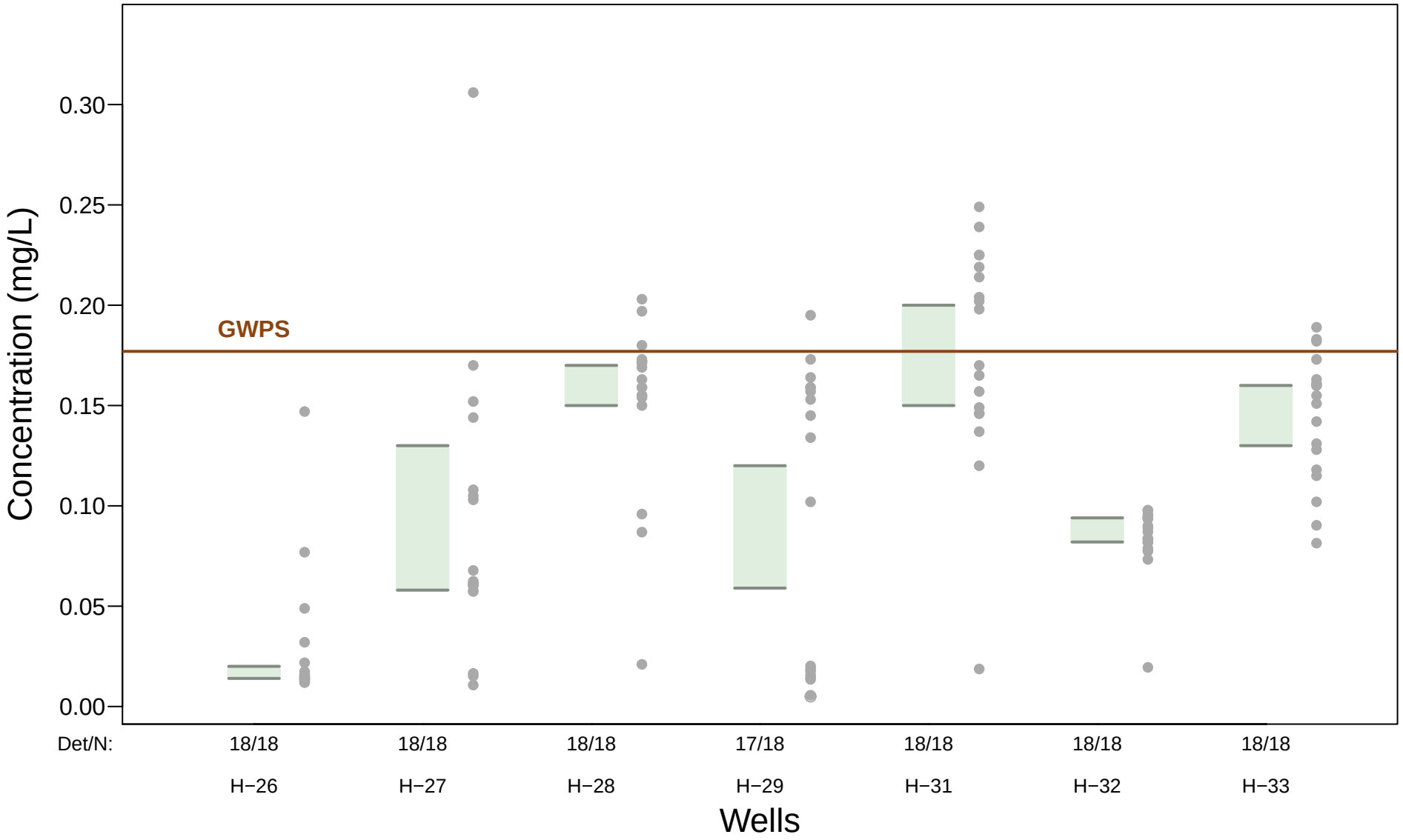
Fluoride (Appendix IV) – 95% Confidence Intervals



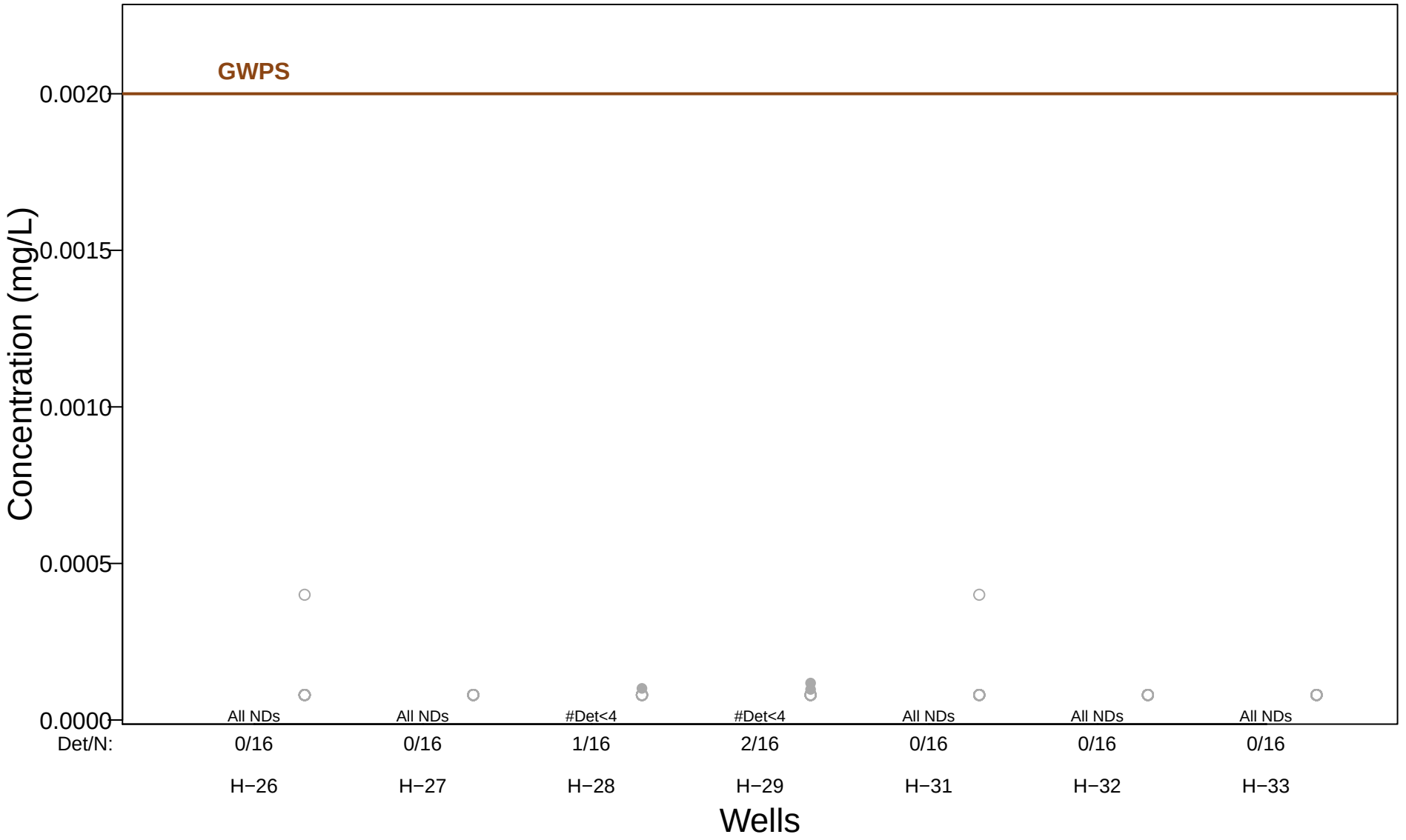
Lead – 95% Confidence Intervals



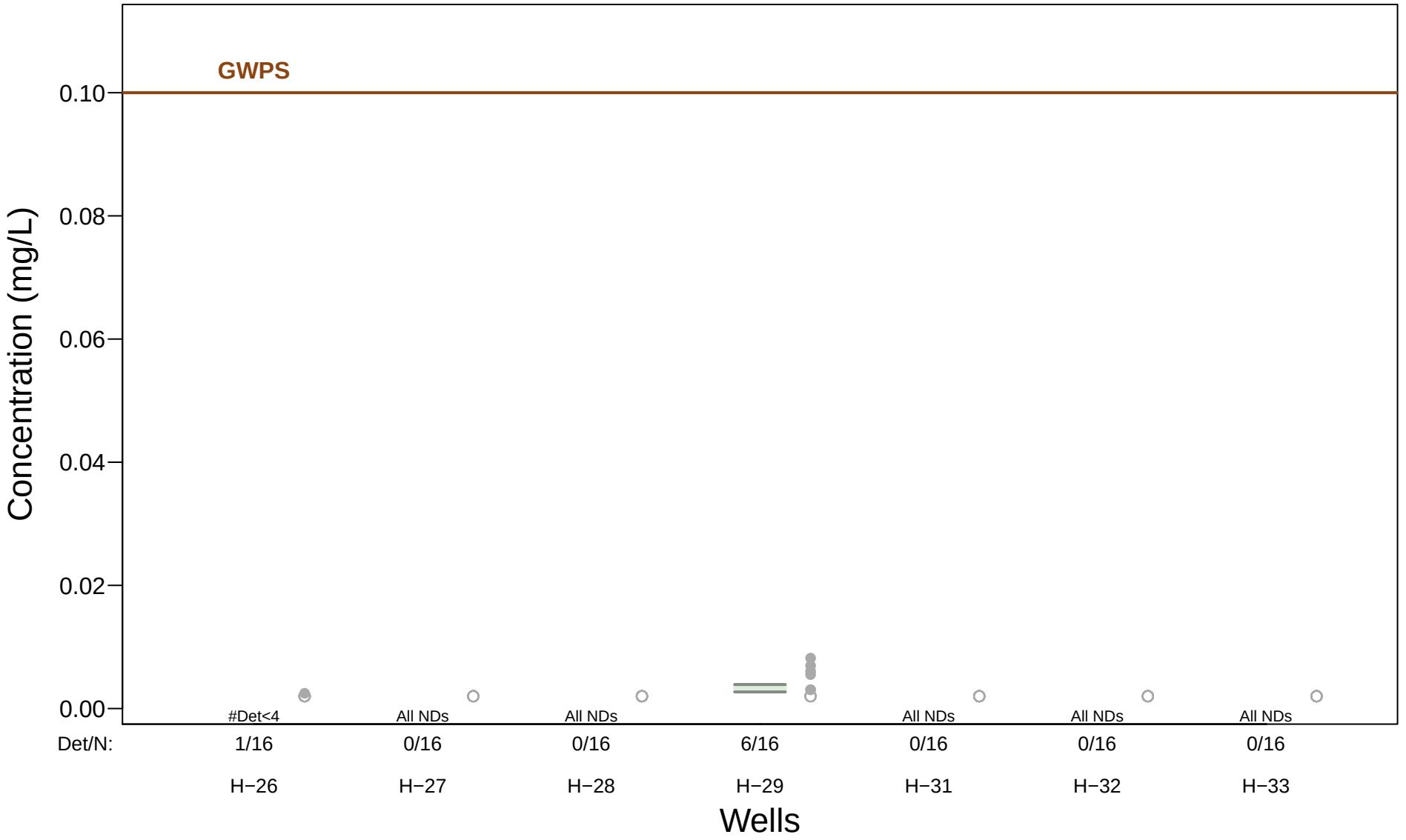
Lithium – 95% Confidence Intervals



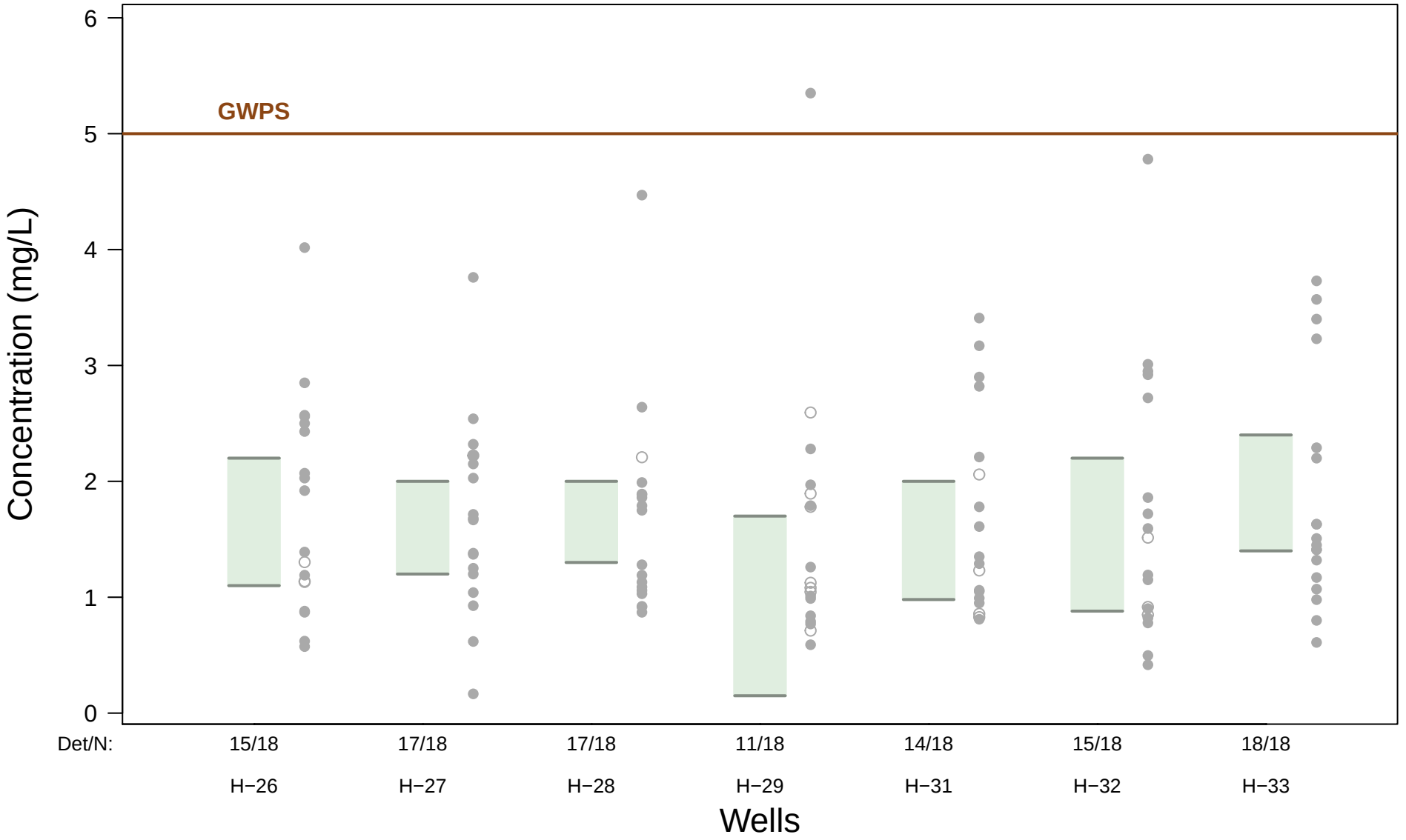
Mercury – 95% Confidence Intervals



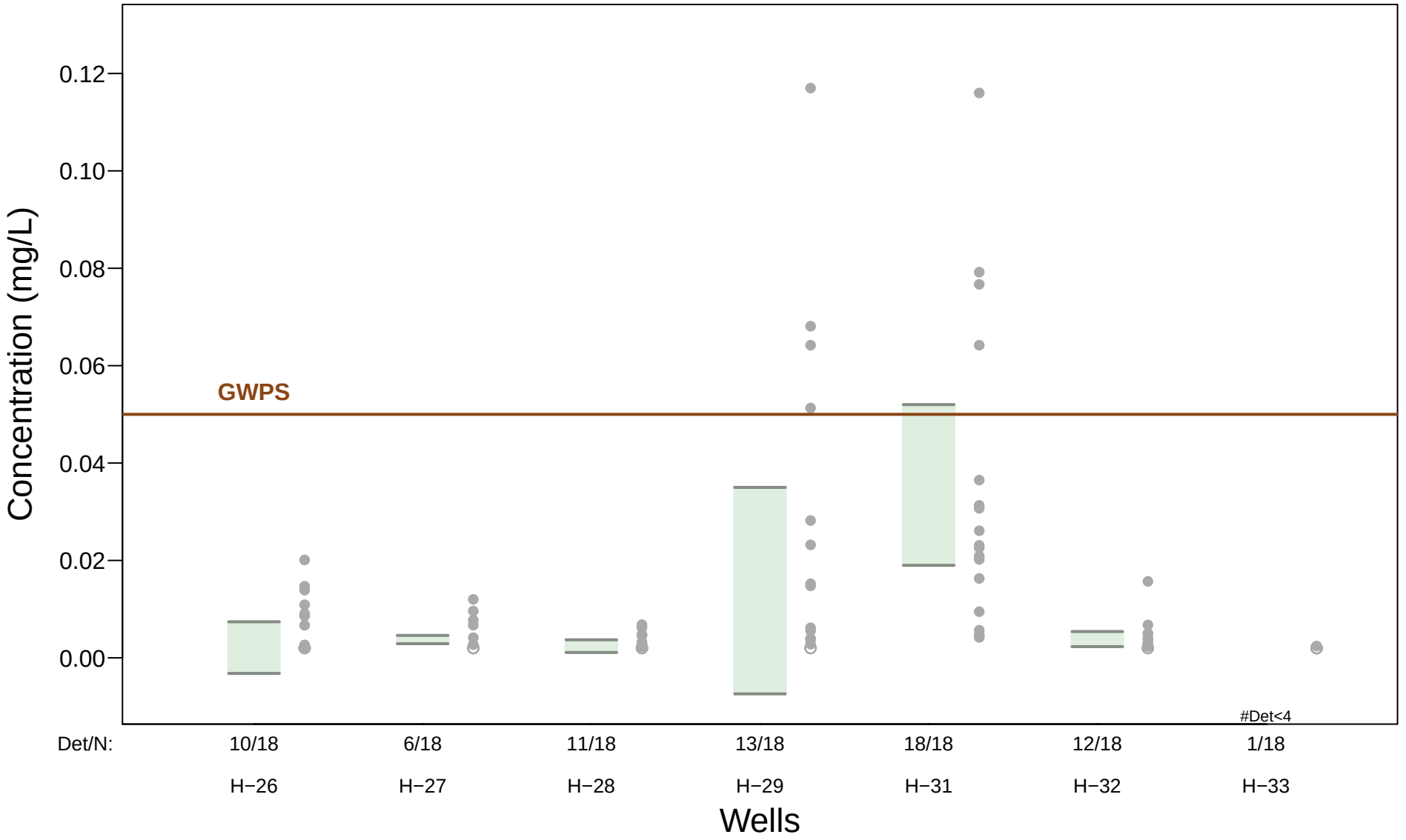
Molybdenum – 95% Confidence Intervals



Radium−226/228 combined − 95% Confidence Intervals

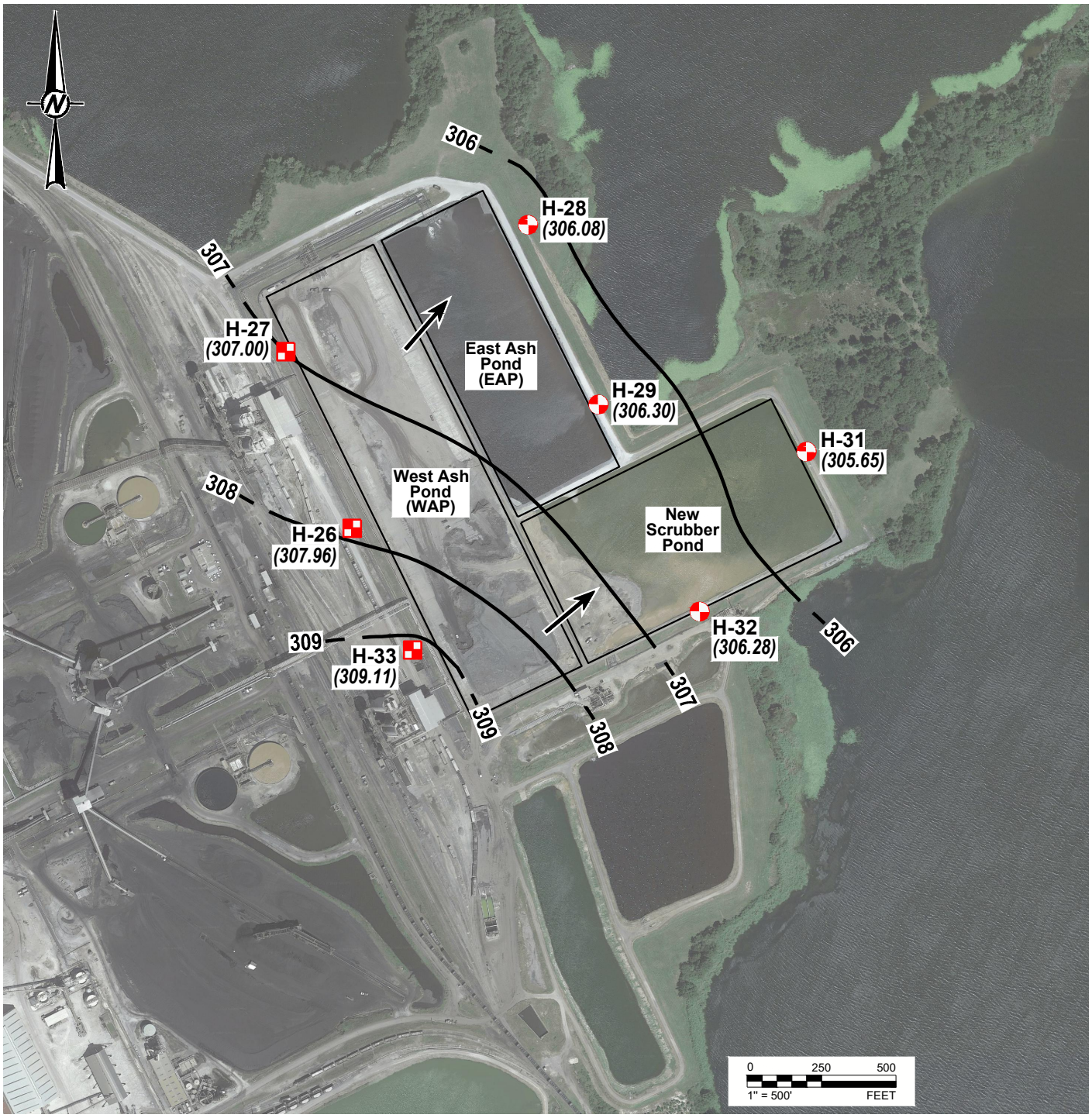


Selenium − 95% Confidence Intervals



ATTACHMENT 3

GROUNDWATER POTENTIOMETRIC SURFACE MAPS



LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- (308.70) GROUNDWATER POTENTIOMETRIC SURFACE (FT MSL)
- 308 GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR (C.I. = 1 FT)
- INFERRED GROUNDWATER FLOW DIRECTION

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST
11/3/23

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED SEPTEMBER 8, 2021.

CLIENT
LUMINANT

PROJECT
MARTIN LAKE STEAM ELECTRIC STATION
TATUM, TEXAS

TITLE
ASH POND AREA
POTENTIOMETRIC SURFACE MAP
MAY 25, 2022

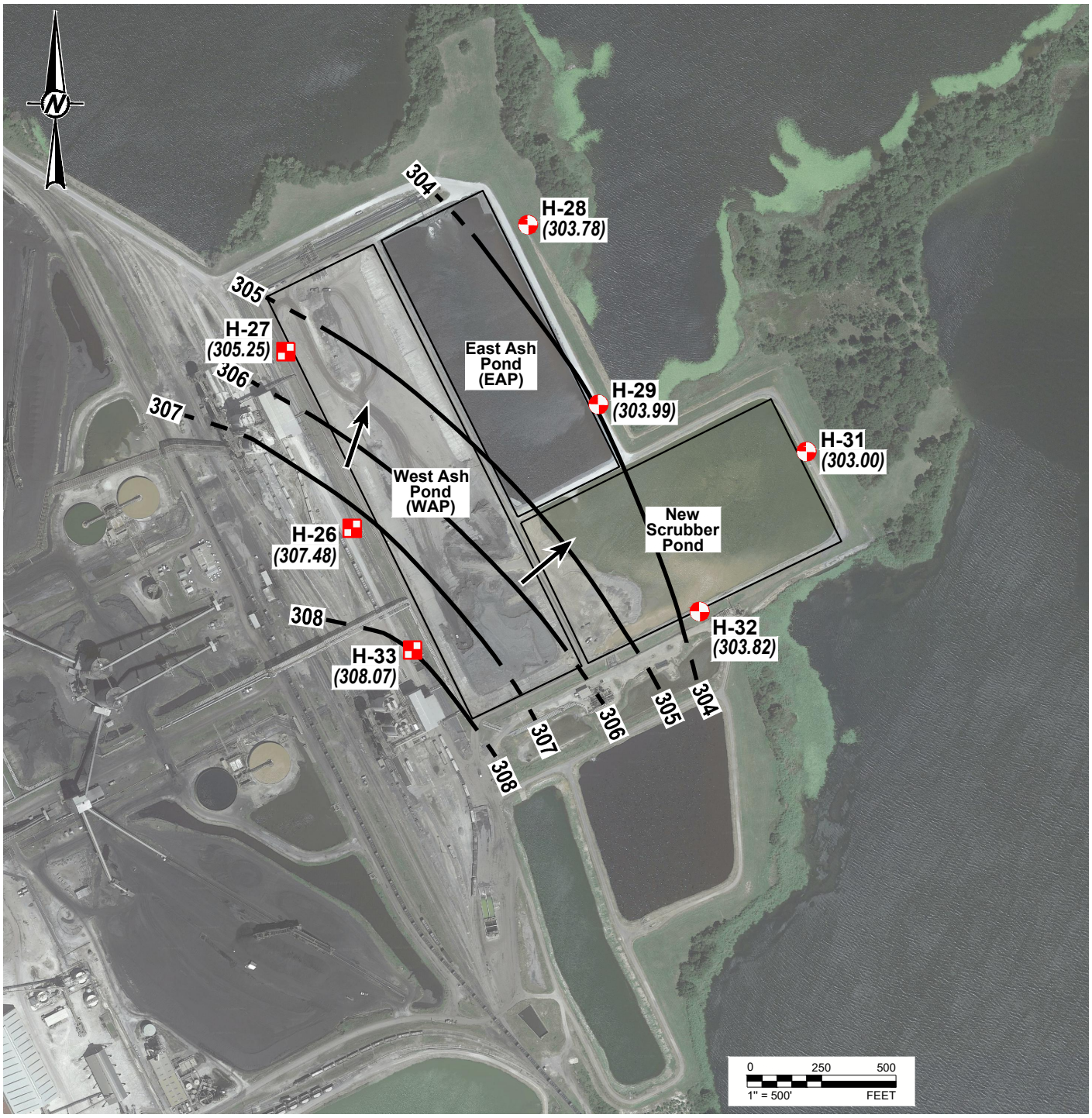
CONSULTANT
wsp

YYYY-MM-DD	2022-12-20
DESIGNED	TNB
PREPARED	TNB
REVIEWED	JJ
APPROVED	WFV

PROJECT NO. 31404097.002 | REV. 0 | FIGURE 1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Last Edited By: tbookout Date: 2022-12-20 Time:12:48:15 PM | Printed By: TBookout Date: 2022-12-20 Time:12:49:10 PM
Path: \\golder.gds\complexdata\office\texarkana\projects - round rock_2022\31404097 - luminant ccr\Martin Lake\PRODUCTION\2022-12\ | File Name: 2 - POT Surface Map-Ash Pond Area (May 2022).dwg



LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- (308.70) GROUNDWATER POTENTIOMETRIC SURFACE (FT MSL)
- 308 GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR (C.I. = 1 FT)
- INFERRED GROUNDWATER FLOW DIRECTION

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST
11/31/23

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED SEPTEMBER 8, 2021.

CLIENT
LUMINANT

PROJECT
MARTIN LAKE STEAM ELECTRIC STATION
TATUM, TEXAS

TITLE
ASH POND AREA
POTENTIOMETRIC SURFACE MAP
SEPTEMBER 22, 2022

CONSULTANT
wsp

YYYY-MM-DD	2022-12-20
DESIGNED	TNB
PREPARED	TNB
REVIEWED	JJ
APPROVED	WFV

PROJECT NO. 31404097.002 | REV. 0 | FIGURE 2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Last Edited By: tbookout Date: 2022-12-20 Time:12:48:20 PM | Printed By: TBookout Date: 2022-12-20 Time:12:49:59 PM
Path: \\golder.gds\complexdata\office\texarkana\projects - round rock_2022\31404097 - luminant ccr\Martin Lake\PRODUCTION\2022-12\ | File Name: 2 - POT Surface Map-Ash Pond Area (September 2022).dwg