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COAL COMBUSTION RESIDUAL RULE
2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

ASH PONDS
MARTIN LAKE STEAM ELECTRIC STATION
RUSK COUNTY, TEXAS

January 31, 2025

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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

Bullock, Bennett & Associates, LLC (BBA) has prepared this report on behalf of Luminant Generation Company LLC (Luminant) to satisfy the 2024 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, West Ash Pond, and New Scrubber Pond. The CCR units and CCR monitoring well network are shown on Figure 1.

At the beginning and end of the 2024 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. 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. 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. Construction of the East Ash Pond, West Ash Pond, and New Scrubber Pond retrofits were completed in 2020, 2021, and 2023, respectively, with a new composite liner system meeting the requirements of § 257.70(c).

During 2024, SSLs above GWPSs were observed in the Ash Pond Area for beryllium in wells H-29, H-31, and H-32 and cobalt in wells H-28, H-31, and H-32. SSLs for lithium have not been observed since 2018.

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*) was 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

The initial Detection Monitoring Program groundwater samples were collected 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). The initial Assessment Monitoring Program groundwater samples were collected 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 are sampled for Appendix III and Appendix IV constituents during the Assessment Monitoring Program sampling events.

As documented in the Background Groundwater Monitoring and Statistical Analysis Summary Report (BBA, 2024), statistical background upper prediction limits (UPLs) and GWPSs were developed using statistical procedures that conform with the groundwater sampling and analysis requirements of 40 C.F.R. § 257.93 and the EPA's *Unified Guidance: Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities* (EPA, 2009). 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.

Concentrations of Appendix IV constituents at 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 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. 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. 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. Construction of the East Ash Pond, West Ash Pond, and New Scrubber Pond retrofits were completed in 2020, 2021, and 2023, respectively, with a new composite liner system meeting the requirements of § 257.70(c).

Appendix III and Appendix IV groundwater sample data are summarized in Tables 3 and 4, respectively. Laboratory analytical reports for the groundwater samples collected in 2024 are provided in Appendix A. In accordance with the assessment monitoring program requirements in 40 C.F.R. § 257.95, Appendix IV constituent concentrations are used to evaluate whether an SSL above GWPSs has occurred at a site. The 95% lower confidence limit of the mean (LCL) is calculated for each detected Appendix IV constituent in a downgradient well using the current and previous sampling event concentrations in accordance with procedures described in the Statistical Analysis Plan for the site (Golder 2022) and the *Unified Guidance* (EPA, 2009). A statistically significant increase over the GWPS has occurred at a CCR unit when the LCL for at least one assessment monitoring constituent at a downgradient well is greater than the applicable GWPS. The statistical data analysis for the current period is summarized in Appendix B.

SSLs above GWPSs were identified for beryllium and cobalt during each of the semi-annual groundwater monitoring events since 2019, including both monitoring events in 2024. SSLs for lithium have not been observed since 2018. Notification of the SSLs has been made after each SSL was identified in accordance with § 257.107(d) and 30 TAC § 352.951(d).

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

Assessment Monitoring Program Summary

Sampling Completion Dates	Analytical Data Receipt Date	Parameters	Appendix IV Constituents with SSL(s)	Appendix IV SSL Determination Date	Corrective Measures Assessment Initiated	Corrective Measures Assessment Completed
June 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
May 25, 2022	July 13, 2022	Appendix III Appendix IV	Be and Co	August 1, 2022	NA	NA
September 21, 2022	November 16, 2022	Appendix III Appendix IV	Be and Co	December 24, 2022	NA	NA
May 17, 2023	June 30, 2023	Appendix III Appendix IV	Be and Co	July 28, 2023	NA	NA
August 14, 2023	September 21, 2023	Appendix III Appendix IV	Be and Co	December 11, 2023	NA	NA

Sampling Completion Dates	Analytical Data Receipt Date	Parameters	Appendix IV Constituents with SSL(s)	Appendix IV SSL Determination Date	Corrective Measures Assessment Initiated	Corrective Measures Assessment Completed
April 24, 2024	June 10, 2024	Appendix III Appendix IV	Be and Co	July 19, 2024	NA	NA
August 6, 2024	September 9, 2024	Appendix III Appendix IV	Be and Co	November 11, 2024	NA	NA

Notes:
NA: Not Applicable

3.0 KEY ACTIONS COMPLETED IN 2024

Assessment Monitoring Program groundwater monitoring events were completed in April and July/August 2024. 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). A map showing the CCR unit and monitoring wells is provided as Figure 1. No CCR wells were installed or decommissioned in 2024.

Water elevations measured in the CCR wells during the 2024 semi-annual groundwater monitoring events are summarized in Table 5 and groundwater potentiometric surface maps are presented in Appendix C. The inferred direction and magnitude of groundwater flow during the semi-annual monitoring events was generally to the east-northeast at about 9 feet per year, which is similar to previously observed conditions at the site.

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. 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. 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.

During 2024, SSLs above GWPSs were observed in the Ash Pond Area for beryllium in wells H-29, H-31, and H-32 and for cobalt in wells H-28, H-31, and H-32. Notifications of the observed SSLs were submitted to the executive director via email as required under 30 TAC § 352.951(d) on July 30, 2024, for the first semi-annual sampling event and November 25, 2024, for the second semi-annual sampling event. SSLs above GWPSs were not observed for any of the other Appendix IV constituents in 2024. Time series plots of the constituents detected at SSLs are provided in Appendix D. The time series plots show that beryllium and cobalt concentrations

are generally stable or decreasing in wells where SSLs above GWPSs have been detected. Data will continue to be collected and assessed on a semi-annual basis to evaluate potential trends in the data and evaluate the long-term effectiveness of source control measures and MNA as a remedy.

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 based on the SSLs of beryllium and cobalt identified at the site in 2024.

4.0 PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the CCR groundwater monitoring program in 2024.

5.0 KEY ACTIVITIES PLANNED FOR 2024

The following key activities are planned for 2024:

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

6.0 REFERENCES

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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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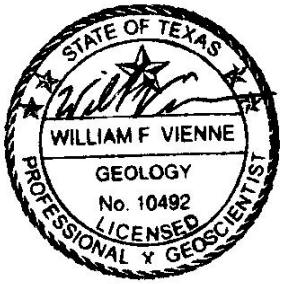

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FIGURES

LEGEND

DOWNGRADIENT CCR MONITORING WELL

UPGRADIENT CCR MONITORING WELL

REFERENCE(S)

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

LUMINANT

MARTIN LAKE STEAM ELECTRIC STATION
TATUM, TEXAS

Figure 1

ASH POND AREA
SITE PLAN

PROJECT: 23643.01	BY: SLB	DATE: 12/14/2023	CHECKED: WV

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

TABLES

Table 1
Appendix III Background Statistical Values
MLSES Ash Pond Area

Parameter	Statistical Background Value
Boron (mg/L)	0.60
Calcium (mg/L)	57
Chloride (mg/L)	150
Fluoride (mg/L)	0.40
field pH (s.u.)	4.60 7.6
Sulfate (mg/L)	370
Total Dissolved Solids (mg/L)	1,100

Table 2
Appendix IV Analytical Results
MLSES Ash Pond Area

Parameter	Groundwater Protection Standard
Antimony (mg/L)	0.0060
Arsenic (mg/L)	0.010
Barium (mg/L)	2.0
Beryllium (mg/L)	0.0040
Cadmium (mg/L)	0.0050
Chromium (mg/L)	0.10
Cobalt (mg/L)	0.056
Fluoride (mg/L)	4.0
Lead (mg/L)	0.015
Lithium (mg/L)	0.18
Mercury (mg/L)	0.0020
Molybdenum (mg/L)	0.10
Selenium (mg/L)	0.050
Thallium (mg/L)	0.0020
Radium 226+228 (pCi/L)	5.0

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	0.41	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
	05/17/23	0.355	16.5	77.3	<0.100	6.58	43.9	302
	08/14/23	0.421	16.1	78.5	<0.100	6.73	48.9	295
	04/24/24	0.37	16.6	81.2	<0.100	6.73	45.3	288
	07/30/24	0.278	31.9	68.8	0.233 J	6.74	34.2	277
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
	05/17/23	0.0478	23.1	84.2	<0.100	6.71	79.8	379
	08/14/23	0.362	15.4	64	<0.100	6.75	40	254
	04/24/24	0.369	13.3	85.2	<0.100	6.81	42	276
	07/30/24	0.265	17.4	66.6	<0.100	6.84	29.9	241

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
	09/21/22	0.058	21.4	96.9	<0.100	6.74	109	425
	05/17/23	0.0646	41.6	100	<0.100	6.77	105	493
	5/17/23 DUP	0.0507	41.9	95.2	<0.100	6.77	104	486
	08/14/23	0.157	52	102	<0.100	6.79	104	511
	8/14/23 DUP	0.0634	43.6	101	<0.100	6.79	104	518
	04/24/24	0.0564	41.1	102	<0.100	6.73	103	473
	4/24/2024 DUP	0.0538	38.8	103	<0.100	6.73	101	475
	07/30/24	0.0536	50.9	111	<0.100	6.83	107	503
	7/30/2024 DUP	0.0506	51.6	111	<0.100	6.83	106	505
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	87.6	<0.100	6.57	622	1190
	05/17/23	5.47	81.4	99.2	<0.100	6.57	719	1350
	08/14/23	5.79	73.5	94.7	<0.100	6.61	662	1310
	04/24/24	6.91	88.9	110	<0.100	6.78	791	1500
	07/29/24	7.15	96.6	120	<0.100	6.77	827	1580

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	3.1	47.5	45.7	<0.100	6.72	338	654
	09/20/22	10.3	136	156	0.819	6.76	1550	2640
	05/17/23	4.39	64.7	80.6	<0.100	6.42	522	1010
	08/14/23	3.7	48.5	63.8	<0.100	6.53	435	865
	04/24/24	4.98	65.4	100	<0.100	6.69	682	1330
	07/29/24	7.91	108	122	<0.100	6.77	907	1620
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
	05/17/23	19.4	262	225	0.874	6.68	2400	4060
	08/14/23	4.61	57.8	66.7	<0.100	6.64	455	918
	04/24/24	6.17	80.5	99.9	<0.100	6.68	687	1330
	07/29/24	6.12	85.4	94.2	<0.100	6.64	691	1250

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	105	0.758	6.65	322	775
	09/20/22	1.91	44.8	111	0.67	6.92	327	766
	05/17/23	1.93	45.8	110	0.502	6.54	315	759
	08/14/23	3.74	48.0	61.3	<0.100	6.52	416	849
	04/24/24	0.0498	25.5	87.2	<0.100	6.57	79.8	579
	08/06/24	7.57	109	122	<0.100	6.54	924	1660

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
MLSES 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	<0.218	0.508 J	0.621 J
	09/21/22	<0.000800	<0.00200	0.0587	0.0016	<0.000300	<0.00200	0.026	<0.100	0.000507 J	0.0161	<0.0000800	<0.00200	0.00859	<0.000500	0.0719 J	0.502	0.574
	05/17/23	<0.000800	<0.00200	0.099	0.00122	<0.000300	0.00298 J	0.0242	<0.100	0.000615 J	0.0211	<0.0000800	<0.00200	0.0138	<0.000500	0.567	1.15	1.72
	08/14/23	<0.000800	<0.00200	0.0890	0.00150	<0.000300	0.00216 J	0.0244	<0.100	0.000518 J	0.0201	0.0000824 J	<0.00200	0.0140	<0.000500	0.375	1.62	1.99
	04/24/24	<0.000800	<0.00200	0.0982	0.00123	<0.000300	0.00470 J	0.0251	<0.100	0.000939 J	0.0228	0.000132 J	<0.00200	0.0172	<0.000500	0.124 U	1.19	1.32
	07/30/24	<0.000800	<0.00200	0.167	0.00102	<0.000300	0.00680	0.0171	0.233 J	<0.000300	0.0379	<0.0000800	<0.00200	0.00792	<0.000500	0.352	0.924	1.28
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	0.39	1.47	0.00154	0.144	<0.0000800	<0.00200	0.012	<0.000500	0.345	<0.258	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
	05/17/23	<0.000800	<0.00200	0.0911	0.000440 J	<0.000300	<0.00200	0.0246	<0.100	<0.000300	0.0958	<0.0000800	<0.00200	<0.00200	<0.000500	0.714	<0.308	0.714
	08/14/23	<0.000800	<0.00200	0.0836	0.00123	<0.000300	0.00318 J	0.0216	<0.100	0.00149	0.0182	0.000113 J	<0.00200	0.0136	<0.000500	0.619	0.896	1.515
	04/24/24	<0.000800	<0.00200	0.0691	0.00169	<0.000300	<0.00200	0.0282	<0.100	0.000453 J	0.0152	0.000211	<0.00200	0.00478 J	<0.000500	0.391 J	0.648	1.04
	07/30/24	<0.000800	<0.00200	0.109	0.00127	<0.000300	0.00451 J	0.0191	<0.100	0.000499 J	0.0226	<0.0000800	<0.00200	0.00543	<0.000500	2.23	0.576	2.8

TABLE 4
APPENDIX IV GROUNDWATER ANALYTICAL DATA
MLSES 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-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
	05/17/23	<0.000800	<0.00200	0.125	0.000538 J	<0.000300	0.00360 J	0.0349	<0.100	<0.000300	0.156	<0.0000800	<0.00200	<0.00200	<0.000500	0.472	1.38	1.85
	5/17/23 DUP	<0.000800	<0.00200	0.129	0.000525 J	<0.000300	0.00381 J	0.0356	<0.100	<0.000300	0.16	<0.0000800	<0.00200	<0.00200	<0.000500	0.411	0.991	1.4
	08/14/23	<0.000800	<0.00200	0.157	0.000863 J	<0.000300	0.0157	0.0377	<0.100	0.00128	0.153	<0.0000800	<0.00200	<0.00200	<0.000500	0.314	1.69	2.00
	8/14/23 DUP	<0.000800	<0.00200	0.135	0.000777 J	<0.000300	0.0114	0.0368	<0.100	0.000999 J	0.153	<0.0000800	<0.00200	<0.00200	<0.000500	0.402	0.785	1.187
	04/24/24	<0.000800	<0.00200	0.126	0.000590 J	<0.000300	0.00290 J	0.0379	<0.100	0.000363 J	0.144	<0.0000800	<0.00200	<0.00200	<0.000500	0.747	0.443 J	1.19
	07/30/24	<0.000800	<0.00200	0.131	0.000561 J	<0.000300	<0.00200	0.038	<0.100	<0.000300	0.137	<0.0000800	<0.00200	<0.00200	<0.000500	0.512	0.274 J	0.786
	7/30/2024 DUP	<0.000800	<0.00200	0.13	0.000716 J	<0.000300	<0.00200	0.0376	<0.100	<0.000300	0.139	<0.0000800	<0.00200	<0.00200	<0.000500	0.585	1.12	1.7
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
	05/17/23	<0.000800	<0.00200	0.0132	0.00689	0.000786 J	<0.00200	0.175	<0.100	0.000770 J	0.194	<0.0000800	<0.00200	<0.00200	<0.000500	0.189 J	0.563	0.753
	08/14/23	<0.000800	<0.00200	0.0134	0.0074	0.000842 J	<0.00200	0.172	<0.100	0.00124	0.21	<0.0000800	<0.00200	<0.00200	<0.000500	<0.147	<0.368	<0.515
	04/24/24	<0.000800	<0.00200	0.0141	0.00549	0.00192	<0.00200	0.198	<0.100	0.000890 J	0.184	<0.0000800	<0.00200	<0.00200	<0.000500	1.07	0.625 J	1.69
	07/29/24	<0.000800	<0.00200	0.0218	0.00546	0.00178	<0.00200	0.197	<0.100	0.000730 J	0.201	<0.0000800	<0.00200	0.00410 J	<0.000500	0.188	<0.501	<0.531

TABLE 4
APPENDIX IV GROUNDWATER ANALYTICAL DATA
MLSES 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-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	0.0051	0.0142	0.0165	0.000874 J	0.00201 J	0.271	0.819	0.0025	0.195	<0.0000800	<0.00200	0.00558	<0.000500	0.253 J	1.00	1.26
	05/17/23	<0.000800	<0.00200	0.0299	0.0052	0.000693 J	<0.00200	0.134	<0.100	0.000637 J	0.147	<0.0000800	<0.00200	<0.00200	<0.000500	0.581	1.23	1.81
	08/14/23	<0.000800	<0.00200	0.0122	0.00492	0.000540 J	<0.00200	0.115	<0.100	0.000886	0.135	<0.0000800	<0.00200	<0.00200	<0.000500	0.487	0.671	1.158
	04/24/24	<0.000800	<0.00200	0.0314	0.00398	0.0014	<0.00200	0.142	<0.100	0.000728 J	0.134	<0.0000800	<0.00200	<0.00200	<0.000500	0.371 J	0.66 J	1.03 J
	07/29/24	<0.000800	<0.00200	0.0189	0.00585	0.00147	<0.00200	0.21	<0.100	0.00119	0.193	<0.0000800	<0.00200	0.00447 J	<0.000500	0.275	0.629	0.904
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
	05/17/23	<0.000800	0.00917	0.0141	0.0386	<0.000300	0.00210 J	0.62	0.874	<0.000300	0.248	<0.0000800	<0.00200	0.0143	<0.000500	0.35	2.12	2.47
	08/14/23	<0.000800	<0.00200	0.0122	0.00585	0.000556 J	<0.00200	0.136	<0.100	0.001	0.16	<0.0000800	<0.00200	<0.00200	<0.000500	0.348	1.18	1.528
	04/24/24	<0.000800	<0.00200	0.0213	0.00489	0.0018	<0.00200	0.176	<0.100	0.000828 J	0.164	<0.0000800	<0.00200	<0.00200	<0.000500	0.589	1.54	2.13
	07/29/24	<0.000800	<0.00200	0.0302	0.00417	0.00125	<0.00200	0.164	<0.100	0.000971 J	0.151	<0.0000800	<0.00200	0.00365 J	<0.000500	0.561	0.496 J	1.06

TABLE 4
APPENDIX IV GROUNDWATER ANALYTICAL DATA
MLSES 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	0.094	<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	0.67	0.000938 J	0.0943	<0.0000800	<0.00200	0.00230 J	<0.000500	<0.0825	1.72	1.72
	9/20/22 DUP	<0.000800	<0.00200	0.017	0.00615	0.000362 J	<0.00200	0.176	0.638	0.000711 J	0.0949	<0.0000800	<0.00200	<0.00200	<0.000500	<0.120	0.398 J	0.418 J
	05/17/23	<0.000800	<0.00200	0.0162	0.00676	0.000349 J	<0.00200	0.174	0.502	0.000414 J	0.0969	<0.0000800	<0.00200	<0.00200	<0.000500	<0.158	<0.300	0.302 J
	08/14/23	<0.000800	<0.00200	0.0124	0.00501	0.000516 J	<0.00200	0.114	<0.100	0.000848 J	0.135	<0.0000800	<0.00200	<0.00200	<0.000500	0.143 J	1.23	1.373
	04/24/24	<0.000800	<0.00200	0.0946	0.000516 J	<0.000300	<0.00200	0.029	<0.100	0.000460 J	0.0987	<0.0000800	<0.00200	<0.00200	<0.000500	1.04	0.497	1.53
	08/06/24	<0.000800	<0.00200	0.0172	0.0054	0.00163	<0.00200	0.208	<0.100	0.0012	0.182	<0.0000800	<0.00200	<0.00200	<0.000500	0.315 J	1.34	1.65

Notes:
1. Abbreviations: mg/L - milligrams per liter; pCi/L - picocuries per liter.
2. ^ - Sum of Ra 226 and Ra 228 concentrations.
3. J - concentration is below method quantitation limit; result is an estimate.
4. NA = Not analyzed.

TABLE 5
GROUNDWATER ELEVATION SUMMARY
ASH POND AREA
MARTIN LAKE STEAM ELECTRIC STATION

Well ID	TOC Elevation (ft amsl)	Date	Depth to Water (ft bgs)	Water Elevation (ft amsl)
H-26	323.70	10/21/15	16.29	307.41
		12/14/15	15.57	308.13
		02/23/16	14.96	308.74
		04/05/16	15.34	308.36
		06/06/16	14.33	309.37
		08/09/16	15.30	308.40
		10/17/16	15.79	307.91
		12/11/16	17.54	306.16
		09/21/17	16.04	307.66
		06/12/18	16.04	307.66
		09/07/18	16.89	306.81
		05/14/19	13.21	310.49
		09/10/19	15.73	307.97
		05/13/20	10.06	313.64
		10/06/20	15.17	308.53
		06/04/21	14.03	309.67
		10/04/21	15.31	308.39
		05/25/22	15.74	307.96
		09/20/22	16.22	307.48
		05/17/23	15.02	308.68
		08/14/23	15.46	308.24
		04/24/24	15.34	308.36
		07/29/24	14.39	309.31
H-27	330.42	10/21/15	23.66	306.76
		12/14/15	22.49	307.93
		02/23/16	21.95	308.47
		04/05/16	22.54	307.88
		06/06/16	21.70	308.72
		08/09/16	22.62	307.80
		10/17/16	23.12	307.30
		12/11/16	25.42	305.00
		09/21/17	23.39	307.03
		06/12/18	23.21	307.21
		09/07/18	24.31	306.11
		05/14/19	22.02	308.40
		09/10/19	22.99	307.43
		05/13/20	22.29	308.13
		10/06/20	25.69	304.73
		06/04/21	23.41	307.01
		10/04/21	24.78	305.64
		05/25/22	23.42	307.00
		09/20/22	25.17	305.25
		05/17/23	22.59	307.83
		08/14/23	24.53	305.89
		04/24/24	24.31	306.11
		07/29/24	24.77	305.65

TABLE 5
GROUNDWATER ELEVATION SUMMARY
ASH POND AREA
MARTIN LAKE STEAM ELECTRIC STATION

Well ID	TOC Elevation (ft amsl)	Date	Depth to Water (ft bgs)	Water Elevation (ft amsl)
H-28	316.82	10/21/15	12.96	303.86
		12/14/15	10.41	306.41
		02/23/16	9.86	306.96
		04/05/16	10.46	306.36
		06/06/16	9.24	307.58
		08/09/16	11.81	305.01
		10/17/16	12.23	304.59
		12/11/16	14.52	302.30
		09/21/17	12.27	304.55
		06/12/18	11.41	305.41
		09/07/18	13.48	303.34
		05/14/19	7.12	309.70
		09/10/19	12.57	304.25
		05/13/20	9.77	307.05
		10/06/20	12.03	304.79
		06/04/21	9.53	307.29
		10/04/21	11.71	305.11
		05/25/22	10.74	306.08
		09/20/22	13.04	303.78
		05/17/23	10.22	306.60
		08/14/23	12.43	304.39
		04/24/24	10.01	306.81
		07/29/24	10.67	306.15
H-29	329.26	10/21/15	24.51	304.75
		12/14/15	22.57	306.69
		02/23/16	22.02	307.24
		04/05/16	22.73	306.53
		06/06/16	22.09	307.17
		08/09/16	23.38	305.88
		10/17/16	23.59	305.67
		12/11/16	25.89	303.37
		09/21/17	23.81	305.45
		06/12/18	24.26	305.00
		09/07/18	26.21	303.05
		05/14/19	22.61	306.65
		09/10/19	24.62	304.64
		05/13/20	23.47	305.79
		10/06/20	25.41	303.85
		06/04/21	23.16	306.10
		10/04/21	25.26	304.00
		05/25/22	22.96	306.30
		09/20/22	25.27	303.99
		05/17/23	22.71	306.55
		08/14/23	24.73	304.53
		04/24/24	22.57	306.69
		07/29/24	22.41	306.85

TABLE 5
GROUNDWATER ELEVATION SUMMARY
ASH POND AREA
MARTIN LAKE STEAM ELECTRIC STATION

Well ID	TOC Elevation (ft amsl)	Date	Depth to Water (ft bgs)	Water Elevation (ft amsl)
H-31	329.26	10/20/15	26.44	302.82
		12/14/15	22.99	306.27
		02/23/16	22.79	306.47
		04/05/16	23.34	305.92
		06/06/16	22.62	306.64
		08/09/16	25.15	304.11
		10/17/16	25.26	304.00
		12/11/16	26.88	302.38
		09/21/17	25.33	303.93
		06/12/18	24.48	304.78
		09/07/18	26.87	302.39
		09/10/19	25.64	303.62
		05/14/19	22.73	306.53
		05/13/20	23.02	306.24
		10/06/20	25.29	303.97
		06/04/21	23.06	306.20
		10/04/21	25.09	304.17
		05/25/22	23.61	305.65
		09/20/22	26.26	303.00
		05/17/23	22.96	306.30
		08/14/23	25.68	303.58
		04/24/24	23.32	305.94
		07/29/24	23.46	305.80
H-32	329.85	10/22/15	26.11	303.74
		12/14/15	23.47	306.38
		02/23/16	23.05	306.80
		04/05/16	23.72	306.13
		06/06/16	23.11	306.74
		08/09/16	24.84	305.01
		10/17/16	25.03	304.82
		12/11/16	26.94	302.91
		09/21/17	25.18	304.67
		06/12/18	24.41	305.44
		09/07/18	26.42	303.43
		05/14/19	23.16	306.69
		09/10/19	25.47	304.38
		05/13/20	23.36	306.49
		10/06/20	25.18	304.67
		06/04/21	23.13	306.72
		10/04/21	24.77	305.08
		05/25/22	23.57	306.28
		09/20/22	26.03	303.82
		05/17/23	23.21	306.64
		08/14/23	25.42	304.43
		04/24/24	23.39	306.46
		07/29/24	23.41	306.44

TABLE 5
GROUNDWATER ELEVATION SUMMARY
ASH POND AREA
MARTIN LAKE STEAM ELECTRIC STATION

Well ID	TOC Elevation (ft amsl)	Date	Depth to Water (ft bgs)	Water Elevation (ft amsl)
H-33	323.85	10/22/15	15.91	307.94
		12/14/15	14.78	309.07
		02/23/16	14.79	309.06
		04/05/16	14.82	309.03
		06/06/16	13.81	310.04
		08/09/16	15.00	308.85
		10/17/16	15.34	308.51
		12/11/16	17.52	306.33
		9/21/17	15.54	308.31
		06/12/18	16.39	307.46
		09/07/18	16.26	307.59
		05/14/19	13.42	310.43
		09/10/19	15.28	308.57
		05/13/20	9.72	314.13
		10/06/20	15.44	308.41
		06/04/21	13.47	310.38
		10/04/21	14.97	308.88
		05/25/22	14.74	309.11
		09/20/22	15.78	308.07
		05/17/23	14.59	309.26
		08/14/23	15.11	308.74
		04/24/24	14.47	309.38
		07/29/24	13.77	310.08

Notes:
1. Abbreviations: ft - feet; amsl - above mean sea level; bgs - below ground surface

APPENDIX A

LABORATORY ANALYTICAL REPORTS

June 10, 2024

Will Vienne
BBA Engineering
165 N. Lampasas St.
Bertram, TX 78605
TEL: (512) 355-9198
FAX:

Order No.: 2404281

RE: VISTRA-MLSES ASH PONDS

Dear Will Vienne:

DHL Analytical, Inc. received 8 sample(s) on 4/26/2024 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 - TX-C24-00120

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

PAGE 1 OF 1

CLIENT: BBA
ADDRESS: 165 N. LAMPASAS ST BERTRAM, TX
PHONE: 512-355-9198 EMAIL:
DATA REPORTED TO: WILL VIENNE
ADDITIONA_ REPORT COPIES TO:

DATE: 4-25-24
PO#: 23643V-16

LAB USE ONLY
DHL WORKORDER #: 2404281

PROJECT LOCATION OR NAME: VISTRA-MLSES ASH PONDS
CLIENT PROJECT # 23643V-16 COLLECTOR: JOHN BRAYTON

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

W=WATER L=LIQUID S=SOLID 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 ☐	H_3PO_4 ☐	HNO_3	H_2SO_4	NaOH ☐	Zn Acetate ☐	ICE ☒	UNPRESERVED ☒	ANALYSES	APPENDIX III	APPENDIX IV	FIELD NOTES
H-28	01	4-24-24	1040	W	P	4			X				X			X	X	
H-29	02	"	1130	W	P	4			X				X			X	X	
H-33	03	"	1220	W	P	4			X				X			X	X	
DUP-1	04	"	1220	W	P	4			X				X			X	X	
H-32	05	"	1315	W	P	4			X				X			X	X	
H-31	06	"	1410	W	P	4			X				X			X	X	
H-26	07	"	1510	W	P	4			X				X			X	X	
H-27	08	"	1600	W	P	4			X				X			X	X	

Relinquished By: (Sign) DATE/TIME 4-25-24 1600 Received by: Fedex
Relinquished By: (Sign) DATE/TIME 4/26/24 0800 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 _____ ☐

LAB USE ONLY **THERMO #:**
RECEIVING TEMP (°C): 2.6°C, 1.1°C 78
IF >6°C, ARE SAMPLES ON ICE AND JUST COLLECTED? YES / NO
CUSTODY SEALS ON ICE CHEST: ☐ BROKEN ☑ INTACT ☐ NOT USED
CARRIER: ☐ LSO ☑ FEDEX ☐ UPS ☐ COURIER ☐ HAND DELIVERED

☐ **DHL DISPOSAL @ $10.00 each**

DHL COC REV 4 | MAR 2023

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:BSMA (512) 355-9198
CRAIG BENNETT
BULLOCK, BENNETT & ASSOCIATES
165 N. LAMPASAS STREET

BERTRAM, TX 78605
UNITED STATES US

SHIP DATE: 25APR24
ACTWGT: 30.00 LB
CAD: 113203857/INET4535
DIMS: 23x16x16 IN

BILL SENDER

TO **DHL**
PO 23643V-16
2300 DOUBLE CREEK DR

ROUND ROCK TX 78664
(512) 388-8222 REF:
INV:
PO: 23643V-16 DEPT:

583J6/0FEC/9AE3

FedEx
Express

E

J242024032601uv

FRI – 26 APR AA
PRIORITY OVERNIGHT

FedEx
TRK# 7761 0924 1661
0201

A8 BSMA

78664
TX-US AUS

#1130297-436 ... EXP 11/24

#6161559 04/25 583J6/0FEC/9AE3

DHL
ANALYTICAL

CUSTODY SEAL
DATE 4.25.24
SIGNATURE

512
10:30
04.26

ORIGIN ID:BSMA (512) 355-9198
CRAIG BENNETT
BULLOCK, BENNETT & ASSOCIATES
165 N. LAMPASAS STREET

BERTRAM, TX 78605
UNITED STATES US

SHIP DATE: 25APR24
ACTWGT: 30.00 LB
CAD: 113203857/INET4535
DIMS: 23x16x16 IN

BILL SENDER

TO **DHL**
PO 23643V-16
2300 DOUBLE CREEK DR

ROUND ROCK TX 78664
(512) 388-8222 REF:
INV:
PO: 23643V-16 DEPT:

583J6/0FEC/9AE3

FedEx Express

E

J242024032601uv

FedEx
TRK# 7761 0904 7171
0201

A8 BSMA

FRI - 26 APR AA
PRIORITY OVERNIGHT

78664
TX-US AUS

#6161559 04/25 583J6/0FEC/9AE3

RT 512
FZ
C
4171
04/26
10:30

Martin Lake Pow

DHL ANALYTICAL

CUSTODY SEAL

DATE 4.25.24

SIGNATURE [signature]

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name: **BBA Engineering** Date Received: **4/26/2024**

Work Order Number: **2404281** Received by: **KAO**

Checklist completed by: _____ 4/26/2024 Reviewed by: (NL) 4/26/2024
Signature | Date | 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 ☐	
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
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Cooler #	1	2
Temp °C	2.6	1.1
Seal Intact	Y	Y

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: VISTRA-MLSES ASH PONDS	**LRC Date:** 6/10/24
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2404281
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: VISTRA-MLSES ASH PONDS	**LRC Date:** 6/10/24
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2404281
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			**S9-01**
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 May 30 - June 2, 2023. 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

Name: Dr. Derhsing Luu
Official Title: Technical Director

Signature

6/10/2024
Date

DHL Analytical, Inc. **Date:** *10-Jun-24*

CLIENT: BBA Engineering
Project: VISTRA-MLSES ASH PONDS
Lab Order: 2404281

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 SM7500 Ra B M. Analyzed at Pace Analytical.

Exception Report R1-01

The samples were received and log-in performed on 4/26/24. 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 4/30/24 the matrix spike and matrix spike duplicate recoveries were out of control limits for three analytes. 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 these analytes. No further corrective actions were taken.

Exception Report S9-01

For Metals analysis performed on 4/30/24 the RPD for the serial dilution was above control limits for Lead. This is flagged accordingly in the QC summary report. The PDS was within control limits for this analyte. No further corrective actions were taken.

For Metals analysis performed on 4/30/24 the PDS recovery was out of control limits for Calcium. This is flagged accordingly. The serial dilution was within control limits for this analyte. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *10-Jun-24*

CLIENT: BBA Engineering
Project: VISTRA-MLSES ASH PONDS
Lab Order: 2404281

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2404281-01	H-28		04/24/24 10:40 AM	04/26/2024
2404281-02	H-29		04/24/24 11:30 AM	04/26/2024
2404281-03	H-33		04/24/24 12:20 PM	04/26/2024
2404281-04	DUP-1		04/24/24 12:20 PM	04/26/2024
2404281-05	H-32		04/24/24 01:15 PM	04/26/2024
2404281-06	H-31		04/24/24 02:10 PM	04/26/2024
2404281-07	H-26		04/24/24 03:10 PM	04/26/2024
2404281-08	H-27		04/24/24 04:00 PM	04/26/2024

Lab Order: 2404281
Client: BBA Engineering
Project: VISTRA-MLSES ASH PONDS

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2404281-01A	H-28	04/24/24 10:40 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-28	04/24/24 10:40 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-28	04/24/24 10:40 AM	Aqueous	SW7470A	Mercury Aq Prep	04/29/24 01:18 PM	115190
2404281-01B	H-28	04/24/24 10:40 AM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-28	04/24/24 10:40 AM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-28	04/24/24 10:40 AM	Aqueous	M2540C	TDS Preparation	04/29/24 01:46 PM	115193
2404281-02A	H-29	04/24/24 11:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-29	04/24/24 11:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-29	04/24/24 11:30 AM	Aqueous	SW7470A	Mercury Aq Prep	04/29/24 01:18 PM	115190
2404281-02B	H-29	04/24/24 11:30 AM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-29	04/24/24 11:30 AM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-29	04/24/24 11:30 AM	Aqueous	M2540C	TDS Preparation	04/29/24 01:46 PM	115193
2404281-03A	H-33	04/24/24 12:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-33	04/24/24 12:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-33	04/24/24 12:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-33	04/24/24 12:20 PM	Aqueous	SW7470A	Mercury Aq Prep	04/29/24 01:18 PM	115190
2404281-03B	H-33	04/24/24 12:20 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-33	04/24/24 12:20 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-33	04/24/24 12:20 PM	Aqueous	M2540C	TDS Preparation	04/29/24 01:46 PM	115193
2404281-04A	DUP-1	04/24/24 12:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	DUP-1	04/24/24 12:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	DUP-1	04/24/24 12:20 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	DUP-1	04/24/24 12:20 PM	Aqueous	SW7470A	Mercury Aq Prep	04/29/24 01:18 PM	115190
2404281-04B	DUP-1	04/24/24 12:20 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	DUP-1	04/24/24 12:20 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	DUP-1	04/24/24 12:20 PM	Aqueous	M2540C	TDS Preparation	04/29/24 01:46 PM	115193
2404281-05A	H-32	04/24/24 01:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-32	04/24/24 01:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199

Lab Order: 2404281
Client: BBA Engineering
Project: VISTRA-MLSES ASH PONDS

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2404281-05A	H-32	04/24/24 01:15 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-32	04/24/24 01:15 PM	Aqueous	SW7470A	Mercury Aq Prep	04/29/24 01:18 PM	115190
2404281-05B	H-32	04/24/24 01:15 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-32	04/24/24 01:15 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-32	04/24/24 01:15 PM	Aqueous	M2540C	TDS Preparation	04/29/24 01:46 PM	115193
2404281-06A	H-31	04/24/24 02:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-31	04/24/24 02:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-31	04/24/24 02:10 PM	Aqueous	SW7470A	Mercury Aq Prep	04/29/24 01:18 PM	115190
2404281-06B	H-31	04/24/24 02:10 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-31	04/24/24 02:10 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-31	04/24/24 02:10 PM	Aqueous	M2540C	TDS Preparation	04/29/24 01:46 PM	115193
2404281-07A	H-26	04/24/24 03:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-26	04/24/24 03:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-26	04/24/24 03:10 PM	Aqueous	SW7470A	Mercury Aq Prep	04/29/24 01:18 PM	115190
2404281-07B	H-26	04/24/24 03:10 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-26	04/24/24 03:10 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-26	04/24/24 03:10 PM	Aqueous	M2540C	TDS Preparation	04/29/24 01:46 PM	115193
2404281-08A	H-27	04/24/24 04:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-27	04/24/24 04:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	04/30/24 07:09 AM	115199
	H-27	04/24/24 04:00 PM	Aqueous	SW7470A	Mercury Aq Prep	04/29/24 01:18 PM	115190
2404281-08B	H-27	04/24/24 04:00 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-27	04/24/24 04:00 PM	Aqueous	E300	Anion Preparation	04/26/24 09:38 AM	115163
	H-27	04/24/24 04:00 PM	Aqueous	M2540C	TDS Preparation	04/29/24 01:46 PM	115193

Lab Order: 2404281
Client: BBA Engineering
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2404281-01A	H-28	Aqueous	SW7470A	Mercury Total: Aqueous	115190	1	04/30/24 09:36 AM	CETAC2_HG_240430B
	H-28	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	20	04/30/24 02:34 PM	ICP-MS4_240430C
	H-28	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:04 PM	ICP-MS5_240430B
2404281-01B	H-28	Aqueous	E300	Anions by IC method - Water	115163	10	04/26/24 08:34 PM	IC4_240426A
	H-28	Aqueous	E300	Anions by IC method - Water	115163	1	04/27/24 12:41 AM	IC4_240426A
	H-28	Aqueous	M2540C	Total Dissolved Solids	115193	1	04/29/24 04:45 PM	WC_240429B
2404281-02A	H-29	Aqueous	SW7470A	Mercury Total: Aqueous	115190	1	04/30/24 09:38 AM	CETAC2_HG_240430B
	H-29	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	20	04/30/24 02:36 PM	ICP-MS4_240430C
	H-29	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:06 PM	ICP-MS5_240430B
2404281-02B	H-29	Aqueous	E300	Anions by IC method - Water	115163	10	04/26/24 08:53 PM	IC4_240426A
	H-29	Aqueous	E300	Anions by IC method - Water	115163	1	04/27/24 01:00 AM	IC4_240426A
	H-29	Aqueous	M2540C	Total Dissolved Solids	115193	1	04/29/24 04:45 PM	WC_240429B
2404281-03A	H-33	Aqueous	SW7470A	Mercury Total: Aqueous	115190	1	04/30/24 09:41 AM	CETAC2_HG_240430B
	H-33	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:09 PM	ICP-MS5_240430B
	H-33	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	5	04/30/24 03:23 PM	ICP-MS5_240430B
	H-33	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:38 PM	ICP-MS4_240430C
2404281-03B	H-33	Aqueous	E300	Anions by IC method - Water	115163	10	04/26/24 09:12 PM	IC4_240426A
	H-33	Aqueous	E300	Anions by IC method - Water	115163	1	04/27/24 01:19 AM	IC4_240426A
	H-33	Aqueous	M2540C	Total Dissolved Solids	115193	1	04/29/24 04:45 PM	WC_240429B
2404281-04A	DUP-1	Aqueous	SW7470A	Mercury Total: Aqueous	115190	1	04/30/24 09:43 AM	CETAC2_HG_240430B
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:40 PM	ICP-MS4_240430C
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:11 PM	ICP-MS5_240430B
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	5	04/30/24 03:26 PM	ICP-MS5_240430B
2404281-04B	DUP-1	Aqueous	E300	Anions by IC method - Water	115163	1	04/27/24 01:38 AM	IC4_240426A
	DUP-1	Aqueous	E300	Anions by IC method - Water	115163	10	04/26/24 09:31 PM	IC4_240426A
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	115193	1	04/29/24 04:45 PM	WC_240429B

Lab Order: 2404281
Client: BBA Engineering
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2404281-05A	H-32	Aqueous	SW7470A	Mercury Total: Aqueous	115190	1	04/30/24 09:45 AM	CETAC2_HG_240430B
	H-32	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:42 PM	ICP-MS4_240430C
	H-32	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:14 PM	ICP-MS5_240430B
	H-32	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	5	04/30/24 03:28 PM	ICP-MS5_240430B
2404281-05B	H-32	Aqueous	E300	Anions by IC method - Water	115163	10	04/26/24 11:06 PM	IC4_240426A
	H-32	Aqueous	E300	Anions by IC method - Water	115163	1	04/27/24 01:57 AM	IC4_240426A
	H-32	Aqueous	M2540C	Total Dissolved Solids	115193	1	04/29/24 04:45 PM	WC_240429B
2404281-06A	H-31	Aqueous	SW7470A	Mercury Total: Aqueous	115190	1	04/30/24 09:48 AM	CETAC2_HG_240430B
	H-31	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	20	04/30/24 02:44 PM	ICP-MS4_240430C
	H-31	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:16 PM	ICP-MS5_240430B
2404281-06B	H-31	Aqueous	E300	Anions by IC method - Water	115163	1	04/27/24 03:32 AM	IC4_240426A
	H-31	Aqueous	E300	Anions by IC method - Water	115163	10	04/26/24 11:25 PM	IC4_240426A
	H-31	Aqueous	M2540C	Total Dissolved Solids	115193	1	04/29/24 04:45 PM	WC_240429B
2404281-07A	H-26	Aqueous	SW7470A	Mercury Total: Aqueous	115190	1	04/30/24 09:59 AM	CETAC2_HG_240430B
	H-26	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:46 PM	ICP-MS4_240430C
	H-26	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:19 PM	ICP-MS5_240430B
2404281-07B	H-26	Aqueous	E300	Anions by IC method - Water	115163	10	04/26/24 11:44 PM	IC4_240426A
	H-26	Aqueous	E300	Anions by IC method - Water	115163	1	04/27/24 03:51 AM	IC4_240426A
	H-26	Aqueous	M2540C	Total Dissolved Solids	115193	1	04/29/24 04:45 PM	WC_240429B
2404281-08A	H-27	Aqueous	SW7470A	Mercury Total: Aqueous	115190	1	04/30/24 10:01 AM	CETAC2_HG_240430B
	H-27	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:48 PM	ICP-MS4_240430C
	H-27	Aqueous	SW6020B	Total Metals: ICP-MS - Water	115199	1	04/30/24 02:22 PM	ICP-MS5_240430B
2404281-08B	H-27	Aqueous	E300	Anions by IC method - Water	115163	10	04/27/24 12:03 AM	IC4_240426A
	H-27	Aqueous	E300	Anions by IC method - Water	115163	1	04/27/24 04:10 AM	IC4_240426A
	H-27	Aqueous	M2540C	Total Dissolved Solids	115193	1	04/29/24 04:45 PM	WC_240429B

DHL Analytical, Inc.

Date: *10-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-28
Project:	VISTRA-MLSES ASH PONDS	**Lab ID:**	2404281-01
Project No:	23643V-16	**Collection Date:**	04/24/24 10:40 AM
Lab Order:	2404281	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/30/24 02:04 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:04 PM
Barium	0.0141	0.00300	0.0100		mg/L	1	04/30/24 02:04 PM
Beryllium	0.00549	0.000300	0.00100		mg/L	1	04/30/24 02:04 PM
Boron	6.91	0.200	0.600		mg/L	20	04/30/24 02:34 PM
Cadmium	0.00192	0.000300	0.00100		mg/L	1	04/30/24 02:04 PM
Calcium	88.9	2.00	6.00		mg/L	20	04/30/24 02:34 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:04 PM
Cobalt	0.198	0.00300	0.00500		mg/L	1	04/30/24 02:04 PM
Lead	0.000890	0.000300	0.00100	J	mg/L	1	04/30/24 02:04 PM
Lithium	0.184	0.00500	0.0100		mg/L	1	04/30/24 02:04 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:04 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:04 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/30/24 02:04 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/30/24 09:36 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	110	3.00	10.0		mg/L	10	04/26/24 08:34 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	04/27/24 12:41 AM
Sulfate	791	10.0	30.0		mg/L	10	04/26/24 08:34 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1500	50.0	50.0		mg/L	1	04/29/24 04:45 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: *10-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-29
Project:	VISTRA-MLSES ASH PONDS	**Lab ID:**	2404281-02
Project No:	23643V-16	**Collection Date:**	04/24/24 11:30 AM
Lab Order:	2404281	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/30/24 02:06 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:06 PM
Barium	0.0314	0.00300	0.0100		mg/L	1	04/30/24 02:06 PM
Beryllium	0.00398	0.000300	0.00100		mg/L	1	04/30/24 02:06 PM
Boron	4.98	0.200	0.600		mg/L	20	04/30/24 02:36 PM
Cadmium	0.00140	0.000300	0.00100		mg/L	1	04/30/24 02:06 PM
Calcium	65.4	2.00	6.00		mg/L	20	04/30/24 02:36 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:06 PM
Cobalt	0.142	0.00300	0.00500		mg/L	1	04/30/24 02:06 PM
Lead	0.000728	0.000300	0.00100	J	mg/L	1	04/30/24 02:06 PM
Lithium	0.134	0.00500	0.0100		mg/L	1	04/30/24 02:06 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:06 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:06 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/30/24 02:06 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/30/24 09:38 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	100	3.00	10.0		mg/L	10	04/26/24 08:53 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	04/27/24 01:00 AM
Sulfate	682	10.0	30.0		mg/L	10	04/26/24 08:53 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1330	50.0	50.0		mg/L	1	04/29/24 04:45 PM

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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: *10-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-33
Project:	VISTRA-MLSES ASH PONDS	**Lab ID:**	2404281-03
Project No:	23643V-16	**Collection Date:**	04/24/24 12:20 PM
Lab Order:	2404281	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/30/24 02:09 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:09 PM
Barium	0.126	0.00300	0.0100		mg/L	1	04/30/24 02:09 PM
Beryllium	0.000590	0.000300	0.00100	J	mg/L	1	04/30/24 02:09 PM
Boron	0.0564	0.0100	0.0300		mg/L	1	04/30/24 02:38 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/30/24 02:09 PM
Calcium	41.1	0.500	1.50		mg/L	5	04/30/24 03:23 PM
Chromium	0.00290	0.00200	0.00500	J	mg/L	1	04/30/24 02:09 PM
Cobalt	0.0379	0.00300	0.00500		mg/L	1	04/30/24 02:09 PM
Lead	0.000363	0.000300	0.00100	J	mg/L	1	04/30/24 02:09 PM
Lithium	0.144	0.00500	0.0100		mg/L	1	04/30/24 02:09 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:09 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:09 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/30/24 02:09 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/30/24 09:41 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	102	3.00	10.0		mg/L	10	04/26/24 09:12 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	04/27/24 01:19 AM
Sulfate	103	10.0	30.0		mg/L	10	04/26/24 09:12 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	473	10.0	10.0		mg/L	1	04/29/24 04:45 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: *10-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	DUP-1
Project:	VISTRA-MLSES ASH PONDS	**Lab ID:**	2404281-04
Project No:	23643V-16	**Collection Date:**	04/24/24 12:20 PM
Lab Order:	2404281	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/30/24 02:11 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:11 PM
Barium	0.122	0.00300	0.0100		mg/L	1	04/30/24 02:11 PM
Beryllium	0.000619	0.000300	0.00100	J	mg/L	1	04/30/24 02:11 PM
Boron	0.0538	0.0100	0.0300		mg/L	1	04/30/24 02:40 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/30/24 02:11 PM
Calcium	38.8	0.500	1.50		mg/L	5	04/30/24 03:26 PM
Chromium	0.00337	0.00200	0.00500	J	mg/L	1	04/30/24 02:11 PM
Cobalt	0.0382	0.00300	0.00500		mg/L	1	04/30/24 02:11 PM
Lead	0.000432	0.000300	0.00100	J	mg/L	1	04/30/24 02:11 PM
Lithium	0.142	0.00500	0.0100		mg/L	1	04/30/24 02:11 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:11 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:11 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/30/24 02:11 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/30/24 09:43 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	103	3.00	10.0		mg/L	10	04/26/24 09:31 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	04/27/24 01:38 AM
Sulfate	101	10.0	30.0		mg/L	10	04/26/24 09:31 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	475	10.0	10.0		mg/L	1	04/29/24 04:45 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: *10-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-32
Project:	VISTRA-MLSES ASH PONDS	**Lab ID:**	2404281-05
Project No:	23643V-16	**Collection Date:**	04/24/24 01:15 PM
Lab Order:	2404281	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/30/24 02:14 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:14 PM
Barium	0.0946	0.00300	0.0100		mg/L	1	04/30/24 02:14 PM
Beryllium	0.000516	0.000300	0.00100	J	mg/L	1	04/30/24 02:14 PM
Boron	0.0498	0.0100	0.0300		mg/L	1	04/30/24 02:42 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/30/24 02:14 PM
Calcium	25.5	0.500	1.50		mg/L	5	04/30/24 03:28 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:14 PM
Cobalt	0.0290	0.00300	0.00500		mg/L	1	04/30/24 02:14 PM
Lead	0.000460	0.000300	0.00100	J	mg/L	1	04/30/24 02:14 PM
Lithium	0.0987	0.00500	0.0100		mg/L	1	04/30/24 02:14 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:14 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:14 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/30/24 02:14 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/30/24 09:45 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	87.2	3.00	10.0		mg/L	10	04/26/24 11:06 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	04/27/24 01:57 AM
Sulfate	79.8	10.0	30.0		mg/L	10	04/26/24 11:06 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	579	10.0	10.0		mg/L	1	04/29/24 04:45 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
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: *10-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-31
Project:	VISTRA-MLSES ASH PONDS	**Lab ID:**	2404281-06
Project No:	23643V-16	**Collection Date:**	04/24/24 02:10 PM
Lab Order:	2404281	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/30/24 02:16 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:16 PM
Barium	0.0213	0.00300	0.0100		mg/L	1	04/30/24 02:16 PM
Beryllium	0.00489	0.000300	0.00100		mg/L	1	04/30/24 02:16 PM
Boron	6.17	0.200	0.600		mg/L	20	04/30/24 02:44 PM
Cadmium	0.00180	0.000300	0.00100		mg/L	1	04/30/24 02:16 PM
Calcium	80.5	2.00	6.00		mg/L	20	04/30/24 02:44 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:16 PM
Cobalt	0.176	0.00300	0.00500		mg/L	1	04/30/24 02:16 PM
Lead	0.000828	0.000300	0.00100	J	mg/L	1	04/30/24 02:16 PM
Lithium	0.164	0.00500	0.0100		mg/L	1	04/30/24 02:16 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:16 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:16 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/30/24 02:16 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	04/30/24 09:48 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	99.9	3.00	10.0		mg/L	10	04/26/24 11:25 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	04/27/24 03:32 AM
Sulfate	687	10.0	30.0		mg/L	10	04/26/24 11:25 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1330	50.0	50.0		mg/L	1	04/29/24 04:45 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: *10-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-26
Project:	VISTRA-MLSES ASH PONDS	**Lab ID:**	2404281-07
Project No:	23643V-16	**Collection Date:**	04/24/24 03:10 PM
Lab Order:	2404281	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/30/24 02:19 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:19 PM
Barium	0.0982	0.00300	0.0100		mg/L	1	04/30/24 02:19 PM
Beryllium	0.00123	0.000300	0.00100		mg/L	1	04/30/24 02:19 PM
Boron	0.370	0.0100	0.0300		mg/L	1	04/30/24 02:46 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/30/24 02:19 PM
Calcium	16.6	0.100	0.300		mg/L	1	04/30/24 02:19 PM
Chromium	0.00470	0.00200	0.00500	J	mg/L	1	04/30/24 02:19 PM
Cobalt	0.0251	0.00300	0.00500		mg/L	1	04/30/24 02:19 PM
Lead	0.000939	0.000300	0.00100	J	mg/L	1	04/30/24 02:19 PM
Lithium	0.0228	0.00500	0.0100		mg/L	1	04/30/24 02:19 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:19 PM
Selenium	0.0172	0.00200	0.00500		mg/L	1	04/30/24 02:19 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/30/24 02:19 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	0.000132	0.0000800	0.000200	J	mg/L	1	04/30/24 09:59 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	81.2	3.00	10.0		mg/L	10	04/26/24 11:44 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	04/27/24 03:51 AM
Sulfate	45.3	1.00	3.00		mg/L	1	04/27/24 03:51 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	288	10.0	10.0		mg/L	1	04/29/24 04:45 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: *10-Jun-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-27
Project:	VISTRA-MLSES ASH PONDS	**Lab ID:**	2404281-08
Project No:	23643V-16	**Collection Date:**	04/24/24 04:00 PM
Lab Order:	2404281	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	04/30/24 02:22 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:22 PM
Barium	0.0691	0.00300	0.0100		mg/L	1	04/30/24 02:22 PM
Beryllium	0.00169	0.000300	0.00100		mg/L	1	04/30/24 02:22 PM
Boron	0.369	0.0100	0.0300		mg/L	1	04/30/24 02:48 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	04/30/24 02:22 PM
Calcium	13.3	0.100	0.300		mg/L	1	04/30/24 02:22 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:22 PM
Cobalt	0.0282	0.00300	0.00500		mg/L	1	04/30/24 02:22 PM
Lead	0.000453	0.000300	0.00100	J	mg/L	1	04/30/24 02:22 PM
Lithium	0.0152	0.00500	0.0100		mg/L	1	04/30/24 02:22 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	04/30/24 02:22 PM
Selenium	0.00478	0.00200	0.00500	J	mg/L	1	04/30/24 02:22 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	04/30/24 02:22 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	0.000211	0.0000800	0.000200		mg/L	1	04/30/24 10:01 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	85.2	3.00	10.0		mg/L	10	04/27/24 12:03 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	04/27/24 04:10 AM
Sulfate	42.0	1.00	3.00		mg/L	1	04/27/24 04:10 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	276	10.0	10.0		mg/L	1	04/29/24 04:45 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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_240416A

Sample ID: **DCS-114968** Batch ID: **114968** TestNo: **SW7470A** Units: **mg/L**
SampType: **DCS** Run ID: **CETAC2_HG_240416A** Analysis Date: **4/16/2024 10:05:58 AM** Prep Date: **4/15/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000189	0.000200	0.000200	0	94.5	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_240430B

The QC data in batch 115190 applies to the following samples: 2404281-01A, 2404281-02A, 2404281-03A, 2404281-04A, 2404281-05A, 2404281-06A, 2404281-07A, 2404281-08A

Sample ID: **MB-115190**	Batch ID: **115190**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MBLK**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 9:27:37 AM**	Prep Date: **4/29/2024**

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

Sample ID: **LCS-115190**	Batch ID: **115190**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCS**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 9:29:53 AM**	Prep Date: **4/29/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00211	0.000200	0.00200	0	106	85	115			

Sample ID: **LCSD-115190**	Batch ID: **115190**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 9:32:09 AM**	Prep Date: **4/29/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00204	0.000200	0.00200	0	102	85	115	3.37	15	

Sample ID: **2404281-06AMS**	Batch ID: **115190**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MS**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 9:50:18 AM**	Prep Date: **4/29/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00190	0.000200	0.00200	0	95.0	80	120			

Sample ID: **2404281-06AMSD**	Batch ID: **115190**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MSD**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 9:52:35 AM**	Prep Date: **4/29/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00193	0.000200	0.00200	0	96.5	80	120	1.57	15	

Sample ID: **2404281-06ASD**	Batch ID: **115190**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **SD**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 9:54:51 AM**	Prep Date: **4/29/2024**

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

Sample ID: **2404281-06APDS**	Batch ID: **115190**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **PDS**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 9:57:08 AM**	Prep Date: **4/29/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00256	0.000200	0.00250	0	102	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_240430B

Sample ID: **ICV-240430**	Batch ID: **R132794**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **ICV**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 8:51:17 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00406	0.000200	0.00400	0	102	90	110			

Sample ID: **CCV1-240430**	Batch ID: **R132794**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 9:23:03 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00199	0.000200	0.00200	0	99.5	90	110			

Sample ID: **CCV2-240430**	Batch ID: **R132794**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_240430B**	Analysis Date: **4/30/2024 10:06:15 AM**	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			

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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240304A

Sample ID: **DCS2-114267**	Batch ID: **114267**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS2**	Run ID: **ICP-MS4_240304A**	Analysis Date: **3/4/2024 11:51:00 AM**	Prep Date: **3/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.297	0.300	0.300	0	99.1	70	130	0	0	

Sample ID: **DCS4-114267**	Batch ID: **114267**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS4**	Run ID: **ICP-MS4_240304A**	Analysis Date: **3/4/2024 11:57:00 AM**	Prep Date: **3/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0299	0.0300	0.0300	0	99.8	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240430C

The QC data in batch 115199 applies to the following samples: 2404281-01A, 2404281-02A, 2404281-03A, 2404281-04A, 2404281-05A, 2404281-06A, 2404281-07A, 2404281-08A

Sample ID: **MB-115199** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_240430C** Analysis Date: **4/30/2024 2:22:00 PM** Prep Date: **4/30/2024**

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

Sample ID: **LCS-115199** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_240430C** Analysis Date: **4/30/2024 2:24:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.194	0.0300	0.200	0	97.2	80	120			

Sample ID: **LCSD-115199** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_240430C** Analysis Date: **4/30/2024 2:26:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.200	0.0300	0.200	0	100	80	120	2.95	15	

Sample ID: **2404282-09A SD** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_240430C** Analysis Date: **4/30/2024 2:32:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.177	0.150	0	0.158				11.2	20	

Sample ID: **2404282-09A PDS** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_240430C** Analysis Date: **4/30/2024 2:51:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.334	0.0300	0.200	0.158	88.2	75	125			

Sample ID: **2404282-09A MS** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS4_240430C** Analysis Date: **4/30/2024 2:53:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.339	0.0300	0.200	0.158	90.3	75	125			

Sample ID: **2404282-09A MSD** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_240430C** Analysis Date: **4/30/2024 2:55:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.337	0.0300	0.200	0.158	89.3	75	125	0.589	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240430C

Sample ID: **ICV-240430**	Batch ID: **R132814**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_240430C**	Analysis Date: **4/30/2024 10:18:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0929	0.0300	0.100	0	92.9	90	110			
Calcium	2.48	0.300	2.50	0	99.2	90	110			

Sample ID: **LCVL-240430**	Batch ID: **R132814**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_240430C**	Analysis Date: **4/30/2024 10:26:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0239	0.0300	0.0200	0	119	80	120			
Calcium	0.112	0.300	0.100	0	112	80	120			

Sample ID: **CCV4-240430**	Batch ID: **R132814**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240430C**	Analysis Date: **4/30/2024 1:13:00 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	4.86	0.300	5.00	0	97.2	90	110			

Sample ID: **CCV5-240430**	Batch ID: **R132814**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240430C**	Analysis Date: **4/30/2024 2:57:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.205	0.0300	0.200	0	103	90	110			
Calcium	4.99	0.300	5.00	0	99.8	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240304A

Sample ID: **DCS1-114267**	Batch ID: **114267**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS**	Run ID: **ICP-MS5_240304A**	Analysis Date: **3/4/2024 10:02:00 AM**	Prep Date: **3/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.000999	0.00250	0.00100	0	99.9	70	130	0	0	
Beryllium	0.000524	0.00100	0.000500	0	105	70	130	0	0	
Cadmium	0.000534	0.00100	0.000500	0	107	70	130	0	0	
Lead	0.000504	0.00100	0.000500	0	101	70	130	0	0	
Thallium	0.000481	0.00150	0.000500	0	96.2	70	130	0	0	

Sample ID: **DCS3-114267**	Batch ID: **114267**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS3**	Run ID: **ICP-MS5_240304A**	Analysis Date: **3/4/2024 10:08:00 AM**	Prep Date: **3/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00497	0.00500	0.00500	0	99.4	70	130	0	0	
Barium	0.00481	0.0100	0.00500	0	96.1	70	130	0	0	
Chromium	0.00499	0.00500	0.00500	0	99.8	70	130	0	0	
Cobalt	0.00512	0.00500	0.00500	0	102	70	130	0	0	
Lithium	0.00511	0.0100	0.00500	0	102	70	130	0	0	
Molybdenum	0.00478	0.00500	0.00500	0	95.7	70	130	0	0	
Selenium	0.00494	0.00500	0.00500	0	98.8	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: **ICP-MS5_240430B**

The QC data in batch 115199 applies to the following samples: 2404281-01A, 2404281-02A, 2404281-03A, 2404281-04A, 2404281-05A, 2404281-06A, 2404281-07A, 2404281-08A

Sample ID: **MB-115199** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_240430B** Analysis Date: **4/30/2024 1:45:00 PM** Prep Date: **4/30/2024**

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-115199** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_240430B** Analysis Date: **4/30/2024 1:51:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.203	0.00250	0.200	0	101	80	120			
Arsenic	0.205	0.00500	0.200	0	103	80	120			
Barium	0.202	0.0100	0.200	0	101	80	120			
Beryllium	0.191	0.00100	0.200	0	95.6	80	120			
Cadmium	0.203	0.00100	0.200	0	102	80	120			
Calcium	5.03	0.300	5.00	0	101	80	120			
Chromium	0.203	0.00500	0.200	0	101	80	120			
Cobalt	0.209	0.00500	0.200	0	105	80	120			
Lead	0.193	0.00100	0.200	0	96.7	80	120			
Lithium	0.188	0.0100	0.200	0	93.9	80	120			
Molybdenum	0.203	0.00500	0.200	0	101	80	120			
Selenium	0.205	0.00500	0.200	0	103	80	120			
Thallium	0.195	0.00150	0.200	0	97.3	80	120			

Sample ID: **LCSD-115199** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_240430B** Analysis Date: **4/30/2024 1:53:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.204	0.00250	0.200	0	102	80	120	0.444	15	
Arsenic	0.204	0.00500	0.200	0	102	80	120	0.515	15	
Barium	0.201	0.0100	0.200	0	100	80	120	0.676	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240430B

Sample ID: **LCSD-115199** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_240430B** Analysis Date: **4/30/2024 1:53:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.190	0.00100	0.200	0	95.0	80	120	0.623	15	
Cadmium	0.202	0.00100	0.200	0	101	80	120	0.350	15	
Calcium	5.09	0.300	5.00	0	102	80	120	1.32	15	
Chromium	0.203	0.00500	0.200	0	102	80	120	0.369	15	
Cobalt	0.210	0.00500	0.200	0	105	80	120	0.393	15	
Lead	0.195	0.00100	0.200	0	97.7	80	120	1.06	15	
Lithium	0.188	0.0100	0.200	0	93.9	80	120	0.076	15	
Molybdenum	0.203	0.00500	0.200	0	101	80	120	0.083	15	
Selenium	0.207	0.00500	0.200	0	104	80	120	0.844	15	
Thallium	0.196	0.00150	0.200	0	98.2	80	120	0.894	15	

Sample ID: **2404282-09A SD** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_240430B** Analysis Date: **4/30/2024 2:01:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	<0.00400	0.0125	0	0				0	20	
Arsenic	0.0122	0.0250	0	0.0118				3.21	20	
Barium	0.0214	0.0500	0	0.0211				1.62	20	
Beryllium	<0.00150	0.00500	0	0				0	20	
Cadmium	<0.00150	0.00500	0	0				0	20	
Calcium	159	1.50	0	157				0.984	20	
Chromium	<0.0100	0.0250	0	0				0	20	
Cobalt	0.131	0.0250	0	0.129				1.47	20	
Lead	0.00219	0.00500	0	0.00142				42.5	20	R
Lithium	<0.0250	0.0500	0	0.0136				0	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: **2404282-09A PDS** Batch ID: **115199** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_240430B** Analysis Date: **4/30/2024 2:27:00 PM** Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.172	0.00250	0.200	0	85.9	75	125			
Arsenic	0.204	0.00500	0.200	0.0118	96.0	75	125			
Barium	0.217	0.0100	0.200	0.0211	98.2	75	125			
Beryllium	0.184	0.00100	0.200	0	91.8	75	125			
Cadmium	0.194	0.00100	0.200	0	97.0	75	125			
Calcium	152	0.300	5.00	157	-102	75	125			S
Chromium	0.195	0.00500	0.200	0	97.7	75	125			
Cobalt	0.317	0.00500	0.200	0.129	93.9	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240430B

Sample ID: **2404282-09A PDS**	Batch ID: **115199**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 2:27:00 PM**	Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.189	0.00100	0.200	0.00142	93.9	75	125			
Lithium	0.194	0.0100	0.200	0.0136	90.4	75	125			
Molybdenum	0.195	0.00500	0.200	0	97.7	75	125			
Selenium	0.185	0.00500	0.200	0	92.5	75	125			
Thallium	0.191	0.00150	0.200	0	95.6	75	125			

Sample ID: **2404282-09A MS**	Batch ID: **115199**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 2:29:00 PM**	Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.209	0.00250	0.200	0	105	75	125			
Arsenic	0.207	0.00500	0.200	0.0118	97.4	75	125			
Barium	0.224	0.0100	0.200	0.0211	102	75	125			
Beryllium	0.189	0.00100	0.200	0	94.5	75	125			
Cadmium	0.257	0.00100	0.200	0	129	75	125			S
Calcium	380	0.300	5.00	157	4450	75	125			S
Chromium	0.201	0.00500	0.200	0	101	75	125			
Cobalt	0.228	0.00500	0.200	0.129	49.2	75	125			S
Lead	0.196	0.00100	0.200	0.00142	97.1	75	125			
Lithium	0.197	0.0100	0.200	0.0136	91.8	75	125			
Molybdenum	0.209	0.00500	0.200	0	105	75	125			
Selenium	0.196	0.00500	0.200	0	98.0	75	125			
Thallium	0.199	0.00150	0.200	0	99.3	75	125			

Sample ID: **2404282-09A MSD**	Batch ID: **115199**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 2:32:00 PM**	Prep Date: **4/30/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.207	0.00250	0.200	0	103	75	125	1.11	15	
Arsenic	0.208	0.00500	0.200	0.0118	97.9	75	125	0.531	15	
Barium	0.222	0.0100	0.200	0.0211	101	75	125	0.928	15	
Beryllium	0.187	0.00100	0.200	0	93.3	75	125	1.23	15	
Cadmium	0.254	0.00100	0.200	0	127	75	125	1.14	15	S
Calcium	368	0.300	5.00	157	4220	75	125	3.06	15	S
Chromium	0.199	0.00500	0.200	0	99.3	75	125	1.45	15	
Cobalt	0.230	0.00500	0.200	0.129	50.1	75	125	0.770	15	S
Lead	0.192	0.00100	0.200	0.00142	95.2	75	125	1.91	15	
Lithium	0.196	0.0100	0.200	0.0136	91.1	75	125	0.724	15	
Molybdenum	0.208	0.00500	0.200	0	104	75	125	0.831	15	
Selenium	0.193	0.00500	0.200	0	96.6	75	125	1.43	15	
Thallium	0.194	0.00150	0.200	0	97.1	75	125	2.17	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240430B

Sample ID: **ICV-240430**	Batch ID: **R132811**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 10:04:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.101	0.00250	0.100	0	101	90	110			
Arsenic	0.101	0.00500	0.100	0	101	90	110			
Barium	0.0993	0.0100	0.100	0	99.3	90	110			
Beryllium	0.0990	0.00100	0.100	0	99.0	90	110			
Cadmium	0.102	0.00100	0.100	0	102	90	110			
Calcium	2.54	0.300	2.50	0	101	90	110			
Chromium	0.100	0.00500	0.100	0	100	90	110			
Cobalt	0.103	0.00500	0.100	0	103	90	110			
Lead	0.0976	0.00100	0.100	0	97.6	90	110			
Lithium	0.0994	0.0100	0.100	0	99.4	90	110			
Molybdenum	0.0972	0.00500	0.100	0	97.2	90	110			
Selenium	0.104	0.00500	0.100	0	104	90	110			
Thallium	0.0976	0.00150	0.100	0	97.6	90	110			

Sample ID: **LCVL-240430**	Batch ID: **R132811**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 10:09:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00213	0.00250	0.00200	0	107	80	120			
Arsenic	0.00544	0.00500	0.00500	0	109	80	120			
Barium	0.00497	0.0100	0.00500	0	99.3	80	120			
Beryllium	0.00113	0.00100	0.00100	0	112	80	120			
Cadmium	0.00108	0.00100	0.00100	0	108	80	120			
Calcium	0.0942	0.300	0.100	0	94.2	80	120			
Chromium	0.00520	0.00500	0.00500	0	104	80	120			
Cobalt	0.00537	0.00500	0.00500	0	107	80	120			
Lead	0.00105	0.00100	0.00100	0	105	80	120			
Lithium	0.0107	0.0100	0.0100	0	107	80	120			
Molybdenum	0.00528	0.00500	0.00500	0	106	80	120			
Selenium	0.00556	0.00500	0.00500	0	111	80	120			
Thallium	0.00102	0.00150	0.00100	0	102	80	120			

Sample ID: **CCV4-240430**	Batch ID: **R132811**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 1:21:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.203	0.00250	0.200	0	102	90	110			
Arsenic	0.205	0.00500	0.200	0	102	90	110			
Barium	0.201	0.0100	0.200	0	101	90	110			
Beryllium	0.189	0.00100	0.200	0	94.4	90	110			
Cadmium	0.203	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240430B

Sample ID: **CCV4-240430**	Batch ID: **R132811**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 1:21:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.02	0.300	5.00	0	100	90	110			
Chromium	0.203	0.00500	0.200	0	102	90	110			
Cobalt	0.209	0.00500	0.200	0	104	90	110			
Lead	0.194	0.00100	0.200	0	96.8	90	110			
Lithium	0.186	0.0100	0.200	0	93.1	90	110			
Molybdenum	0.203	0.00500	0.200	0	101	90	110			
Selenium	0.206	0.00500	0.200	0	103	90	110			
Thallium	0.194	0.00150	0.200	0	96.8	90	110			

Sample ID: **CCV5-240430**	Batch ID: **R132811**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 2:34:00 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	0.200	0.0100	0.200	0	99.8	90	110			
Beryllium	0.190	0.00100	0.200	0	95.2	90	110			
Cadmium	0.203	0.00100	0.200	0	102	90	110			
Calcium	4.95	0.300	5.00	0	99.0	90	110			
Chromium	0.203	0.00500	0.200	0	102	90	110			
Cobalt	0.212	0.00500	0.200	0	106	90	110			
Lead	0.196	0.00100	0.200	0	97.8	90	110			
Lithium	0.188	0.0100	0.200	0	94.1	90	110			
Molybdenum	0.205	0.00500	0.200	0	103	90	110			
Selenium	0.205	0.00500	0.200	0	103	90	110			
Thallium	0.196	0.00150	0.200	0	98.2	90	110			

Sample ID: **CCV6-240430**	Batch ID: **R132811**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 3:14:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.08	0.300	5.00	0	102	90	110			

Sample ID: **CCV7-240430**	Batch ID: **R132811**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240430B**	Analysis Date: **4/30/2024 3:31:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	5.03	0.300	5.00	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_240425B

Sample ID: **DCS3-115137** Batch ID: **115137** TestNo: **E300** Units: **mg/L**
SampType: **DCS3** Run ID: **IC4_240425B** Analysis Date: **4/25/2024 12:04:03 PM** Prep Date: **4/25/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.964	1.00	1.000	0	96.4	65	135	0	0	
Fluoride	0.343	0.400	0.4000	0	85.8	65	135	0	0	
Sulfate	3.56	3.00	3.000	0	119	65	135	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_240426A

The QC data in batch 115163 applies to the following samples: 2404281-01B, 2404281-02B, 2404281-03B, 2404281-04B, 2404281-05B, 2404281-06B, 2404281-07B, 2404281-08B

Sample ID: **MB-115163** Batch ID: **115163** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC4_240426A** Analysis Date: **4/26/2024 10:42:00 AM** Prep Date: **4/26/2024**

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-115163** Batch ID: **115163** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC4_240426A** Analysis Date: **4/26/2024 11:01:00 AM** Prep Date: **4/26/2024**

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	3.74	0.400	4.000	0	93.6	90	110			
Sulfate	29.9	3.00	30.00	0	99.7	90	110			

Sample ID: **LCSD-115163** Batch ID: **115163** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC4_240426A** Analysis Date: **4/26/2024 11:19:59 AM** Prep Date: **4/26/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.99	1.00	10.00	0	99.9	90	110	0.424	20	
Fluoride	3.73	0.400	4.000	0	93.2	90	110	0.437	20	
Sulfate	29.7	3.00	30.00	0	99.0	90	110	0.753	20	

Sample ID: **2404268-01AMS** Batch ID: **115163** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC4_240426A** Analysis Date: **4/26/2024 5:43:33 PM** Prep Date: **4/26/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25100	1000	20000	4510	103	90	110			
Fluoride	19700	400	20000	0	98.3	90	110			
Sulfate	22200	3000	20000	2101	100	90	110			

Sample ID: **2404268-01AMSD** Batch ID: **115163** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC4_240426A** Analysis Date: **4/26/2024 6:02:33 PM** Prep Date: **4/26/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25000	1000	20000	4510	102	90	110	0.437	20	
Fluoride	19600	400	20000	0	97.9	90	110	0.394	20	
Sulfate	22000	3000	20000	2101	99.7	90	110	0.552	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_240426A

Sample ID: **2404268-02AMS**	Batch ID: **115163**	TestNo: **E300**	Units: **mg/L**
SampType: **MS**	Run ID: **IC4_240426A**	Analysis Date: **4/26/2024 6:40:33 PM**	Prep Date: **4/26/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	23500	1000	20000	2657	104	90	110			
Fluoride	19400	400	20000	0	97.2	90	110			
Sulfate	22400	3000	20000	1974	102	90	110			

Sample ID: **2404268-02AMSD**	Batch ID: **115163**	TestNo: **E300**	Units: **mg/L**
SampType: **MSD**	Run ID: **IC4_240426A**	Analysis Date: **4/26/2024 6:59:33 PM**	Prep Date: **4/26/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	23500	1000	20000	2657	104	90	110	0.030	20	
Fluoride	19500	400	20000	0	97.4	90	110	0.235	20	
Sulfate	22300	3000	20000	1974	101	90	110	0.495	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_240426A

Sample ID: **ICV-240426**	Batch ID: **R132755**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC4_240426A**	Analysis Date: **4/26/2024 10:04:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.3	1.00	25.00	0	101	90	110			
Fluoride	9.46	0.400	10.00	0	94.6	90	110			
Sulfate	75.5	3.00	75.00	0	101	90	110			

Sample ID: **CCV1-240426**	Batch ID: **R132755**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_240426A**	Analysis Date: **4/26/2024 1:31:30 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			
Fluoride	3.79	0.400	4.000	0	94.6	90	110			
Sulfate	30.0	3.00	30.00	0	100	90	110			

Sample ID: **CCV2-240426**	Batch ID: **R132755**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_240426A**	Analysis Date: **4/26/2024 10:28:33 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.2	1.00	10.00	0	102	90	110			
Fluoride	3.86	0.400	4.000	0	96.4	90	110			
Sulfate	30.1	3.00	30.00	0	100	90	110			

Sample ID: **CCV3-240426**	Batch ID: **R132755**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_240426A**	Analysis Date: **4/27/2024 2:54:33 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.2	1.00	10.00	0	102	90	110			
Sulfate	30.0	3.00	30.00	0	100	90	110			

Sample ID: **CCV4-240426**	Batch ID: **R132755**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_240426A**	Analysis Date: **4/27/2024 7:20:33 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.2	1.00	10.00	0	102	90	110			
Sulfate	30.0	3.00	30.00	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

ANALYTICAL QC SUMMARY REPORT

RunID: WC_240429B

The QC data in batch 115193 applies to the following samples: 2404281-01B, 2404281-02B, 2404281-03B, 2404281-04B, 2404281-05B, 2404281-06B, 2404281-07B, 2404281-08B

Sample ID: **MB-115193** Batch ID: **115193** TestNo: **M2540C** Units: **mg/L**
SampType: **MBLK** Run ID: **WC_240429B** Analysis Date: **4/29/2024 4:45:00 PM** Prep Date: **4/29/2024**

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-115193** Batch ID: **115193** TestNo: **M2540C** Units: **mg/L**
SampType: **LCS** Run ID: **WC_240429B** Analysis Date: **4/29/2024 4:45:00 PM** Prep Date: **4/29/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	750	10.0	745.6	0	101	90	113			

Sample ID: **2404281-01B-DUP** Batch ID: **115193** TestNo: **M2540C** Units: **mg/L**
SampType: **DUP** Run ID: **WC_240429B** Analysis Date: **4/29/2024 4:45:00 PM** Prep Date: **4/29/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1490	50.0	0	1495				0.671	5	

Sample ID: **2404281-02B-DUP** Batch ID: **115193** TestNo: **M2540C** Units: **mg/L**
SampType: **DUP** Run ID: **WC_240429B** Analysis Date: **4/29/2024 4:45:00 PM** Prep Date: **4/29/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1270	50.0	0	1325				4.63	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: BBA Engineering
Work Order: 2404281
Project: VISTRA-MLSES ASH PONDS

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

June 06, 2024

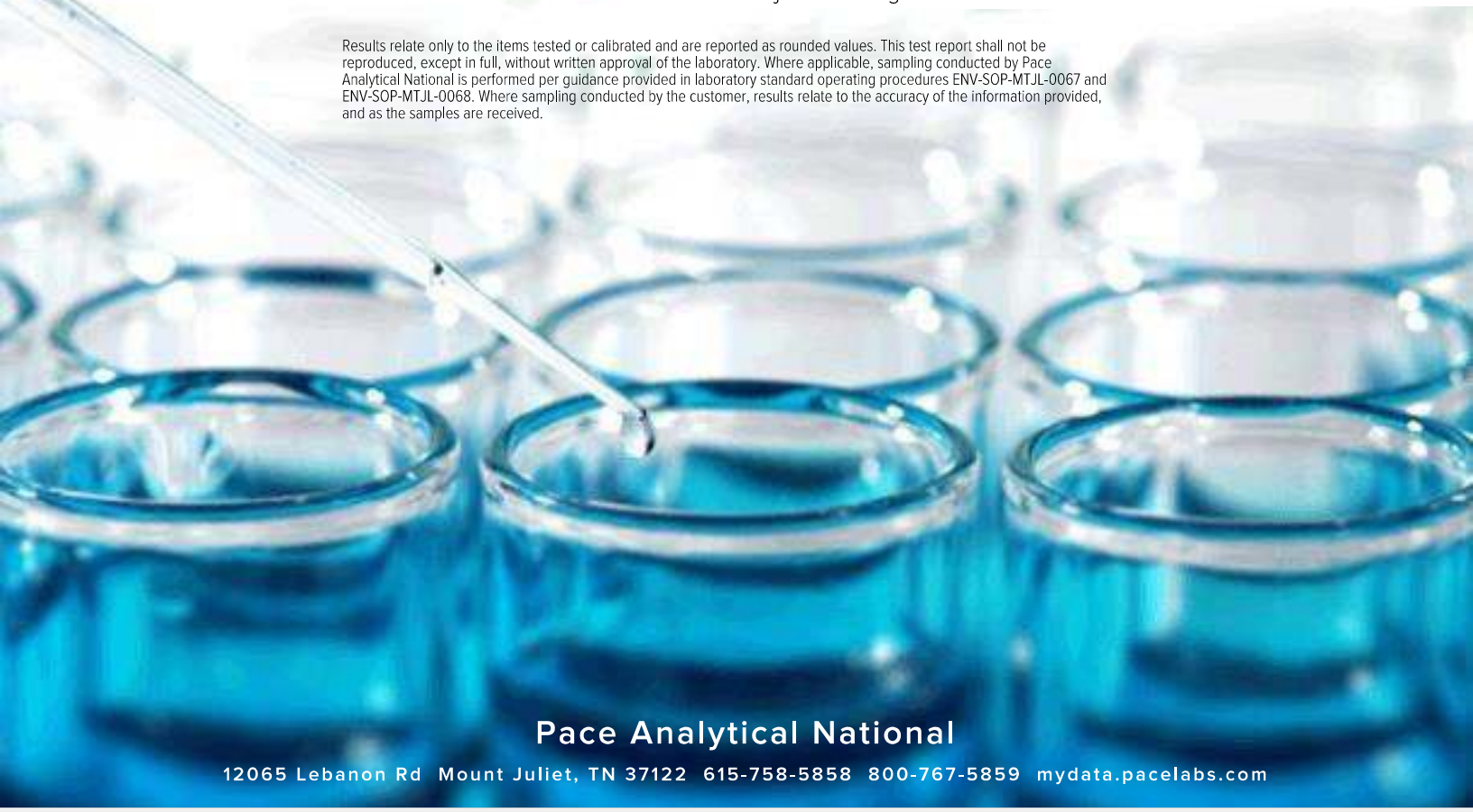
DHL Analytical, Inc.

Sample Delivery Group:	L1731395
Samples Received:	05/01/2024
Project Number:	2404281
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 L1731395-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 10:40	05/01/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2294205	1	05/28/24 13:24	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2290708	1	05/22/24 10:10	05/31/24 18:24	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2290708	1	05/22/24 10:10	05/28/24 14:08	ZRG	Mt. Juliet, TN

H-29 L1731395-02 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 11:30	05/01/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2294205	1	05/28/24 13:24	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2290708	1	05/22/24 10:10	05/31/24 18:24	ZRG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2290708	1	05/22/24 10:10	05/28/24 14:08	ZRG	Mt. Juliet, TN

H-33 L1731395-03 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 12:20	05/01/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2294205	1	05/28/24 13:24	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2290711	1	05/22/24 16:03	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2290711	1	05/22/24 16:03	05/24/24 22:51	ZRG	Mt. Juliet, TN

DUP-1 L1731395-04 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 12:20	05/01/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2294205	1	05/28/24 13:24	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2290711	1	05/22/24 16:03	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2290711	1	05/22/24 16:03	05/24/24 22:52	ZRG	Mt. Juliet, TN

H-32 L1731395-05 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 13:15	05/01/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2294205	1	05/28/24 13:24	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2290711	1	05/22/24 16:03	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2290711	1	05/22/24 16:03	05/24/24 22:52	ZRG	Mt. Juliet, TN

H-31 L1731395-06 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 14:10	05/01/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2294205	1	05/28/24 13:24	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2290711	1	05/22/24 16:03	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2290711	1	05/22/24 16:03	05/25/24 09:00	ZRG	Mt. Juliet, TN

H-26 L1731395-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 15:10	05/01/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2294205	1	05/28/24 13:24	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2290711	1	05/22/24 16:03	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2290711	1	05/22/24 16:03	05/24/24 22:52	ZRG	Mt. Juliet, TN

H-27 L1731395-08 Non-Potable Water

Collected by	Collected date/time	Received date/time
	04/24/24 16:00	05/01/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2294205	1	05/28/24 13:24	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2290711	1	05/22/24 16:03	05/31/24 18:24	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2290711	1	05/22/24 16:03	05/24/24 22:52	ZRG	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	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.625	J	0.376	0.495	0.671	0.350	05/31/2024 18:24	WG2294205
(T) Barium	*72.3*					*30.0-143*	*05/31/2024 18:24*	WG2294205
(T) Yttrium	*102*					*30.0-136*	*05/31/2024 18:24*	WG2294205

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.69		0.704	0.814	05/31/2024 18:24	WG2290708

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	1.07		0.595	0.135	0.460	0.350	05/28/2024 14:08	WG2290708
(T) Barium-133	*44.6*					*30.0-143*	*05/28/2024 14:08*	WG2290708

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	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.660	J	0.422	0.547	0.755	0.393	05/31/2024 18:24	WG2294205
(T) Barium	*70.5*					*30.0-143*	*05/31/2024 18:24*	WG2294205
(T) Yttrium	*91.7*					*30.0-136*	*05/31/2024 18:24*	WG2294205

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.03	J	0.664	1.06	05/31/2024 18:24	WG2290708

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.371	J	0.513	0.0735	0.750	0.515	05/28/2024 14:08	WG2290708
(T) Barium-133	*31.3*					*30.0-143*	*05/28/2024 14:08*	WG2290708

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.443	J	0.355	0.464	0.637	0.331	05/31/2024 18:24	WG2294205
(T) Barium	*96.5*					*30.0-143*	*05/31/2024 18:24*	WG2294205
(T) Yttrium	*86.0*					*30.0-136*	*05/31/2024 18:24*	WG2294205

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.19		0.499	0.666	05/31/2024 18:24	WG2290711

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.747		0.351	0.164	0.194	0.160	05/24/2024 22:51	WG2290711
(T) Barium-133	*90.3*					*30.0-143*	*05/24/2024 22:51*	WG2290711

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	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.11		0.346	0.456	0.603	0.314	05/31/2024 18:24	WG2294205
(T) Barium	*92.7*					*30.0-143*	*05/31/2024 18:24*	WG2294205
(T) Yttrium	*87.5*					*30.0-136*	*05/31/2024 18:24*	WG2294205

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.97		0.546	0.718	05/31/2024 18:24	WG2290711

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.860		0.423	0.196	0.390	0.258	05/24/2024 22:52	WG2290711
(T) Barium-133	*94.0*					*30.0-143*	*05/24/2024 22:52*	WG2290711

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.497		0.278	0.378	0.496	0.259	05/31/2024 18:24	WG2294205
(T) Barium	*98.5*					*30.0-143*	*05/31/2024 18:24*	WG2294205
(T) Yttrium	*100*					*30.0-136*	*05/31/2024 18:24*	WG2294205

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.53		0.483	0.527	05/31/2024 18:24	WG2290711

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	1.04		0.395	0.168	0.178	0.147	05/24/2024 22:52	WG2290711
(T) Barium-133	*81.4*					*30.0-143*	*05/24/2024 22:52*	WG2290711

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.54		0.308	0.416	0.519	0.272	05/31/2024 18:24	WG2294205
(T) Barium	*88.8*					*30.0-143*	*05/31/2024 18:24*	WG2294205
(T) Yttrium	*94.9*					*30.0-136*	*05/31/2024 18:24*	WG2294205

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.13		0.473	0.641	05/31/2024 18:24	WG2290711

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.589		0.359	0.170	0.376	0.248	05/25/2024 09:00	WG2290711
(T) Barium-133	*97.7*					*30.0-143*	*05/25/2024 09:00*	WG2290711

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.19		0.257	0.357	0.434	0.228	05/31/2024 18:24	WG2294205
(T) Barium	*96.4*					*30.0-143*	*05/31/2024 18:24*	WG2294205
(T) Yttrium	*103*					*30.0-136*	*05/31/2024 18:24*	WG2294205

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.32		0.368	0.603	05/31/2024 18:24	WG2290711

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.124	U	0.263	0.100	0.419	0.276	05/24/2024 22:52	WG2290711
(T) Barium-133	*87.7*					*30.0-143*	*05/24/2024 22:52*	WG2290711

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.648		0.222	0.326	0.388	0.205	05/31/2024 18:24	WG2294205
(T) Barium	*91.2*					*30.0-143*	*05/31/2024 18:24*	WG2294205
(T) Yttrium	*99.5*					*30.0-136*	*05/31/2024 18:24*	WG2294205

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.04		0.414	0.586	05/31/2024 18:24	WG2290711

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.391	J	0.350	0.136	0.439	0.288	05/24/2024 22:52	WG2290711
(T) Barium-133	*83.7*					*30.0-143*	*05/24/2024 22:52*	WG2290711

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

Method Blank (MB)

(MB) R4077283-1 05/31/24 18:24

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.292	U	0.174	0.332	0.175
(T) Barium	*90.2*		*90.2*		
(T) Yttrium	*93.4*		*93.4*		

L1732516-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1732516-01 05/31/24 18:24 • (DUP) R4077283-5 05/31/24 18:24

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.585	0.256	0.454	0.238	2.39	0.811	1.42	0.742	121	2.12		20	3
(T) Barium	*95.5*				*92.8*	*92.8*							
(T) Yttrium	*106*				*79.4*	*79.4*							

Laboratory Control Sample (LCS)

(LCS) R4077283-2 05/31/24 18:24

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.89	118	80.0-120	
(T) Barium			*104*		
(T) Yttrium			*95.2*		

L1733112-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1733112-01 05/31/24 18:24 • (MS) R4077283-3 05/31/24 18:24 • (MSD) R4077283-4 05/31/24 18:24

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	16.7	0.123	20.2	19.1	120	114	1	70.0-130			5.85		20
(T) Barium		*88.9*			*87.5*	*84.9*							
(T) Yttrium		*94.0*			*98.7*	*101*							

Method Blank (MB)

(MB) R4077903-1 05/28/24 14:08

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.147	J	0.118	0.158	0.0976
(T) Barium-133	*28.3*	C2	*28.3*		

L1731005-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1731005-01 06/01/24 05:28 • (DUP) R4077903-5 06/01/24 05:28

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	94.2	3.29	0.189	0.0994	92.4	3.34	0.407	0.177	2.02	0.401		20	3
(T) Barium-133	*90.8*				*88.8*	*88.8*							

Laboratory Control Sample (LCS)

(LCS) R4077903-2 05/28/24 14:08

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.42	108	80.0-120	
(T) Barium-133			*45.2*		

L1731395-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1731395-02 05/28/24 14:08 • (MS) R4077903-3 05/28/24 14:08 • (MSD) R4077903-4 05/28/24 14:08

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-226	20.0	0.371	20.3	21.0	99.8	103	1	75.0-125			3.00		20
(T) Barium-133		*31.3*			*51.2*	*30.6*							

Method Blank (MB)

(MB) R4075765-1 05/24/24 22:51

Analyte	MB Result	MB Qualifier	MB 2 sigma CE	MB MDA	MB Lc
	pCi/l		+ / -	pCi/l	pCi/l
Radium-226	0.0477		0.0330	0.0389	0.0257
(T) Barium-133	*90.6*		*90.6*		

L1732516-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1732516-01 05/24/24 22:52 • (DUP) R4075765-5 05/24/24 22:51

Analyte	Original Result	Original 2 sigma CE	Original MDA	Original Lc	DUP Result	DUP 2 sigma CE	DUP MDA	DUP Lc	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	pCi/l	+ / -	pCi/l	pCi/l	%			%	
Radium-226	0.594	0.383	0.419	0.273	0.423	0.326	0.358	0.253	33.5	0.339		20	3
(T) Barium-133	*93.2*				*79.4*	*79.4*							

Laboratory Control Sample (LCS)

(LCS) R4075765-2 05/24/24 22:51

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.00	5.25	105	80.0-120	
(T) Barium-133			*87.3*		

L1731395-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1731395-03 05/24/24 22:51 • (MS) R4075765-3 05/24/24 22:51 • (MSD) R4075765-4 05/24/24 22:51

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	0.747	20.6	21.1	99.2	102	1	75.0-125			2.35		20
(T) Barium-133		*90.3*			*86.5*	*92.7*							

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
C2	Tracer recovery limits have been exceeded; values are outside lower control limits.
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.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

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

CHAIN-OF-CUSTODY RECORD

Work Order: 2404281

A219

L731395

29-Apr-24

Subcontractor:

Pace Analytical
12065 Lebanon Rd
Mt. Juliet, TN 37122

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

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests					
					Ra-228	Ra-226				
					E904.0	M7500 Ra B M				
H-28	Aqueous	01C	04/24/24 10:40 AM	1LHDPE		1				-01
H-28	Aqueous	01D	04/24/24 10:40 AM	1LHDPE	1					
H-29	Aqueous	02C	04/24/24 11:30 AM	1LHDPE		1				-02
H-29	Aqueous	02D	04/24/24 11:30 AM	1LHDPE	1					
H-33	Aqueous	03C	04/24/24 12:20 PM	1LHDPE		1				-03
H-33	Aqueous	03D	04/24/24 12:20 PM	1LHDPE	1					
DUP-1	Aqueous	04C	04/24/24 12:20 PM	1LHDPE		1				-04
DUP-1	Aqueous	04D	04/24/24 12:20 PM	1LHDPE	1					
H-32	Aqueous	05C	04/24/24 01:15 PM	1LHDPE		1				-05
H-32	Aqueous	05D	04/24/24 01:15 PM	1LHDPE	1					
H-31	Aqueous	06C	04/24/24 02:10 PM	1LHDPE		1				-06
H-31	Aqueous	06D	04/24/24 02:10 PM	1LHDPE	1					
H-26	Aqueous	07C	04/24/24 03:10 PM	1LHDPE		1				-07
H-26	Aqueous	07D	04/24/24 03:10 PM	1LHDPE	1					
H-27	Aqueous	08C	04/24/24 04:00 PM	1LHDPE		1				-08
H-27	Aqueous	08D	04/24/24 04:00 PM	1LHDPE	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	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		
RA Screen <0.5 mR/hr:	Y N		

AMb

		Date/Time			Date/Time
Relinquished by:	E	4/29/24 1700	Received by:	Hayley Ratliff	5/1/24 0900
Relinquished by:			Received by:		

August 30, 2024

Will Vienne
BBA Engineering
165 N. Lampasas St.
Bertram, TX 78605
TEL: (512) 355-9198
FAX:

Order No.: 2408004

RE: MLSES-ASH PONDS-CCR

Dear Will Vienne:

DHL Analytical, Inc. received 7 sample(s) on 8/1/2024 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 - TX-C24-00120

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: BBA
ADDRESS: 165 N. LAMPASAS ST. BERRAM, TX
PHONE: EMAIL:
DATA REPORTED TO: WILL VIENNE
ADDITIONAL REPORT COPIES TO:

DATE: 7-31-24
PO#: 23643V-16

LAB USE ONLY
DHL WORKORDER #: 2408004

PROJECT LOCATION OR NAME: MLSES - ASH PONDS - CCR
CLIENT PROJECT # 23643V-16 COLLECTOR: JOHN BRAYTON

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

W=WATER L=LIQUID S=SOLID 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 ☐	H_3PO_4 ☐	HNO_3	H_2SO_4	NaOH ☐	Zn Acetate ☐	ICE ☒	UNPRESERVED ☐	ANALYSES	APPENDIX III	APPENDIX IV	FIELD NOTES
H-28	01	7-29-24	1250	W	P	4			X				X			X	X	
H-29	02	↓	1350	W	P	4			X				X			X	X	
H-31	03		1500	W	P	4			X				X			X	X	
JB H-32			1620	W	P	4			X				X			X	X	
H-33	04	7-30-24	0830	W	P	4			X				X			X	X	
DUP-1	05	↓	0830	W	P	4			X				X			X	X	
H-26	06		0915	W	P	4			X				X			X	X	
H-27	07	↓	1020	W	P	4			X				X			X	X	

Relinquished By: (Sign)	DATE/TIME	Received by:
	7-31-24 1700	FedEx
FedEx	8/1/24 0934	
	DATE/TIME	Received by:

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

LAB USE ONLY **THERMO #:** 78
RECEIVING TEMP (°C): 2.2°C, 1.6°C
IF >6°C, ARE SAMPLES ON ICE AND JUST COLLECTED? YES / NO
CUSTODY SEALS ON ICE CHEST: ☐ BROKEN ☑ INTACT ☐ NOT USED
CARRIER: ☐ LSO ☑ FEDEX ☐ UPS ☐ COURIER ☐ HAND DELIVERED

☐ **DHL DISPOSAL @ $10.00 each**

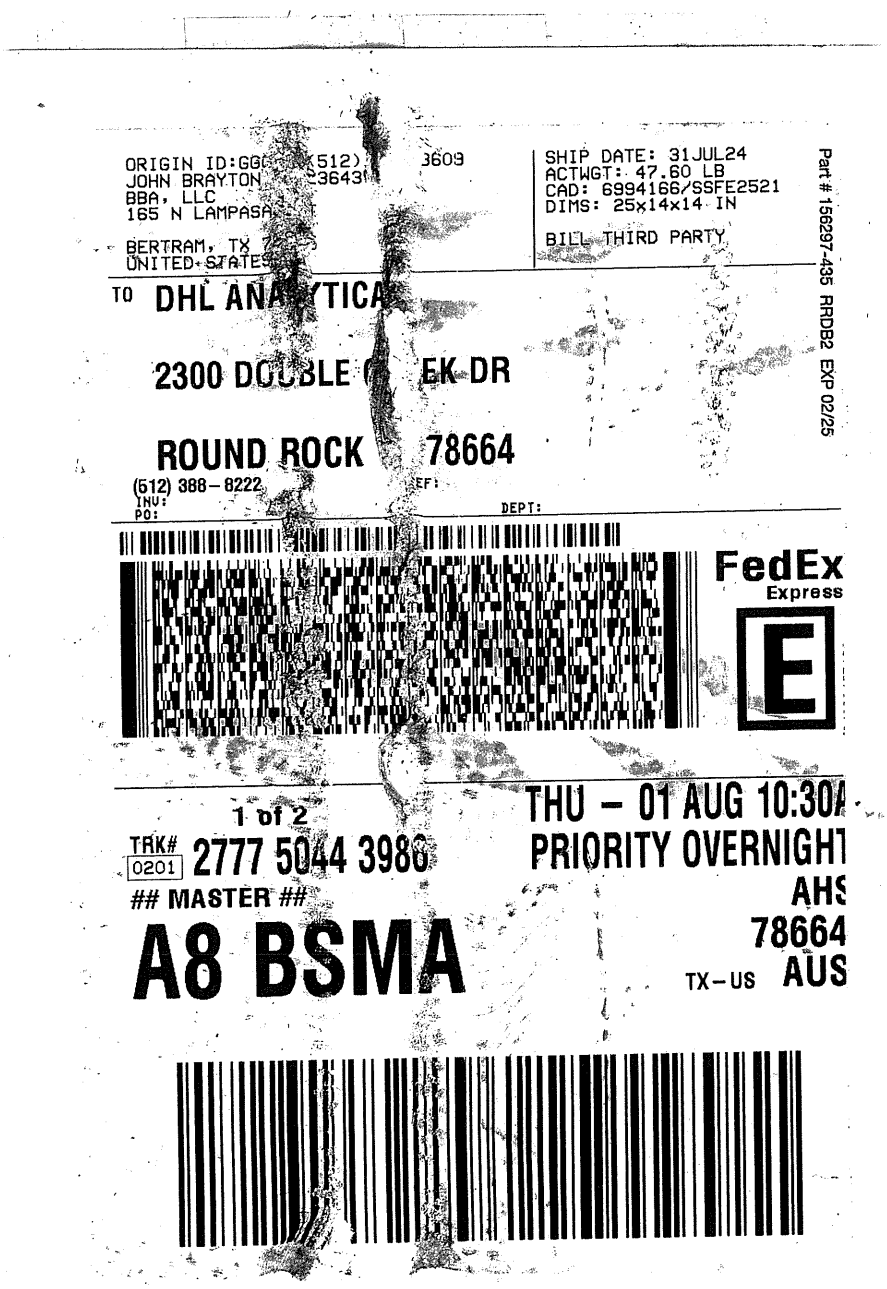
Eric Lau

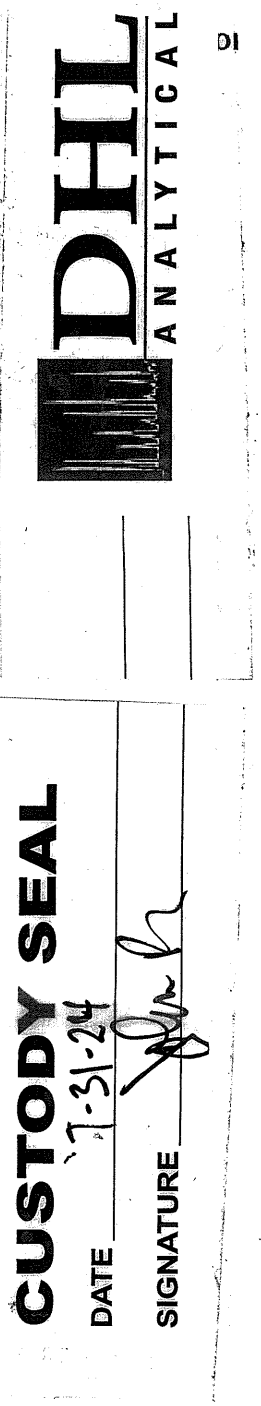
From: John DuPont
Sent: Tuesday, May 28, 2019 11:35 AM
To: Eric Lau
Subject: FW: CCR Analysis

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:GGG (512) 3609
JOHN BRAYTON 3643
BBA, LLC
165 N LAMPASAS
BERTRAM, TX 7
UNITED STATES
SHIP DATE: 31JUL24
ACTWGT: 47.60 LB
CAD: 6994166/SSFE2521
DIMS: 25x14x14 IN
BILL THIRD PARTY
Part # 156297-435 RRDB2 EXP 02/25
TO DHL ANA TICA
2300 DOUBLE EK DR
ROUND ROCK 78664
(512) 388-8222
INV:
PO:
DEPT:
FedEx
Express
1 of 2
TRK# 0201 2777 5044 3980
THU - 01 AUG 10:30A
PRIORITY OVERNIGHT
MASTER
AHS
78664
TX-US AUS
A8 BSMA


DHL
ANALYTICAL
CUSTODY SEAL
DATE 7-31-24
SIGNATURE

ORIGIN ID:GGGA (512) 695-8609
JOHN BRAYTON PO-23643V-16
BBA, LLC
165 N LAMPASAS ST

BERTRAM, TX 78605
UNITED STATES US

SHIP DATE: 31JUL24
ACTWGT: 55.85 LB
CAD: 6994166/SSFE2521
DIMS: 25x14x15 IN

BILL THIRD PARTY

Part # 156297-435 RRDB2 EXP 02/25

TO **DHL ANALYTICAL**

2300 DOUBLE CREEK DR

ROUND ROCK TX 78664

(512) 388-8222 REF:

INV:

PO: DEPT:

FedEx Express

2 of 2

MPS# 0263 **2777 5044 3997**

Mstr# 2777 5044 3986 0201

THU - 01 AUG 10:30
PRIORITY OVERNIGHT

A8 BSMA

78664
TX-US **AUS**

DHL ANALYTICAL

CUSTODY SEAL

DATE 7-31-24

SIGNATURE

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name: **BBA Engineering**

Date Received: **8/1/2024**

Work Order Number: **2408004**

Received by: **KAO**

Checklist completed by: _____ 8/1/2024
Signature | Date

Reviewed by: DL 8/1/2024
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 ☐	
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
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Cooler #	1	2
Temp °C	2.2	1.6
Seal Intact	Y	Y

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:** 8/30/24
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2408004
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:** 8/30/24
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2408004
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			**S2-04**
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			**S9-01**
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 May 30 - June 2, 2023. 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

08/30/24
Date

Name: Dr. Derhsing Luu
Official Title: Technical Director

DHL Analytical, Inc. **Date:** *30-Aug-24*

CLIENT: BBA Engineering
Project: MLSES-ASH PONDS-CCR
Lab Order: 2408004

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 SM7500 Ra B M. Analyzed at Pace Analytical.

Exception Report R1-01

The samples were received and log-in performed on 8/1/24. A total of 7 samples were received. The samples arrived in good condition and were properly packaged.

Exception Report R7-03

For Anions analysis performed on 8/1/24 the matrix spikes and matrix spike duplicate recoveries (2408004-01 MS/MSD & 2408006-01 MS) were slightly below control limits for Chloride or Sulfate. This was due to matrix effect. These are flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate (2408004-01 MS/MSD) was from this work order. The sample selected for the matrix spike and matrix spike duplicate (2408006-01 MS/MSD) was not from this work order. The LCS was within control limits for these analytes. No further corrective actions were taken.

Exception Report S2-04

For Metals analysis performed on 8/2/24 Molybdenum was detected below the reporting limit in CCB3-240802. All associated samples were QC samples. No further corrective actions were taken.

Exception Report S9-01

For Metals analysis performed on 8/2/24 the PDS recovery was out of control limits for Boron and Calcium. These are flagged accordingly in the QC summary report. The serial dilution was within control limits for these analytes. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *30-Aug-24*

CLIENT: BBA Engineering
Project: MLSES-ASH PONDS-CCR
Lab Order: 2408004

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2408004-01	H-28		07/29/24 12:50 PM	08/01/2024
2408004-02	H-29		07/29/24 01:50 PM	08/01/2024
2408004-03	H-31		07/29/24 03:00 PM	08/01/2024
2408004-04	H-33		07/30/24 08:30 AM	08/01/2024
2408004-05	DUP-1		07/30/24 08:30 AM	08/01/2024
2408004-06	H-26		07/30/24 09:15 AM	08/01/2024
2408004-07	H-27		07/30/24 10:20 AM	08/01/2024

Lab Order: 2408004
Client: BBA Engineering
Project: MLSES-ASH PONDS-CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2408004-01A	H-28	07/29/24 12:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-28	07/29/24 12:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-28	07/29/24 12:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-28	07/29/24 12:50 PM	Aqueous	SW7470A	Mercury Aq Prep	08/06/24 02:14 PM	116584
2408004-01B	H-28	07/29/24 12:50 PM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-28	07/29/24 12:50 PM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-28	07/29/24 12:50 PM	Aqueous	M2540C	TDS Preparation	08/02/24 02:22 PM	116540
2408004-02A	H-29	07/29/24 01:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-29	07/29/24 01:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-29	07/29/24 01:50 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-29	07/29/24 01:50 PM	Aqueous	SW7470A	Mercury Aq Prep	08/06/24 02:14 PM	116584
2408004-02B	H-29	07/29/24 01:50 PM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-29	07/29/24 01:50 PM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-29	07/29/24 01:50 PM	Aqueous	M2540C	TDS Preparation	08/02/24 02:22 PM	116540
2408004-03A	H-31	07/29/24 03:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-31	07/29/24 03:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-31	07/29/24 03:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-31	07/29/24 03:00 PM	Aqueous	SW7470A	Mercury Aq Prep	08/06/24 02:14 PM	116584
2408004-03B	H-31	07/29/24 03:00 PM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-31	07/29/24 03:00 PM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-31	07/29/24 03:00 PM	Aqueous	M2540C	TDS Preparation	08/02/24 02:22 PM	116540
2408004-04A	H-33	07/30/24 08:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-33	07/30/24 08:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-33	07/30/24 08:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-33	07/30/24 08:30 AM	Aqueous	SW7470A	Mercury Aq Prep	08/06/24 02:14 PM	116584
2408004-04B	H-33	07/30/24 08:30 AM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-33	07/30/24 08:30 AM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-33	07/30/24 08:30 AM	Aqueous	M2540C	TDS Preparation	08/02/24 02:22 PM	116540

Lab Order: 2408004
Client: BBA Engineering
Project: MLSES-ASH PONDS-CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2408004-05A	DUP-1	07/30/24 08:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	DUP-1	07/30/24 08:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	DUP-1	07/30/24 08:30 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	DUP-1	07/30/24 08:30 AM	Aqueous	SW7470A	Mercury Aq Prep	08/06/24 02:14 PM	116584
2408004-05B	DUP-1	07/30/24 08:30 AM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	DUP-1	07/30/24 08:30 AM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	DUP-1	07/30/24 08:30 AM	Aqueous	M2540C	TDS Preparation	08/02/24 02:22 PM	116540
2408004-06A	H-26	07/30/24 09:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-26	07/30/24 09:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-26	07/30/24 09:15 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-26	07/30/24 09:15 AM	Aqueous	SW7470A	Mercury Aq Prep	08/06/24 02:14 PM	116584
2408004-06B	H-26	07/30/24 09:15 AM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-26	07/30/24 09:15 AM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-26	07/30/24 09:15 AM	Aqueous	M2540C	TDS Preparation	08/02/24 02:22 PM	116540
2408004-07A	H-27	07/30/24 10:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-27	07/30/24 10:20 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/02/24 06:56 AM	116529
	H-27	07/30/24 10:20 AM	Aqueous	SW7470A	Mercury Aq Prep	08/06/24 02:14 PM	116584
2408004-07B	H-27	07/30/24 10:20 AM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-27	07/30/24 10:20 AM	Aqueous	E300	Anion Preparation	08/01/24 02:00 PM	116527
	H-27	07/30/24 10:20 AM	Aqueous	M2540C	TDS Preparation	08/02/24 02:22 PM	116540

Lab Order: 2408004
Client: BBA Engineering
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
2408004-01A	H-28	Aqueous	SW7470A	Mercury Total: Aqueous	116584	1	08/07/24 10:38 AM	CETAC2_HG_240807A
	H-28	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/02/24 01:50 PM	ICP-MS4_240802A
	H-28	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	20	08/05/24 03:04 PM	ICP-MS4_240805C
	H-28	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/05/24 03:25 PM	ICP-MS4_240805C
2408004-01B	H-28	Aqueous	E300	Anions by IC method - Water	116527	10	08/01/24 11:07 PM	IC2_240801C
	H-28	Aqueous	E300	Anions by IC method - Water	116527	1	08/05/24 07:04 PM	IC2_240805A
	H-28	Aqueous	M2540C	Total Dissolved Solids	116540	1	08/02/24 04:20 PM	WC_240802C
2408004-02A	H-29	Aqueous	SW7470A	Mercury Total: Aqueous	116584	1	08/07/24 10:40 AM	CETAC2_HG_240807A
	H-29	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/02/24 01:51 PM	ICP-MS4_240802A
	H-29	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	20	08/05/24 03:06 PM	ICP-MS4_240805C
	H-29	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/05/24 03:27 PM	ICP-MS4_240805C
2408004-02B	H-29	Aqueous	E300	Anions by IC method - Water	116527	10	08/02/24 12:01 AM	IC2_240801C
	H-29	Aqueous	E300	Anions by IC method - Water	116527	1	08/05/24 07:22 PM	IC2_240805A
	H-29	Aqueous	M2540C	Total Dissolved Solids	116540	1	08/02/24 04:20 PM	WC_240802C
2408004-03A	H-31	Aqueous	SW7470A	Mercury Total: Aqueous	116584	1	08/07/24 10:42 AM	CETAC2_HG_240807A
	H-31	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/02/24 01:53 PM	ICP-MS4_240802A
	H-31	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	20	08/05/24 03:08 PM	ICP-MS4_240805C
	H-31	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/05/24 03:29 PM	ICP-MS4_240805C
2408004-03B	H-31	Aqueous	E300	Anions by IC method - Water	116527	10	08/02/24 12:19 AM	IC2_240801C
	H-31	Aqueous	E300	Anions by IC method - Water	116527	1	08/05/24 07:40 PM	IC2_240805A
	H-31	Aqueous	M2540C	Total Dissolved Solids	116540	1	08/02/24 04:20 PM	WC_240802C
2408004-04A	H-33	Aqueous	SW7470A	Mercury Total: Aqueous	116584	1	08/07/24 10:45 AM	CETAC2_HG_240807A
	H-33	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	10	08/02/24 02:35 PM	ICP-MS4_240802A
	H-33	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/05/24 03:10 PM	ICP-MS4_240805C
	H-33	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/02/24 01:55 PM	ICP-MS4_240802A
2408004-04B	H-33	Aqueous	E300	Anions by IC method - Water	116527	10	08/02/24 12:37 AM	IC2_240801C

Lab Order: 2408004
Client: BBA Engineering
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
2408004-04B	H-33	Aqueous	E300	Anions by IC method - Water	116527	1	08/05/24 07:58 PM	IC2_240805A
	H-33	Aqueous	M2540C	Total Dissolved Solids	116540	1	08/02/24 04:20 PM	WC_240802C
2408004-05A	DUP-1	Aqueous	SW7470A	Mercury Total: Aqueous	116584	1	08/07/24 10:47 AM	CETAC2_HG_240807A
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/02/24 01:57 PM	ICP-MS4_240802A
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	10	08/02/24 02:37 PM	ICP-MS4_240802A
	DUP-1	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/05/24 03:12 PM	ICP-MS4_240805C
2408004-05B	DUP-1	Aqueous	E300	Anions by IC method - Water	116527	10	08/02/24 12:55 AM	IC2_240801C
	DUP-1	Aqueous	E300	Anions by IC method - Water	116527	1	08/05/24 08:16 PM	IC2_240805A
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	116540	1	08/02/24 04:20 PM	WC_240802C
2408004-06A	H-26	Aqueous	SW7470A	Mercury Total: Aqueous	116584	1	08/07/24 10:49 AM	CETAC2_HG_240807A
	H-26	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/05/24 03:14 PM	ICP-MS4_240805C
	H-26	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/02/24 01:59 PM	ICP-MS4_240802A
	H-26	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	5	08/02/24 02:42 PM	ICP-MS4_240802A
2408004-06B	H-26	Aqueous	E300	Anions by IC method - Water	116527	10	08/02/24 01:13 AM	IC2_240801C
	H-26	Aqueous	E300	Anions by IC method - Water	116527	1	08/05/24 08:34 PM	IC2_240805A
	H-26	Aqueous	M2540C	Total Dissolved Solids	116540	1	08/02/24 04:20 PM	WC_240802C
2408004-07A	H-27	Aqueous	SW7470A	Mercury Total: Aqueous	116584	1	08/07/24 10:51 AM	CETAC2_HG_240807A
	H-27	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/02/24 02:01 PM	ICP-MS4_240802A
	H-27	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116529	1	08/05/24 03:16 PM	ICP-MS4_240805C
2408004-07B	H-27	Aqueous	E300	Anions by IC method - Water	116527	10	08/05/24 06:28 PM	IC2_240805A
	H-27	Aqueous	E300	Anions by IC method - Water	116527	1	08/05/24 08:52 PM	IC2_240805A
	H-27	Aqueous	M2540C	Total Dissolved Solids	116540	1	08/02/24 04:20 PM	WC_240802C

DHL Analytical, Inc.

Date: *30-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-28
Project:	MLSES-ASH PONDS-CCR	**Lab ID:**	2408004-01
Project No:	23643V-16	**Collection Date:**	07/29/24 12:50 PM
Lab Order:	2408004	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/02/24 01:50 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:50 PM
Barium	0.0218	0.00300	0.0100		mg/L	1	08/02/24 01:50 PM
Beryllium	0.00546	0.000300	0.00100		mg/L	1	08/02/24 01:50 PM
Boron	7.15	0.200	0.600		mg/L	20	08/05/24 03:04 PM
Cadmium	0.00178	0.000300	0.00100		mg/L	1	08/02/24 01:50 PM
Calcium	96.6	2.00	6.00		mg/L	20	08/05/24 03:04 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:50 PM
Cobalt	0.197	0.00300	0.00500		mg/L	1	08/02/24 01:50 PM
Lead	0.000730	0.000300	0.00100	J	mg/L	1	08/02/24 01:50 PM
Lithium	0.201	0.00500	0.0100		mg/L	1	08/02/24 01:50 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:50 PM
Selenium	0.00410	0.00200	0.00500	J	mg/L	1	08/02/24 01:50 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/05/24 03:25 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/07/24 10:38 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	120	3.00	10.0		mg/L	10	08/01/24 11:07 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/05/24 07:04 PM
Sulfate	827	10.0	30.0		mg/L	10	08/01/24 11:07 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	1580	50.0	50.0		mg/L	1	08/02/24 04:20 PM

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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: *30-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-29
Project:	MLSES-ASH PONDS-CCR	**Lab ID:**	2408004-02
Project No:	23643V-16	**Collection Date:**	07/29/24 01:50 PM
Lab Order:	2408004	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/02/24 01:51 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:51 PM
Barium	0.0189	0.00300	0.0100		mg/L	1	08/02/24 01:51 PM
Beryllium	0.00585	0.000300	0.00100		mg/L	1	08/02/24 01:51 PM
Boron	7.91	0.200	0.600		mg/L	20	08/05/24 03:06 PM
Cadmium	0.00147	0.000300	0.00100		mg/L	1	08/02/24 01:51 PM
Calcium	108	2.00	6.00		mg/L	20	08/05/24 03:06 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:51 PM
Cobalt	0.210	0.00300	0.00500		mg/L	1	08/02/24 01:51 PM
Lead	0.00119	0.000300	0.00100		mg/L	1	08/02/24 01:51 PM
Lithium	0.193	0.00500	0.0100		mg/L	1	08/02/24 01:51 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:51 PM
Selenium	0.00447	0.00200	0.00500	J	mg/L	1	08/02/24 01:51 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/05/24 03:27 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/07/24 10:40 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	122	3.00	10.0		mg/L	10	08/02/24 12:01 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/05/24 07:22 PM
Sulfate	907	10.0	30.0		mg/L	10	08/02/24 12:01 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	1620	50.0	50.0		mg/L	1	08/02/24 04:20 PM

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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: *30-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-31
Project:	MLSES-ASH PONDS-CCR	**Lab ID:**	2408004-03
Project No:	23643V-16	**Collection Date:**	07/29/24 03:00 PM
Lab Order:	2408004	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/02/24 01:53 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:53 PM
Barium	0.0302	0.00300	0.0100		mg/L	1	08/02/24 01:53 PM
Beryllium	0.00417	0.000300	0.00100		mg/L	1	08/02/24 01:53 PM
Boron	6.12	0.200	0.600		mg/L	20	08/05/24 03:08 PM
Cadmium	0.00125	0.000300	0.00100		mg/L	1	08/02/24 01:53 PM
Calcium	85.4	2.00	6.00		mg/L	20	08/05/24 03:08 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:53 PM
Cobalt	0.164	0.00300	0.00500		mg/L	1	08/02/24 01:53 PM
Lead	0.000971	0.000300	0.00100	J	mg/L	1	08/02/24 01:53 PM
Lithium	0.151	0.00500	0.0100		mg/L	1	08/02/24 01:53 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:53 PM
Selenium	0.00365	0.00200	0.00500	J	mg/L	1	08/02/24 01:53 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/05/24 03:29 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/07/24 10:42 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	94.2	3.00	10.0		mg/L	10	08/02/24 12:19 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/05/24 07:40 PM
Sulfate	691	10.0	30.0		mg/L	10	08/02/24 12:19 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	1250	50.0	50.0		mg/L	1	08/02/24 04:20 PM

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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: *30-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-33
Project:	MLSES-ASH PONDS-CCR	**Lab ID:**	2408004-04
Project No:	23643V-16	**Collection Date:**	07/30/24 08:30 AM
Lab Order:	2408004	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/02/24 01:55 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:55 PM
Barium	0.131	0.00300	0.0100		mg/L	1	08/02/24 01:55 PM
Beryllium	0.000561	0.000300	0.00100	J	mg/L	1	08/02/24 01:55 PM
Boron	0.0536	0.0100	0.0300		mg/L	1	08/05/24 03:10 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/02/24 01:55 PM
Calcium	50.9	1.00	3.00		mg/L	10	08/02/24 02:35 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:55 PM
Cobalt	0.0380	0.00300	0.00500		mg/L	1	08/02/24 01:55 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/02/24 01:55 PM
Lithium	0.137	0.00500	0.0100		mg/L	1	08/02/24 01:55 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:55 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:55 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/05/24 03:10 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/07/24 10:45 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	111	3.00	10.0		mg/L	10	08/02/24 12:37 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/05/24 07:58 PM
Sulfate	107	10.0	30.0		mg/L	10	08/02/24 12:37 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	503	10.0	10.0		mg/L	1	08/02/24 04:20 PM

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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: *30-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	DUP-1
Project:	MLSES-ASH PONDS-CCR	**Lab ID:**	2408004-05
Project No:	23643V-16	**Collection Date:**	07/30/24 08:30 AM
Lab Order:	2408004	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/02/24 01:57 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:57 PM
Barium	0.130	0.00300	0.0100		mg/L	1	08/02/24 01:57 PM
Beryllium	0.000716	0.000300	0.00100	J	mg/L	1	08/02/24 01:57 PM
Boron	0.0506	0.0100	0.0300		mg/L	1	08/05/24 03:12 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/02/24 01:57 PM
Calcium	51.6	1.00	3.00		mg/L	10	08/02/24 02:37 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:57 PM
Cobalt	0.0376	0.00300	0.00500		mg/L	1	08/02/24 01:57 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/02/24 01:57 PM
Lithium	0.139	0.00500	0.0100		mg/L	1	08/02/24 01:57 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:57 PM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:57 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/05/24 03:12 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/07/24 10:47 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	111	3.00	10.0		mg/L	10	08/02/24 12:55 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/05/24 08:16 PM
Sulfate	106	10.0	30.0		mg/L	10	08/02/24 12:55 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	505	10.0	10.0		mg/L	1	08/02/24 04:20 PM

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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: *30-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-26
Project:	MLSES-ASH PONDS-CCR	**Lab ID:**	2408004-06
Project No:	23643V-16	**Collection Date:**	07/30/24 09:15 AM
Lab Order:	2408004	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/02/24 01:59 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:59 PM
Barium	0.167	0.00300	0.0100		mg/L	1	08/02/24 01:59 PM
Beryllium	0.00102	0.000300	0.00100		mg/L	1	08/02/24 01:59 PM
Boron	0.278	0.0100	0.0300		mg/L	1	08/05/24 03:14 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/02/24 01:59 PM
Calcium	31.9	0.500	1.50		mg/L	5	08/02/24 02:42 PM
Chromium	0.00680	0.00200	0.00500		mg/L	1	08/02/24 01:59 PM
Cobalt	0.0171	0.00300	0.00500		mg/L	1	08/02/24 01:59 PM
Lead	<0.000300	0.000300	0.00100		mg/L	1	08/02/24 01:59 PM
Lithium	0.0379	0.00500	0.0100		mg/L	1	08/02/24 01:59 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 01:59 PM
Selenium	0.00792	0.00200	0.00500		mg/L	1	08/02/24 01:59 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/05/24 03:14 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/07/24 10:49 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	68.8	3.00	10.0		mg/L	10	08/02/24 01:13 AM
Fluoride	0.233	0.100	0.400	J	mg/L	1	08/05/24 08:34 PM
Sulfate	34.2	10.0	30.0		mg/L	10	08/02/24 01:13 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	277	10.0	10.0		mg/L	1	08/02/24 04:20 PM

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DHL Analytical, Inc.

Date: *30-Aug-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-27
Project:	MLSES-ASH PONDS-CCR	**Lab ID:**	2408004-07
Project No:	23643V-16	**Collection Date:**	07/30/24 10:20 AM
Lab Order:	2408004	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/02/24 02:01 PM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 02:01 PM
Barium	0.109	0.00300	0.0100		mg/L	1	08/02/24 02:01 PM
Beryllium	0.00127	0.000300	0.00100		mg/L	1	08/02/24 02:01 PM
Boron	0.265	0.0100	0.0300		mg/L	1	08/05/24 03:16 PM
Cadmium	<0.000300	0.000300	0.00100		mg/L	1	08/02/24 02:01 PM
Calcium	17.4	0.100	0.300		mg/L	1	08/02/24 02:01 PM
Chromium	0.00451	0.00200	0.00500	J	mg/L	1	08/02/24 02:01 PM
Cobalt	0.0191	0.00300	0.00500		mg/L	1	08/02/24 02:01 PM
Lead	0.000499	0.000300	0.00100	J	mg/L	1	08/02/24 02:01 PM
Lithium	0.0226	0.00500	0.0100		mg/L	1	08/02/24 02:01 PM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/02/24 02:01 PM
Selenium	0.00543	0.00200	0.00500		mg/L	1	08/02/24 02:01 PM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/05/24 03:16 PM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/07/24 10:51 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	66.6	3.00	10.0		mg/L	10	08/05/24 06:28 PM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/05/24 08:52 PM
Sulfate	29.9	1.00	3.00		mg/L	1	08/05/24 08:52 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	241	10.0	10.0		mg/L	1	08/02/24 04:20 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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_240711A

Sample ID: **DCS-116189** Batch ID: **116189** TestNo: **SW7470A** Units: **mg/L**
SampType: **DCS** Run ID: **CETAC2_HG_240711A** Analysis Date: **7/11/2024 11:37:36 AM** Prep Date: **7/11/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000194	0.000200	0.000200	0	97.0	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_240807A

The QC data in batch 116584 applies to the following samples: 2408004-01A, 2408004-02A, 2408004-03A, 2408004-04A, 2408004-05A, 2408004-06A, 2408004-07A

Sample ID: **MB-116584** Batch ID: **116584** TestNo: **SW7470A** Units: **mg/L**
SampType: **MBLK** Run ID: **CETAC2_HG_240807A** Analysis Date: **8/7/2024 10:31:25 AM** Prep Date: **8/6/2024**

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

Sample ID: **LCS-116584** Batch ID: **116584** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCS** Run ID: **CETAC2_HG_240807A** Analysis Date: **8/7/2024 10:33:41 AM** Prep Date: **8/6/2024**

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			

Sample ID: **LCSD-116584** Batch ID: **116584** TestNo: **SW7470A** Units: **mg/L**
SampType: **LCSD** Run ID: **CETAC2_HG_240807A** Analysis Date: **8/7/2024 10:35:57 AM** Prep Date: **8/6/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00201	0.000200	0.00200	0	101	85	115	1.00	15	

Sample ID: **2408009-01CMS** Batch ID: **116584** TestNo: **SW7470A** Units: **mg/L**
SampType: **MS** Run ID: **CETAC2_HG_240807A** Analysis Date: **8/7/2024 10:56:20 AM** Prep Date: **8/6/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00197	0.000200	0.00200	0	98.5	80	120			

Sample ID: **2408009-01CMSD** Batch ID: **116584** TestNo: **SW7470A** Units: **mg/L**
SampType: **MSD** Run ID: **CETAC2_HG_240807A** Analysis Date: **8/7/2024 10:58:36 AM** Prep Date: **8/6/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00198	0.000200	0.00200	0	99.0	80	120	0.506	15	

Sample ID: **2408009-01CPDS** Batch ID: **116584** TestNo: **SW7470A** Units: **mg/L**
SampType: **PDS** Run ID: **CETAC2_HG_240807A** Analysis Date: **8/7/2024 11:00:52 AM** Prep Date: **8/6/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00240	0.000200	0.00250	0	96.0	85	115			

Sample ID: **2408009-01CSD** Batch ID: **116584** TestNo: **SW7470A** Units: **mg/L**
SampType: **SD** Run ID: **CETAC2_HG_240807A** Analysis Date: **8/7/2024 11:03:08 AM** Prep Date: **8/6/2024**

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

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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_240807A

Sample ID: **ICV-240807**	Batch ID: **R134484**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **ICV**	Run ID: **CETAC2_HG_240807A**	Analysis Date: **8/7/2024 10:26:51 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00405	0.000200	0.00400	0	101	90	110			

Sample ID: **CCV-240807**	Batch ID: **R134484**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_240807A**	Analysis Date: **8/7/2024 11:07:42 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00199	0.000200	0.00200	0	99.5	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240606B

Sample ID: **DCS1-115670**	Batch ID: **115670**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS**	Run ID: **ICP-MS4_240606B**	Analysis Date: **6/6/2024 9:49:00 AM**	Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.000945	0.00250	0.00100	0	94.5	70	130	0	0	
Beryllium	0.000549	0.00100	0.000500	0	110	70	130	0	0	
Cadmium	0.000524	0.00100	0.000500	0	105	70	130	0	0	
Lead	0.000482	0.00100	0.000500	0	96.4	70	130	0	0	
Thallium	0.000465	0.00150	0.000500	0	93.0	70	130	0	0	

Sample ID: **DCS2-115670**	Batch ID: **115670**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS2**	Run ID: **ICP-MS4_240606B**	Analysis Date: **6/6/2024 9:52:00 AM**	Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.270	0.300	0.300	0	90.2	70	130	0	0	

Sample ID: **DCS3-115670**	Batch ID: **115670**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS3**	Run ID: **ICP-MS4_240606B**	Analysis Date: **6/6/2024 9:54:00 AM**	Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00475	0.00500	0.00500	0	95.1	70	130	0	0	
Barium	0.00483	0.0100	0.00500	0	96.7	70	130	0	0	
Chromium	0.00494	0.00500	0.00500	0	98.8	70	130	0	0	
Cobalt	0.00506	0.00500	0.00500	0	101	70	130	0	0	
Lithium	0.00513	0.0100	0.00500	0	103	70	130	0	0	
Molybdenum	0.00552	0.00500	0.00500	0	110	70	130	0	0	
Selenium	0.00460	0.00500	0.00500	0	91.9	70	130	0	0	

Sample ID: **DCS4-115670**	Batch ID: **115670**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS4**	Run ID: **ICP-MS4_240606B**	Analysis Date: **6/6/2024 9:57:00 AM**	Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0298	0.0300	0.0300	0	99.4	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240802A

The QC data in batch 116529 applies to the following samples: 2408004-01A, 2408004-02A, 2408004-03A, 2408004-04A, 2408004-05A, 2408004-06A, 2408004-07A

Sample ID: **MB-116529** Batch ID: **116529** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 12:59:00 PM** Prep Date: **8/2/2024**

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								
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								

Sample ID: **LCS-116529** Batch ID: **116529** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 1:01:00 PM** Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.189	0.00250	0.200	0	94.7	80	120			
Arsenic	0.194	0.00500	0.200	0	97.1	80	120			
Barium	0.190	0.0100	0.200	0	95.1	80	120			
Beryllium	0.204	0.00100	0.200	0	102	80	120			
Boron	0.207	0.0300	0.200	0	104	80	120			
Cadmium	0.192	0.00100	0.200	0	95.8	80	120			
Calcium	4.88	0.300	5.00	0	97.7	80	120			
Chromium	0.200	0.00500	0.200	0	100	80	120			
Cobalt	0.201	0.00500	0.200	0	101	80	120			
Lead	0.193	0.00100	0.200	0	96.5	80	120			
Lithium	0.204	0.0100	0.200	0	102	80	120			
Molybdenum	0.199	0.00500	0.200	0	99.4	80	120			
Selenium	0.193	0.00500	0.200	0	96.7	80	120			
Thallium	0.189	0.00150	0.200	0	94.7	80	120			

Sample ID: **LCSD-116529** Batch ID: **116529** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 1:03:00 PM** Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.190	0.00250	0.200	0	95.2	80	120	0.585	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240802A

Sample ID: **LCSD-116529** Batch ID: **116529** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 1:03:00 PM** Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.196	0.00500	0.200	0	98.2	80	120	1.14	15	
Barium	0.192	0.0100	0.200	0	96.1	80	120	1.10	15	
Beryllium	0.205	0.00100	0.200	0	103	80	120	0.323	15	
Boron	0.209	0.0300	0.200	0	104	80	120	0.668	15	
Cadmium	0.193	0.00100	0.200	0	96.6	80	120	0.802	15	
Calcium	4.95	0.300	5.00	0	99.0	80	120	1.39	15	
Chromium	0.204	0.00500	0.200	0	102	80	120	1.94	15	
Cobalt	0.203	0.00500	0.200	0	101	80	120	0.803	15	
Lead	0.197	0.00100	0.200	0	98.6	80	120	2.14	15	
Lithium	0.209	0.0100	0.200	0	104	80	120	2.30	15	
Molybdenum	0.208	0.00500	0.200	0	104	80	120	4.40	15	
Selenium	0.193	0.00500	0.200	0	96.7	80	120	0.022	15	
Thallium	0.194	0.00150	0.200	0	96.9	80	120	2.34	15	

Sample ID: **2408009-01C SD** Batch ID: **116529** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 1:10:00 PM** Prep Date: **8/2/2024**

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	0.0488	0.0500	0	0.0514				5.16	20	
Beryllium	<0.00150	0.00500	0	0				0	20	
Boron	0.591	0.150	0	0.597				0.891	20	
Cadmium	<0.00150	0.00500	0	0				0	20	
Calcium	94.3	1.50	0	92.6				1.78	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	0.0956	0.0500	0	0.0841				12.8	20	
Molybdenum	<0.0100	0.0250	0	0.00240				0	20	
Selenium	<0.0100	0.0250	0	0				0	20	
Thallium	<0.00250	0.00750	0	0				0	20	

Sample ID: **2408009-01C PDS** Batch ID: **116529** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 1:29:00 PM** Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.188	0.00250	0.200	0	93.9	75	125			
Arsenic	0.197	0.00500	0.200	0	98.4	75	125			
Barium	0.243	0.0100	0.200	0.0514	96.0	75	125			
Beryllium	0.202	0.00100	0.200	0	101	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240802A

Sample ID: **2408009-01C PDS**	Batch ID: **116529**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS4_240802A**	Analysis Date: **8/2/2024 1:29:00 PM**	Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.723	0.0300	0.200	0.597	63.1	75	125			S
Cadmium	0.193	0.00100	0.200	0	96.4	75	125			
Calcium	92.0	0.300	5.00	92.6	-11.3	75	125			S
Chromium	0.203	0.00500	0.200	0	101	75	125			
Cobalt	0.196	0.00500	0.200	0	98.0	75	125			
Lead	0.195	0.00100	0.200	0	97.7	75	125			
Lithium	0.279	0.0100	0.200	0.0841	97.3	75	125			
Molybdenum	0.196	0.00500	0.200	0.00240	96.9	75	125			
Selenium	0.189	0.00500	0.200	0	94.3	75	125			
Thallium	0.222	0.00150	0.200	0	111	75	125			

Sample ID: **2408009-01C MS**	Batch ID: **116529**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS4_240802A**	Analysis Date: **8/2/2024 1:31:00 PM**	Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.3	75	125			
Arsenic	0.198	0.00500	0.200	0	99.2	75	125			
Barium	0.243	0.0100	0.200	0.0514	96.0	75	125			
Beryllium	0.198	0.00100	0.200	0	99.0	75	125			
Boron	0.784	0.0300	0.200	0.597	93.5	75	125			
Cadmium	0.189	0.00100	0.200	0	94.6	75	125			
Calcium	97.9	0.300	5.00	92.6	105	75	125			
Chromium	0.195	0.00500	0.200	0	97.6	75	125			
Cobalt	0.194	0.00500	0.200	0	97.1	75	125			
Lead	0.193	0.00100	0.200	0	96.7	75	125			
Lithium	0.282	0.0100	0.200	0.0841	98.7	75	125			
Molybdenum	0.215	0.00500	0.200	0.00240	107	75	125			
Selenium	0.192	0.00500	0.200	0	95.9	75	125			
Thallium	0.187	0.00150	0.200	0	93.5	75	125			

Sample ID: **2408009-01C MSD**	Batch ID: **116529**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS4_240802A**	Analysis Date: **8/2/2024 1:33:00 PM**	Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.195	0.00250	0.200	0	97.6	75	125	1.27	15	
Arsenic	0.200	0.00500	0.200	0	100	75	125	0.799	15	
Barium	0.248	0.0100	0.200	0.0514	98.1	75	125	1.66	15	
Beryllium	0.194	0.00100	0.200	0	97.0	75	125	1.99	15	
Boron	0.785	0.0300	0.200	0.597	94.3	75	125	0.206	15	
Cadmium	0.192	0.00100	0.200	0	95.9	75	125	1.38	15	
Calcium	98.5	0.300	5.00	92.6	118	75	125	0.652	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240802A

Sample ID: **2408009-01C MSD** Batch ID: **116529** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 1:33:00 PM** Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.197	0.00500	0.200	0	98.6	75	125	0.969	15	
Cobalt	0.194	0.00500	0.200	0	97.0	75	125	0.109	15	
Lead	0.193	0.00100	0.200	0	96.5	75	125	0.124	15	
Lithium	0.284	0.0100	0.200	0.0841	100	75	125	1.01	15	
Molybdenum	0.217	0.00500	0.200	0.00240	107	75	125	0.908	15	
Selenium	0.191	0.00500	0.200	0	95.4	75	125	0.546	15	
Thallium	0.188	0.00150	0.200	0	93.8	75	125	0.367	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240802A

Sample ID: **ICV-240802**	Batch ID: **R134420**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_240802A**	Analysis Date: **8/2/2024 9:51:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0981	0.00250	0.100	0	98.1	90	110			
Arsenic	0.0986	0.00500	0.100	0	98.6	90	110			
Barium	0.0984	0.0100	0.100	0	98.4	90	110			
Beryllium	0.100	0.00100	0.100	0	100	90	110			
Boron	0.0956	0.0300	0.100	0	95.6	90	110			
Cadmium	0.100	0.00100	0.100	0	100	90	110			
Calcium	2.57	0.300	2.50	0	103	90	110			
Chromium	0.102	0.00500	0.100	0	102	90	110			
Cobalt	0.102	0.00500	0.100	0	102	90	110			
Lead	0.101	0.00100	0.100	0	101	90	110			
Lithium	0.101	0.0100	0.100	0	101	90	110			
Molybdenum	0.108	0.00500	0.100	0	108	90	110			
Selenium	0.100	0.00500	0.100	0	100	90	110			
Thallium	0.0981	0.00150	0.100	0	98.1	90	110			

Sample ID: **LCVL-240802**	Batch ID: **R134420**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_240802A**	Analysis Date: **8/2/2024 10:00:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00188	0.00250	0.00200	0	93.8	80	120			
Arsenic	0.00489	0.00500	0.00500	0	97.7	80	120			
Barium	0.00480	0.0100	0.00500	0	96.0	80	120			
Beryllium	0.00112	0.00100	0.00100	0	112	80	120			
Boron	0.0172	0.0300	0.0200	0	85.8	80	120			
Cadmium	0.00102	0.00100	0.00100	0	102	80	120			
Calcium	0.0974	0.300	0.100	0	97.4	80	120			
Chromium	0.00505	0.00500	0.00500	0	101	80	120			
Cobalt	0.00508	0.00500	0.00500	0	102	80	120			
Lead	0.000937	0.00100	0.00100	0	93.7	80	120			
Lithium	0.0111	0.0100	0.0100	0	111	80	120			
Molybdenum	0.00574	0.00500	0.00500	0	115	80	120			
Selenium	0.00482	0.00500	0.00500	0	96.4	80	120			
Thallium	0.00112	0.00150	0.00100	0	112	80	120			

Sample ID: **CCV3-240802**	Batch ID: **R134420**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240802A**	Analysis Date: **8/2/2024 11:37:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.191	0.00250	0.200	0	95.5	90	110			
Arsenic	0.198	0.00500	0.200	0	98.9	90	110			
Barium	0.191	0.0100	0.200	0	95.6	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240802A

Sample ID: **CCV3-240802** Batch ID: **R134420** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 11:37:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.204	0.00100	0.200	0	102	90	110			
Boron	0.200	0.0300	0.200	0	100	90	110			
Cadmium	0.193	0.00100	0.200	0	96.4	90	110			
Calcium	4.97	0.300	5.00	0	99.4	90	110			
Chromium	0.204	0.00500	0.200	0	102	90	110			
Cobalt	0.202	0.00500	0.200	0	101	90	110			
Lead	0.196	0.00100	0.200	0	97.9	90	110			
Lithium	0.206	0.0100	0.200	0	103	90	110			
Molybdenum	0.199	0.00500	0.200	0	99.6	90	110			
Selenium	0.195	0.00500	0.200	0	97.5	90	110			
Thallium	0.191	0.00150	0.200	0	95.3	90	110			

Sample ID: **CCV4-240802** Batch ID: **R134420** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 1:38:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.193	0.00250	0.200	0	96.4	90	110			
Arsenic	0.194	0.00500	0.200	0	97.1	90	110			
Barium	0.191	0.0100	0.200	0	95.7	90	110			
Beryllium	0.199	0.00100	0.200	0	99.6	90	110			
Boron	0.211	0.0300	0.200	0	105	90	110			
Cadmium	0.195	0.00100	0.200	0	97.5	90	110			
Calcium	4.77	0.300	5.00	0	95.4	90	110			
Chromium	0.201	0.00500	0.200	0	101	90	110			
Cobalt	0.201	0.00500	0.200	0	100	90	110			
Lead	0.192	0.00100	0.200	0	95.8	90	110			
Lithium	0.205	0.0100	0.200	0	102	90	110			
Molybdenum	0.202	0.00500	0.200	0	101	90	110			
Selenium	0.192	0.00500	0.200	0	95.9	90	110			
Thallium	0.183	0.00150	0.200	0	91.4	90	110			

Sample ID: **CCV5-240802** Batch ID: **R134420** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS4_240802A** Analysis Date: **8/2/2024 2:17:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.188	0.00250	0.200	0	93.8	90	110			
Arsenic	0.191	0.00500	0.200	0	95.5	90	110			
Barium	0.186	0.0100	0.200	0	93.0	90	110			
Beryllium	0.202	0.00100	0.200	0	101	90	110			
Cadmium	0.191	0.00100	0.200	0	95.3	90	110			
Calcium	4.80	0.300	5.00	0	96.0	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240802A

Sample ID: **CCV5-240802**	Batch ID: **R134420**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240802A**	Analysis Date: **8/2/2024 2:17:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.201	0.00500	0.200	0	101	90	110			
Cobalt	0.200	0.00500	0.200	0	99.8	90	110			
Lead	0.190	0.00100	0.200	0	94.8	90	110			
Lithium	0.209	0.0100	0.200	0	104	90	110			
Molybdenum	0.197	0.00500	0.200	0	98.4	90	110			
Selenium	0.191	0.00500	0.200	0	95.7	90	110			

Sample ID: **CCV6-240802**	Batch ID: **R134420**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240802A**	Analysis Date: **8/2/2024 2:44:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.88	0.300	5.00	0	97.6	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240805C

Sample ID: **ICV-240805**	Batch ID: **R134451**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_240805C**	Analysis Date: **8/5/2024 12:35:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0962	0.0300	0.100	0	96.2	90	110			
Calcium	2.59	0.300	2.50	0	104	90	110			
Thallium	0.102	0.00150	0.100	0	102	90	110			

Sample ID: **LCVL-240805**	Batch ID: **R134451**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_240805C**	Analysis Date: **8/5/2024 12:45:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0208	0.0300	0.0200	0	104	80	120			
Calcium	0.0954	0.300	0.100	0	95.4	80	120			
Thallium	0.000904	0.00150	0.00100	0	90.4	80	120			

Sample ID: **CCV4-240805**	Batch ID: **R134451**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240805C**	Analysis Date: **8/5/2024 2:56:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.207	0.0300	0.200	0	104	90	110			
Calcium	4.96	0.300	5.00	0	99.3	90	110			
Thallium	0.203	0.00150	0.200	0	102	90	110			

Sample ID: **CCV5-240805**	Batch ID: **R134451**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240805C**	Analysis Date: **8/5/2024 3:18:00 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	4.94	0.300	5.00	0	98.8	90	110			
Thallium	0.196	0.00150	0.200	0	98.1	90	110			

Sample ID: **CCV6-240805**	Batch ID: **R134451**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240805C**	Analysis Date: **8/5/2024 3:30:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Thallium	0.197	0.00150	0.200	0	98.4	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240724B

Sample ID: **DCS3-116389** Batch ID: **116389** TestNo: **E300** Units: **mg/L**
SampType: **DCS3** Run ID: **IC2_240724B** Analysis Date: **7/24/2024 2:27:35 PM** Prep Date: **7/24/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	1.03	1.00	1.000	0	103	70	130	0	0	
Fluoride	0.460	0.400	0.4000	0	115	70	130	0	0	
Sulfate	3.06	3.00	3.000	0	102	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240801B

The QC data in batch 116527 applies to the following samples: 2408004-01B, 2408004-02B, 2408004-03B, 2408004-04B, 2408004-05B, 2408004-06B, 2408004-07B

Sample ID: **MB-116527** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC2_240801B** Analysis Date: **8/1/2024 12:52:44 PM** Prep Date: **8/1/2024**

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

Sample ID: **LCS-116527** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC2_240801B** Analysis Date: **8/1/2024 1:10:44 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.3	1.00	10.00	0	103	90	110			
Fluoride	4.22	0.400	4.000	0	105	90	110			

Sample ID: **LCSD-116527** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC2_240801B** Analysis Date: **8/1/2024 1:28:44 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.3	1.00	10.00	0	103	90	110	0.635	20	
Fluoride	4.25	0.400	4.000	0	106	90	110	0.648	20	

Sample ID: **2408006-01AMS** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_240801B** Analysis Date: **8/1/2024 6:19:16 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	385	10.0	200.0	212.8	85.9	90	110			S
Fluoride	197	4.00	200.0	0	98.7	90	110			

Sample ID: **2408006-01AMSD** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_240801B** Analysis Date: **8/1/2024 6:37:16 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	395	10.0	200.0	212.8	91.0	90	110	2.64	20	
Fluoride	203	4.00	200.0	0	101	90	110	2.69	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240801B

Sample ID: **ICV-240801**	Batch ID: **R134416**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_240801B**	Analysis Date: **8/1/2024 10:26:10 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	26.1	1.00	25.00	0	104	90	110			
Fluoride	10.9	0.400	10.00	0	109	90	110			

Sample ID: **CCV1-240801**	Batch ID: **R134416**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240801B**	Analysis Date: **8/1/2024 11:20:10 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.2	1.00	10.00	0	102	90	110			
Fluoride	4.20	0.400	4.000	0	105	90	110			

Sample ID: **CCV1-240801**	Batch ID: **R134416**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240801B**	Analysis Date: **8/1/2024 9:19:16 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			
Fluoride	4.26	0.400	4.000	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240801C

The QC data in batch 116527 applies to the following samples: 2408004-01B, 2408004-02B, 2408004-03B, 2408004-04B, 2408004-05B, 2408004-06B, 2408004-07B

Sample ID: **MB-116527** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC2_240801C** Analysis Date: **8/1/2024 12:52:44 PM** Prep Date: **8/1/2024**

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

Sample ID: **LCS-116527** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC2_240801C** Analysis Date: **8/1/2024 1:10:44 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	30.8	3.00	30.00	0	103	90	110			

Sample ID: **LCSD-116527** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC2_240801C** Analysis Date: **8/1/2024 1:28:44 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	31.0	3.00	30.00	0	103	90	110	0.528	20	

Sample ID: **2408006-01AMS** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_240801C** Analysis Date: **8/1/2024 6:19:16 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	385	10.0	200.0	212.8	85.9	90	110			S
Sulfate	240	30.0	200.0	46.45	96.7	90	110			

Sample ID: **2408006-01AMSD** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_240801C** Analysis Date: **8/1/2024 6:37:16 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	395	10.0	200.0	212.8	91.0	90	110	2.64	20	
Sulfate	248	30.0	200.0	46.45	101	90	110	3.44	20	

Sample ID: **2408004-01BMS** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_240801C** Analysis Date: **8/1/2024 11:25:16 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	305	10.0	200.0	119.6	92.9	90	110			
Sulfate	998	30.0	200.0	826.7	85.5	90	110			S

Sample ID: **2408004-01BMSD** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_240801C** Analysis Date: **8/1/2024 11:43:16 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240801C

Sample ID: **2408004-01BMSD** Batch ID: **116527** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_240801C** Analysis Date: **8/1/2024 11:43:16 PM** Prep Date: **8/1/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	305	10.0	200.0	119.6	92.6	90	110	0.214	20	
Sulfate	996	30.0	200.0	826.7	84.6	90	110	0.180	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240801C

Sample ID: **ICV-240801**	Batch ID: **R134436**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_240801C**	Analysis Date: **8/1/2024 10:26:10 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	26.1	1.00	25.00	0	104	90	110			
Sulfate	79.9	3.00	75.00	0	107	90	110			

Sample ID: **CCV1-240801**	Batch ID: **R134436**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240801C**	Analysis Date: **8/1/2024 11:20:10 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.2	1.00	10.00	0	102	90	110			
Sulfate	30.6	3.00	30.00	0	102	90	110			

Sample ID: **CCV2-240801**	Batch ID: **R134436**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240801C**	Analysis Date: **8/1/2024 9:19:16 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			
Sulfate	30.4	3.00	30.00	0	101	90	110			

Sample ID: **CCV3-240801**	Batch ID: **R134436**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240801C**	Analysis Date: **8/2/2024 2:07:16 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.2	1.00	10.00	0	102	90	110			
Sulfate	30.6	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240805A

Sample ID: **ICV-240805**	Batch ID: **R134446**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_240805A**	Analysis Date: **8/5/2024 4:58:49 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	24.7	1.00	25.00	0	98.7	90	110			
Fluoride	10.2	0.400	10.00	0	102	90	110			
Sulfate	75.1	3.00	75.00	0	100	90	110			

Sample ID: **CCV1-240805**	Batch ID: **R134446**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240805A**	Analysis Date: **8/5/2024 9:46:49 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.3	1.00	10.00	0	103	90	110			
Fluoride	4.30	0.400	4.000	0	107	90	110			
Sulfate	31.1	3.00	30.00	0	104	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: BBA Engineering
Work Order: 2408004
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: WC_240802C

The QC data in batch 116540 applies to the following samples: 2408004-01B, 2408004-02B, 2408004-03B, 2408004-04B, 2408004-05B, 2408004-06B, 2408004-07B

Sample ID: **MB-116540**	Batch ID: **116540**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_240802C**	Analysis Date: **8/2/2024 4:20:00 PM**	Prep Date: **8/2/2024**

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-116540**	Batch ID: **116540**	TestNo: **M2540C**	Units: **mg/L**
SampType: **LCS**	Run ID: **WC_240802C**	Analysis Date: **8/2/2024 4:20:00 PM**	Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	734	10.0	745.6	0	98.4	90	113			

Sample ID: **2408004-01B-DUP**	Batch ID: **116540**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_240802C**	Analysis Date: **8/2/2024 4:20:00 PM**	Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1570	50.0	0	1575				0.318	5	

Sample ID: **2408004-02B-DUP**	Batch ID: **116540**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_240802C**	Analysis Date: **8/2/2024 4:20:00 PM**	Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1630	50.0	0	1615				0.617	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: BBA Engineering
Work Order: 2408004
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

August 28, 2024

DHL Analytical, Inc.

Sample Delivery Group:	L1763886
Samples Received:	08/05/2024
Project Number:	2408004
Description:	

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

Entire Report Reviewed By:

Haley Torrence
Project Manager

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

TABLE OF CONTENTS

H-28 L1763886-01 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/29/24 12:50	08/05/24 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2345084	1	08/19/24 17:25	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2338032	1	08/07/24 12:09	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2338032	1	08/07/24 12:09	08/12/24 13:14	ZRG	Mt. Juliet, TN

H-29 L1763886-02 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/29/24 13:50	08/05/24 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2345084	1	08/19/24 17:25	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2338032	1	08/07/24 12:09	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2338032	1	08/07/24 12:09	08/09/24 10:52	ZRG	Mt. Juliet, TN

H-31 L1763886-03 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/29/24 15:00	08/05/24 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2345084	1	08/19/24 17:25	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2338032	1	08/07/24 12:09	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2338032	1	08/07/24 12:09	08/09/24 10:52	ZRG	Mt. Juliet, TN

H-33 L1763886-04 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/30/24 08:30	08/05/24 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2345084	1	08/19/24 17:25	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2338032	1	08/07/24 12:09	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2338032	1	08/07/24 12:09	08/09/24 10:52	ZRG	Mt. Juliet, TN

DUP-1 L1763886-05 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/30/24 08:30	08/05/24 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2345084	1	08/19/24 17:25	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2338032	1	08/07/24 12:09	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2338032	1	08/07/24 12:09	08/09/24 10:52	ZRG	Mt. Juliet, TN

H-26 L1763886-06 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				07/30/24 09:15	08/05/24 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2345084	1	08/19/24 17:25	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2338032	1	08/07/24 12:09	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2338032	1	08/07/24 12:09	08/09/24 10:52	ZRG	Mt. Juliet, TN

H-27 L1763886-07 Non-Potable Water

Collected by	Collected date/time	Received date/time
	07/30/24 10:20	08/05/24 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2345084	1	08/19/24 17:25	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2341253	1	08/13/24 11:26	08/22/24 19:43	ALG	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2341253	1	08/13/24 11:26	08/14/24 15:19	ZRG	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.

Haley Torrence

Haley Torrence
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.298	U	0.275	0.473	0.501	0.261	08/22/2024 19:43	WG2345084
(T) Barium	*121*					*30.0-143*	*08/22/2024 19:43*	WG2345084
(T) Yttrium	*103*					*30.0-136*	*08/22/2024 19:43*	WG2345084

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.188	U	0.321	0.531	08/22/2024 19:43	WG2338032

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.188		0.166	0.376	0.177	0.139	08/12/2024 13:14	WG2338032
(T) Barium-133	*102*					*30.0-143*	*08/12/2024 13:14*	WG2338032

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.629		0.269	0.467	0.465	0.243	08/22/2024 19:43	WG2345084
(T) Barium	*114*					*30.0-143*	*08/22/2024 19:43*	WG2345084
(T) Yttrium	*104*					*30.0-136*	*08/22/2024 19:43*	WG2345084

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.904		0.349	0.522	08/22/2024 19:43	WG2338032

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.275		0.222	0.486	0.238	0.176	08/09/2024 10:52	WG2338032
(T) Barium-133	*91.6*					*30.0-143*	*08/09/2024 10:52*	WG2338032

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.496	J	0.373	0.614	0.655	0.342	08/22/2024 19:43	WG2345084
(T) Barium	*88.8*					*30.0-143*	*08/22/2024 19:43*	WG2345084
(T) Yttrium	*76.6*					*30.0-136*	*08/22/2024 19:43*	WG2345084

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.06		0.501	0.727	08/22/2024 19:43	WG2338032

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.561		0.334	0.734	0.316	0.221	08/09/2024 10:52	WG2338032
(T) Barium-133	*89.7*					*30.0-143*	*08/09/2024 10:52*	WG2338032

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.274	J	0.246	0.446	0.434	0.227	08/22/2024 19:43	WG2345084
(T) Barium	*111*					*30.0-143*	*08/22/2024 19:43*	WG2345084
(T) Yttrium	*98.0*					*30.0-136*	*08/22/2024 19:43*	WG2345084

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.786		0.390	0.528	08/22/2024 19:43	WG2338032

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.512		0.303	0.662	0.301	0.203	08/09/2024 10:52	WG2338032
(T) Barium-133	*92.8*					*30.0-143*	*08/09/2024 10:52*	WG2338032

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.12		0.202	0.400	0.325	0.172	08/22/2024 19:43	WG2345084
(T) Barium	*115*					*30.0-143*	*08/22/2024 19:43*	WG2345084
(T) Yttrium	*109*					*30.0-136*	*08/22/2024 19:43*	WG2345084

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.70		0.361	0.418	08/22/2024 19:43	WG2338032

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.585		0.299	0.695	0.263	0.181	08/09/2024 10:52	WG2338032
(T) Barium-133	*90.4*					*30.0-143*	*08/09/2024 10:52*	WG2338032

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	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.924		0.275	0.474	0.467	0.244	08/22/2024 19:43	WG2345084
(T) Barium	*123*					*30.0-143*	*08/22/2024 19:43*	WG2345084
(T) Yttrium	*98.2*					*30.0-136*	*08/22/2024 19:43*	WG2345084

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.28		0.371	0.540	08/22/2024 19:43	WG2338032

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.352		0.249	0.540	0.272	0.185	08/09/2024 10:52	WG2338032
(T) Barium-133	*103*					*30.0-143*	*08/09/2024 10:52*	WG2338032

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.576		0.233	0.434	0.402	0.211	08/22/2024 19:43	WG2345084
(T) Barium	*118*					*30.0-143*	*08/22/2024 19:43*	WG2345084
(T) Yttrium	*97.0*					*30.0-136*	*08/22/2024 19:43*	WG2345084

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.80		0.638	0.480	08/22/2024 19:43	WG2341253

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	2.23		0.594	1.67	0.263	0.191	08/14/2024 15:19	WG2341253
(T) Barium-133	*89.2*					*30.0-143*	*08/14/2024 15:19*	WG2341253

Method Blank (MB)

(MB) R4112186-1 08/22/24 19:43

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.0948	U	0.176	0.320	0.168
(T) Barium	*132*		*132*		
(T) Yttrium	*85.0*		*85.0*		

L1764867-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1764867-02 08/22/24 19:43 • (DUP) R4112186-5 08/22/24 19:43

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.113	0.337	0.606	0.321	0.638	0.396	0.692	0.362	140	1.01	J	20	3
(T) Barium	*102*				*116*	*116*							
(T) Yttrium	*84.2*				*89.1*	*89.1*							

Laboratory Control Sample (LCS)

(LCS) R4112186-2 08/22/24 19:43

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.15	103	80.0-120	
(T) Barium			*123*		
(T) Yttrium			*97.4*		

L1763499-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1763499-03 08/22/24 19:43 • (MS) R4112186-3 08/22/24 19:43 • (MSD) R4112186-4 08/22/24 19:43

Analyte	Spike Amount Bq/l	Original Result Bq/l	MS Result Bq/l	MSD Result Bq/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	0.617	0.105	0.636	0.594	86.2	79.2	1	70.0-130			6.94		20
(T) Barium		*106*			*130*	*120*							
(T) Yttrium		*78.7*			*97.5*	*89.1*							

Method Blank (MB)

(MB) R4105971-1 08/09/24 10:52

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.0133	U	0.0336	0.0569	0.0352
(T) Barium-133	*87.8*		*87.8*		

L1763886-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1763886-06 08/09/24 10:52 • (DUP) R4105971-3 08/09/24 10:52

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.352	0.249	0.272	0.185	0.376	0.247	0.249	0.174	6.51	0.0676		20	3
(T) Barium-133	*103*				*105*	*105*							

Laboratory Control Sample (LCS)

(LCS) R4105971-2 08/09/24 10:52

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.73	94.7	75.0-125	
(T) Barium-133			*84.2*		

L1763886-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1763886-01 08/12/24 13:14 • (MS) R4105971-4 08/12/24 13:14 • (MSD) R4105971-5 08/12/24 13:14

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-226	20.0	0.188	15.3	15.3	75.6	75.3	1	75.0-125			0.393		20
(T) Barium-133		*102*			*100*	*101*							

Method Blank (MB)

(MB) R4107169-1 08/14/24 15:19

Analyte	MB Result	MB Qualifier	MB 2 sigma CE	MB MDA	MB Lc
	pCi/l		+ / -	pCi/l	pCi/l
Radium-226	0.0301	U	0.0593	0.0916	0.0579
(T) Barium-133	*84.7*		*84.7*		

L1763886-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1763886-07 08/14/24 15:19 • (DUP) R4107169-5 08/14/24 15:19

Analyte	Original Result	Original 2 sigma CE	Original MDA	Original Lc	DUP Result	DUP 2 sigma CE	DUP MDA	DUP Lc	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	pCi/l	+ / -	pCi/l	pCi/l	%			%	
Radium-226	2.23	0.594	0.263	0.191	0.599	0.315	0.216	0.170	115	2.42		20	3
(T) Barium-133	*89.2*				*76.5*	*76.5*							

Laboratory Control Sample (LCS)

(LCS) R4107169-2 08/14/24 15:19

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.00	5.04	101	75.0-125	
(T) Barium-133			*68.4*		

L1765479-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1765479-04 08/14/24 15:19 • (MS) R4107169-3 08/14/24 15:19 • (MSD) R4107169-4 08/14/24 15:19

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	1.14	18.6	20.6	87.1	97.2	1	75.0-125			10.3		20
(T) Barium-133		*89.3*			*69.0*	*104*							

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.

C075

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

CHAIN-OF-CUSTODY RECORD

Work Order: 2408004

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		
RA Screen <0.5 mR/hr:	Y N		

47635886

Subcontractor:

Pace Analytical
12065 Lebanon Rd
Mt. Juliet, TN 37122

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

01-Aug-24

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests					
					Ra-228	Ra-226				
					E904.0	M7500 Ra B M				
H-28	Aqueous	01C	07/29/24 12:50 PM	1LHDPEHNO3		1				]-01
H-28	Aqueous	01D	07/29/24 12:50 PM	1LHDPEHNO3	1					
H-29	Aqueous	02C	07/29/24 01:50 PM	1LHDPEHNO3		1				]-02
H-29	Aqueous	02D	07/29/24 01:50 PM	1LHDPEHNO3	1					
H-31	Aqueous	03C	07/29/24 03:00 PM	1LHDPEHNO3		1				]-03
H-31	Aqueous	03D	07/29/24 03:00 PM	1LHDPEHNO3	1					
H-33	Aqueous	04C	07/30/24 08:30 AM	1LHDPEHNO3		1				]-04
H-33	Aqueous	04D	07/30/24 08:30 AM	1LHDPEHNO3	1					
DUP-1	Aqueous	05C	07/30/24 08:30 AM	1LHDPEHNO3		1				]-05
DUP-1	Aqueous	05D	07/30/24 08:30 AM	1LHDPEHNO3	1					
H-26	Aqueous	06C	07/30/24 09:15 AM	1LHDPEHNO3		1				]-06
H-26	Aqueous	06D	07/30/24 09:15 AM	1LHDPEHNO3	1					
H-27	Aqueous	07C	07/30/24 10:20 AM	1LHDPEHNO3		1				]-07
H-27	Aqueous	07D	07/30/24 10:20 AM	1LHDPEHNO3	1					

General Comments:

Please analyze these samples with a Standard Turnaround Time.
Quality Control Package Needed: Standard - SEND PDF & Excel EDD Please
EMAIL report to both cac@dhlanalytical.com & dupont@dhlanalytical.com
Call John DuPont if you have questions.

	Date/Time		Date/Time
Relinquished by:	8/1/24 1700	**Received by:**	8/5/24 1000
Relinquished by:		**Received by:**	

LT638826

Tracking Numbers	Temperature
1Z 970 R40 03 1776 9185	TDA9 Amb
1Z 970 R40 03 1924 8993	TDA9 Amb

Name

Date

September 09, 2024

Will Vienne
BBA Engineering
165 N. Lampasas St.
Bertram, TX 78605
TEL: (512) 355-9198
FAX:

Order No.: 2408086

RE: MLSES-ASH PONDS-CCR

Dear Will Vienne:

DHL Analytical, Inc. received 1 sample(s) on 8/8/2024 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 - TX-C24-00120

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: BBA
ADDRESS: 165 N. LAMPASAS ST, BERTRAM, TX
PHONE: EMAIL:
DATA REPORTED TO: WILL VIENNE
ADDITIONAL REPORT COPIES TO:

DATE: 8-7-24
PO#: 23643V-16

LAB USE ONLY
DHL WORKORDER #: 2408086

PROJECT LOCATION OR NAME: MLSES - ASH PONDS - CCR
CLIENT PROJECT # 23643V-16 COLLECTOR: JOHN BRAYTON

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

W=WATER L=LIQUID S=SOLID 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 ☐	H_3PO_4 ☐	HNO_3	H_2SO_4	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		FIELD NOTES
H-32	01	8-6-24	1610	W	P	4			X				X																				X	X		

Relinquished By: (Sign) DATE/TIME 8-7-24 1700 Received by: Fedex
Relinquished By: (Sign) DATE/TIME 8/8/24 0839 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 _____ ☐

LAB USE ONLY **THERMO #:**
RECEIVING TEMP (°C): 2.6°C, 3.0°C 78
IF >6°C, ARE SAMPLES ON ICE AND JUST COLLECTED? YES / NO
CUSTODY SEALS ON ICE CHEST: ☐ BROKEN ☑ INTACT ☐ NOT USED
CARRIER: ☐ LSO ☑ FEDEX ☐ UPS ☐ COURIER ☐ HAND DELIVERED

☐ DHL DISPOSAL @ $10.00 each

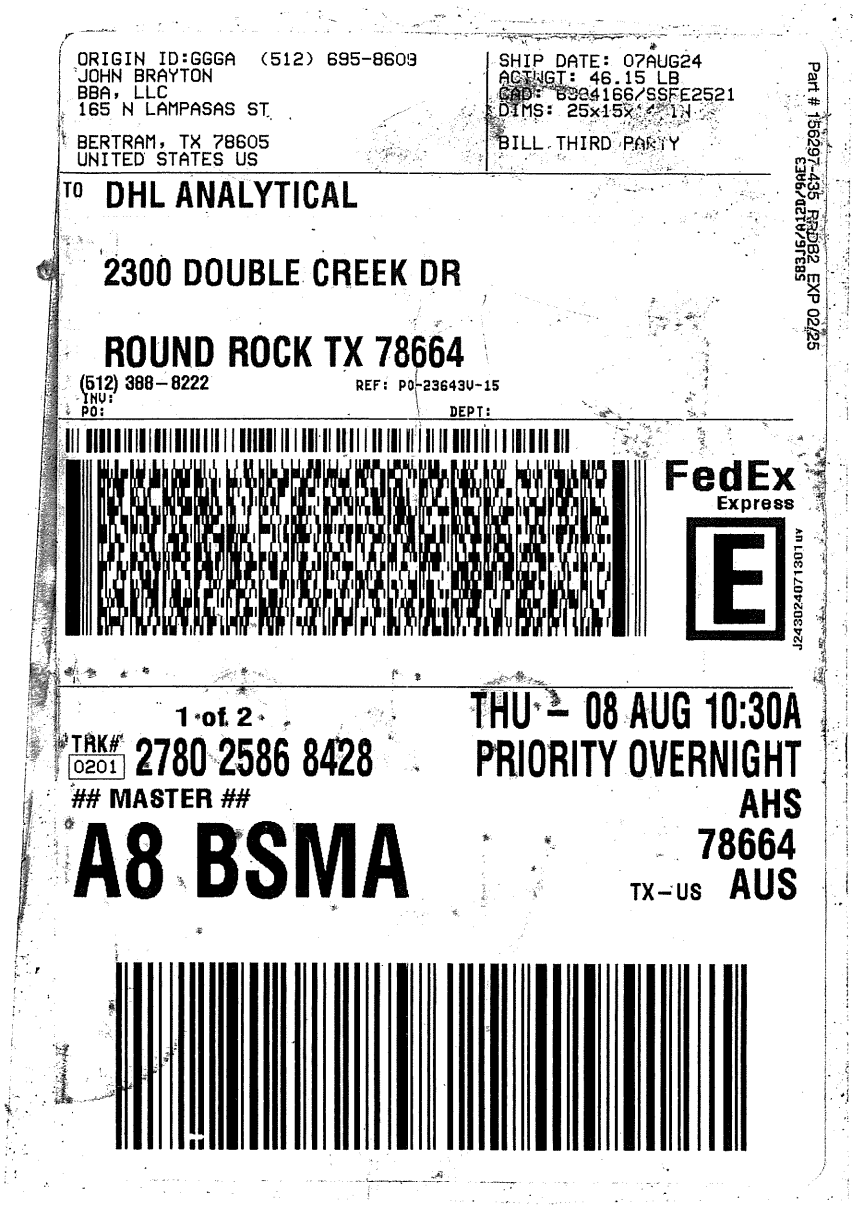
Eric Lau

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) 695-8609
JOHN BRAYTON
BBA, LLC
165 N LAMPASAS ST

BERTRAM, TX 78605
UNITED STATES US

SHIP DATE: 07AUG24
ACTWGT: 46.15 LB
CAD: 6984166/SSFE2521
DIMS: 25x15x[illegible] IN

BILL THIRD PARTY

Part # 156297-435 RRDB2 EXP 02/25

TO DHL ANALYTICAL

2300 DOUBLE CREEK DR

ROUND ROCK TX 78664

(512) 388-8222 REF: PO-23643V-15

INV:
PO: DEPT:

FedEx Express

1 of 2

TRK# 0201 2780 2586 8428

MASTER

A8 BSMA

THU - 08 AUG 10:30A
PRIORITY OVERNIGHT
AHS
78664
TX-US AUS

DHL ANALYTICAL

CUSTODY SEAL
DATE 8.1.24
SIGNATURE

ORIGIN ID:GGGA (512) 695-8609
JOHN BRAYTON
BBA, LLC
165 N LAMPASAS ST

BERTRAM, TX 78605
UNITED STATES US

SHIP DATE: 07AUG24
ACTWGT: 47.90 LB
CAD: 6994166/SSFE2521
DIMS: 25x15x14 IN

BILL THIRD PARTY

TO **DHL ANALYTICAL**

2300 DOUBLE CREEK DR

ROUND ROCK TX 78664

(512) 388-8222 REF: PO-23643V-15
INV:
PO: DEPT:

RT 512 1 10:30 C
FZ
8439
08.08

FedEx Express

E

J243024071301uv

2 of 2
MPS# 0263 **2780 2586 8439**
Mstr# 2780 2586 8428 0201

THU – 08 AUG 10:30A
PRIORITY OVERNIGHT

A8 BSMA

78664
TX-US **AUS**

Part # 156297-435 RIT2 EXP 02/25

DHL ANALYTICAL

CUSTODY SEAL

DATE 8-7-24

SIGNATURE [signature]

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name: **BBA Engineering**

Date Received: **8/8/2024**

Work Order Number: **2408086**

Received by: **KAO**

Checklist completed by: _____ 8/8/2024 (Signature / Date)

Reviewed by: SW 8/8/2024 (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 ☐	
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 SM
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	

Cooler #	1	2
Temp °C	2.6	3.0
Seal Intact	Y	Y

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:** 9/9/24
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2408086
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:** 9/9/24
Reviewer Name: Carlos Castro	**Laboratory Work Order:** 2408086
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 May 30 - June 2, 2023. 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

09/09/24
Date

Name: Dr. Derhsing Luu
Official Title: Technical Director

DHL Analytical, Inc.

Date: *09-Sep-24*

CLIENT: BBA Engineering
Project: MLSES-ASH PONDS-CCR
Lab Order: 2408086

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 SM7500 Ra B M. Analyzed at Pace Analytical.

Exception Report R1-01

The sample was received and log-in performed on 8/8/24. A total of 1 sample was received. The sample arrived in good condition and was properly packaged.

Exception Report R7-03

For Anions analysis performed on 8/9/24 the matrix spike and matrix spike duplicate recoveries (2408086-01 MS/MSD) were slightly below control limits for Sulfate. This was due to matrix effect. These are flagged accordingly in the QC summary report. The sample selected for the matrix spike and matrix spike duplicate (2408086-01 MS/MSD) was from this work order. The LCS was within control limits for this analyte. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *09-Sep-24*

CLIENT: BBA Engineering
Project: MLSES-ASH PONDS-CCR
Lab Order: 2408086

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2408086-01	H-32		08/06/24 04:10 PM	08/08/2024

Lab Order: 2408086
Client: BBA Engineering
Project: MLSES-ASH PONDS-CCR

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2408086-01A	H-32	08/06/24 04:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/09/24 07:23 AM	116631
	H-32	08/06/24 04:10 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	08/09/24 07:23 AM	116631
	H-32	08/06/24 04:10 PM	Aqueous	SW7470A	Mercury Aq Prep	08/09/24 12:14 PM	116645
2408086-01B	H-32	08/06/24 04:10 PM	Aqueous	E300	Anion Preparation	08/09/24 01:53 PM	116647
	H-32	08/06/24 04:10 PM	Aqueous	E300	Anion Preparation	08/09/24 01:53 PM	116647
	H-32	08/06/24 04:10 PM	Aqueous	E300	Anion Preparation	08/09/24 01:53 PM	116647
	H-32	08/06/24 04:10 PM	Aqueous	M2540C	TDS Preparation	08/12/24 02:57 PM	116687

Lab Order: 2408086
Client: BBA Engineering
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
2408086-01A	H-32	Aqueous	SW7470A	Mercury Total: Aqueous	116645	1	08/12/24 10:41 AM	CETAC2_HG_240812B
	H-32	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116631	1	08/12/24 11:15 AM	ICP-MS5_240812A
	H-32	Aqueous	SW6020B	Total Metals: ICP-MS - Water	116631	20	08/12/24 04:13 PM	ICP-MS4_240812B
2408086-01B	H-32	Aqueous	E300	Anions by IC method - Water	116647	10	08/11/24 04:41 AM	IC2_240809A
	H-32	Aqueous	E300	Anions by IC method - Water	116647	1	08/10/24 04:45 AM	IC2_240809A
	H-32	Aqueous	E300	Anions by IC method - Water	116647	10	08/09/24 08:03 PM	IC2_240809A
	H-32	Aqueous	M2540C	Total Dissolved Solids	116687	1	08/12/24 05:30 PM	WC_240812B

DHL Analytical, Inc.

Date: *09-Sep-24*

CLIENT:	BBA Engineering	**Client Sample ID:**	H-32
Project:	MLSES-ASH PONDS-CCR	**Lab ID:**	2408086-01
Project No:	23643V-16	**Collection Date:**	08/06/24 04:10 PM
Lab Order:	2408086	**Matrix:**	AQUEOUS

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
TOTAL METALS: ICP-MS - WATER		**SW6020B**					Analyst: **SP**
Antimony	<0.000800	0.000800	0.00250		mg/L	1	08/12/24 11:15 AM
Arsenic	<0.00200	0.00200	0.00500		mg/L	1	08/12/24 11:15 AM
Barium	0.0172	0.00300	0.0100		mg/L	1	08/12/24 11:15 AM
Beryllium	0.00540	0.000300	0.00100		mg/L	1	08/12/24 11:15 AM
Boron	7.57	0.200	0.600		mg/L	20	08/12/24 04:13 PM
Cadmium	0.00163	0.000300	0.00100		mg/L	1	08/12/24 11:15 AM
Calcium	109	2.00	6.00		mg/L	20	08/12/24 04:13 PM
Chromium	<0.00200	0.00200	0.00500		mg/L	1	08/12/24 11:15 AM
Cobalt	0.208	0.00300	0.00500		mg/L	1	08/12/24 11:15 AM
Lead	0.00120	0.000300	0.00100		mg/L	1	08/12/24 11:15 AM
Lithium	0.182	0.00500	0.0100		mg/L	1	08/12/24 11:15 AM
Molybdenum	<0.00200	0.00200	0.00500		mg/L	1	08/12/24 11:15 AM
Selenium	<0.00200	0.00200	0.00500		mg/L	1	08/12/24 11:15 AM
Thallium	<0.000500	0.000500	0.00150		mg/L	1	08/12/24 11:15 AM
MERCURY TOTAL: AQUEOUS		**SW7470A**					Analyst: **CMC**
Mercury	<0.0000800	0.0000800	0.000200		mg/L	1	08/12/24 10:41 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **KES**
Chloride	122	3.00	10.0		mg/L	10	08/11/24 04:41 AM
Fluoride	<0.100	0.100	0.400		mg/L	1	08/10/24 04:45 AM
Sulfate	924	10.0	30.0		mg/L	10	08/11/24 04:41 AM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **KER**
Total Dissolved Solids (Residue, Filterable)	1660	50.0	50.0		mg/L	1	08/12/24 05:30 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

CLIENT: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_240711A

Sample ID: **DCS-116189** Batch ID: **116189** TestNo: **SW7470A** Units: **mg/L**
SampType: **DCS** Run ID: **CETAC2_HG_240711A** Analysis Date: **7/11/2024 11:37:36 AM** Prep Date: **7/11/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.000194	0.000200	0.000200	0	97.0	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_240812B

The QC data in batch 116645 applies to the following samples: 2408086-01A

Sample ID: **MB-116645**	Batch ID: **116645**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MBLK**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 9:56:04 AM**	Prep Date: **8/9/2024**

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

Sample ID: **LCS-116645**	Batch ID: **116645**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCS**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 10:00:35 AM**	Prep Date: **8/9/2024**

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			

Sample ID: **LCSD-116645**	Batch ID: **116645**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **LCSD**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 10:02:51 AM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00197	0.000200	0.00200	0	98.5	85	115	1.01	15	

Sample ID: **2408080-01AMS**	Batch ID: **116645**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MS**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 10:09:39 AM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00990	0.00100	0.0100	0	99.0	80	120			

Sample ID: **2408080-01AMSD**	Batch ID: **116645**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **MSD**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 10:11:55 AM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0101	0.00100	0.0100	0	101	80	120	2.00	15	

Sample ID: **2408080-01APDS**	Batch ID: **116645**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **PDS**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 10:14:11 AM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0125	0.00100	0.0125	0	99.6	85	115			

Sample ID: **2408080-01ASD**	Batch ID: **116645**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **SD**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 10:16:27 AM**	Prep Date: **8/9/2024**

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

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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: CETAC2_HG_240812B

Sample ID: **ICV-240812**	Batch ID: **R134565**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **ICV**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 9:26:30 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00399	0.000200	0.00400	0	99.8	90	110			

Sample ID: **CCV1-240812**	Batch ID: **R134565**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 9:51:29 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00214	0.000200	0.00200	0	107	90	110			

Sample ID: **CCV2-240812**	Batch ID: **R134565**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 10:36:56 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00203	0.000200	0.00200	0	102	90	110			

Sample ID: **CCV3-240812**	Batch ID: **R134565**	TestNo: **SW7470A**	Units: **mg/L**
SampType: **CCV**	Run ID: **CETAC2_HG_240812B**	Analysis Date: **8/12/2024 11:04:20 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.00210	0.000200	0.00200	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240606B

Sample ID: **DCS2-115670**	Batch ID: **115670**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS2**	Run ID: **ICP-MS4_240606B**	Analysis Date: **6/6/2024 9:52:00 AM**	Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.270	0.300	0.300	0	90.2	70	130	0	0	

Sample ID: **DCS4-115670**	Batch ID: **115670**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS4**	Run ID: **ICP-MS4_240606B**	Analysis Date: **6/6/2024 9:57:00 AM**	Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0298	0.0300	0.0300	0	99.4	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240812B

The QC data in batch 116631 applies to the following samples: 2408086-01A

Sample ID: **MB-116631**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MBLK**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 3:13:00 PM**	Prep Date: **8/9/2024**

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

Sample ID: **LCS-116631**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCS**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 3:15:00 PM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.201	0.0300	0.200	0	101	80	120			

Sample ID: **LCSD-116631**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCSD**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 3:17:00 PM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.197	0.0300	0.200	0	98.5	80	120	2.18	15	

Sample ID: **2408084-01A SD**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 3:23:00 PM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.323	0.150	0	0.299				7.68	20	

Sample ID: **2408084-01A PDS**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 3:43:00 PM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.453	0.0300	0.200	0.299	77.1	75	125			

Sample ID: **2408084-01A MS**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 3:45:00 PM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.487	0.0300	0.200	0.299	94.1	75	125			

Sample ID: **2408084-01A MSD**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 3:47:00 PM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.487	0.0300	0.200	0.299	94.1	75	125	0.009	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_240812B

Sample ID: **ICV-240812**	Batch ID: **R134583**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 1:14:00 PM**	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	2.50	0.300	2.50	0	100	90	110			

Sample ID: **LCVL-240812**	Batch ID: **R134583**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 1:25:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.0223	0.0300	0.0200	0	111	80	120			
Calcium	0.0954	0.300	0.100	0	95.4	80	120			

Sample ID: **CCV3-240812**	Batch ID: **R134583**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 3:09:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.195	0.0300	0.200	0	97.3	90	110			

Sample ID: **CCV4-240812**	Batch ID: **R134583**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 3:49:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Boron	0.195	0.0300	0.200	0	97.7	90	110			
Calcium	4.85	0.300	5.00	0	97.0	90	110			

Sample ID: **CCV5-240812**	Batch ID: **R134583**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS4_240812B**	Analysis Date: **8/12/2024 4:18:00 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	4.82	0.300	5.00	0	96.5	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240606A

Sample ID: **DCS1-115670**	Batch ID: **115670**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS**	Run ID: **ICP-MS5_240606A**	Analysis Date: **6/6/2024 10:16:00 AM**	Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.000866	0.00250	0.00100	0	86.6	70	130	0	0	
Beryllium	0.000511	0.00100	0.000500	0	102	70	130	0	0	
Cadmium	0.000503	0.00100	0.000500	0	101	70	130	0	0	
Lead	0.000485	0.00100	0.000500	0	97.0	70	130	0	0	
Thallium	0.000538	0.00150	0.000500	0	108	70	130	0	0	

Sample ID: **DCS2-115670**	Batch ID: **115670**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS2**	Run ID: **ICP-MS5_240606A**	Analysis Date: **6/6/2024 10:20:00 AM**	Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	0.301	0.300	0.300	0	100	70	130	0	0	

Sample ID: **DCS3-115670**	Batch ID: **115670**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **DCS3**	Run ID: **ICP-MS5_240606A**	Analysis Date: **6/6/2024 10:22:00 AM**	Prep Date: **6/5/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00487	0.00500	0.00500	0	97.4	70	130	0	0	
Barium	0.00503	0.0100	0.00500	0	101	70	130	0	0	
Chromium	0.00496	0.00500	0.00500	0	99.2	70	130	0	0	
Cobalt	0.00489	0.00500	0.00500	0	97.8	70	130	0	0	
Lithium	0.00467	0.0100	0.00500	0	93.4	70	130	0	0	
Molybdenum	0.00496	0.00500	0.00500	0	99.3	70	130	0	0	
Selenium	0.00461	0.00500	0.00500	0	92.2	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240812A

The QC data in batch 116631 applies to the following samples: 2408086-01A

Sample ID: **MB-116631** Batch ID: **116631** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_240812A** Analysis Date: **8/12/2024 10:00:00 AM** Prep Date: **8/9/2024**

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-116631** Batch ID: **116631** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_240812A** Analysis Date: **8/12/2024 10:02:00 AM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.197	0.00250	0.200	0	98.4	80	120			
Arsenic	0.201	0.00500	0.200	0	100	80	120			
Barium	0.199	0.0100	0.200	0	99.7	80	120			
Beryllium	0.198	0.00100	0.200	0	99.0	80	120			
Cadmium	0.197	0.00100	0.200	0	98.7	80	120			
Calcium	4.92	0.300	5.00	0	98.4	80	120			
Chromium	0.197	0.00500	0.200	0	98.6	80	120			
Cobalt	0.201	0.00500	0.200	0	100	80	120			
Lead	0.197	0.00100	0.200	0	98.4	80	120			
Lithium	0.196	0.0100	0.200	0	97.8	80	120			
Molybdenum	0.191	0.00500	0.200	0	95.5	80	120			
Selenium	0.204	0.00500	0.200	0	102	80	120			
Thallium	0.193	0.00150	0.200	0	96.5	80	120			

Sample ID: **LCSD-116631** Batch ID: **116631** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_240812A** Analysis Date: **8/12/2024 10:05:00 AM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.198	0.00250	0.200	0	98.8	80	120	0.435	15	
Arsenic	0.203	0.00500	0.200	0	101	80	120	0.900	15	
Barium	0.199	0.0100	0.200	0	99.3	80	120	0.339	15	
Beryllium	0.201	0.00100	0.200	0	100	80	120	1.34	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240812A

Sample ID: **LCSD-116631**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCSD**	Run ID: **ICP-MS5_240812A**	Analysis Date: **8/12/2024 10:05:00 AM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.200	0.00100	0.200	0	100	80	120	1.53	15	
Calcium	4.88	0.300	5.00	0	97.6	80	120	0.865	15	
Chromium	0.196	0.00500	0.200	0	98.1	80	120	0.506	15	
Cobalt	0.202	0.00500	0.200	0	101	80	120	0.900	15	
Lead	0.198	0.00100	0.200	0	98.9	80	120	0.446	15	
Lithium	0.197	0.0100	0.200	0	98.7	80	120	0.849	15	
Molybdenum	0.192	0.00500	0.200	0	96.1	80	120	0.660	15	
Selenium	0.207	0.00500	0.200	0	104	80	120	1.48	15	
Thallium	0.194	0.00150	0.200	0	97.0	80	120	0.575	15	

Sample ID: **2408084-01A SD**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS5_240812A**	Analysis Date: **8/12/2024 10:13:00 AM**	Prep Date: **8/9/2024**

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	0.0947	0.0500	0	0.0931				1.65	20	
Beryllium	<0.00150	0.00500	0	0				0	20	
Cadmium	<0.00150	0.00500	0	0				0	20	
Calcium	7.83	1.50	0	7.81				0.229	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	<0.0250	0.0500	0	0.0171				0	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: **2408084-01A PDS**	Batch ID: **116631**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_240812A**	Analysis Date: **8/12/2024 10:40:00 AM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.172	0.00250	0.200	0	85.9	75	125			
Arsenic	0.190	0.00500	0.200	0	95.2	75	125			
Barium	0.288	0.0100	0.200	0.0931	97.6	75	125			
Beryllium	0.202	0.00100	0.200	0	101	75	125			
Cadmium	0.202	0.00100	0.200	0	101	75	125			
Calcium	12.4	0.300	5.00	7.81	91.4	75	125			
Chromium	0.202	0.00500	0.200	0	101	75	125			
Cobalt	0.198	0.00500	0.200	0	98.8	75	125			
Lead	0.197	0.00100	0.200	0	98.3	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240812A

Sample ID: **2408084-01A PDS** Batch ID: **116631** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_240812A** Analysis Date: **8/12/2024 10:40:00 AM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lithium	0.224	0.0100	0.200	0.0171	103	75	125			
Molybdenum	0.190	0.00500	0.200	0	94.8	75	125			
Selenium	0.202	0.00500	0.200	0	101	75	125			
Thallium	0.194	0.00150	0.200	0	97.2	75	125			

Sample ID: **2408084-01A MS** Batch ID: **116631** TestNo: **SW6020B** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_240812A** Analysis Date: **8/12/2024 10:43:00 AM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.202	0.00250	0.200	0	101	75	125			
Arsenic	0.195	0.00500	0.200	0	97.7	75	125			
Barium	0.293	0.0100	0.200	0.0931	100	75	125			
Beryllium	0.201	0.00100	0.200	0	100	75	125			
Cadmium	0.201	0.00100	0.200	0	101	75	125			
Calcium	12.9	0.300	5.00	7.81	101	75	125			
Chromium	0.200	0.00500	0.200	0	100	75	125			
Cobalt	0.199	0.00500	0.200	0	99.7	75	125			
Lead	0.196	0.00100	0.200	0	98.0	75	125			
Lithium	0.220	0.0100	0.200	0.0171	101	75	125			
Molybdenum	0.194	0.00500	0.200	0	96.8	75	125			
Selenium	0.204	0.00500	0.200	0	102	75	125			
Thallium	0.193	0.00150	0.200	0	96.6	75	125			

Sample ID: **2408084-01A MSD** Batch ID: **116631** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_240812A** Analysis Date: **8/12/2024 10:46:00 AM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.198	0.00250	0.200	0	99.2	75	125	1.85	15	
Arsenic	0.194	0.00500	0.200	0	96.9	75	125	0.822	15	
Barium	0.291	0.0100	0.200	0.0931	99.1	75	125	0.654	15	
Beryllium	0.198	0.00100	0.200	0	98.8	75	125	1.48	15	
Cadmium	0.200	0.00100	0.200	0	99.8	75	125	0.737	15	
Calcium	12.8	0.300	5.00	7.81	99.6	75	125	0.588	15	
Chromium	0.199	0.00500	0.200	0	99.5	75	125	0.502	15	
Cobalt	0.198	0.00500	0.200	0	99.2	75	125	0.451	15	
Lead	0.195	0.00100	0.200	0	97.6	75	125	0.393	15	
Lithium	0.216	0.0100	0.200	0.0171	99.4	75	125	1.76	15	
Molybdenum	0.194	0.00500	0.200	0	97.1	75	125	0.370	15	
Selenium	0.201	0.00500	0.200	0	101	75	125	1.54	15	
Thallium	0.193	0.00150	0.200	0	96.4	75	125	0.257	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240812A

Sample ID: **ICV-240812**	Batch ID: **R134574**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS5_240812A**	Analysis Date: **8/12/2024 9:46:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.100	0.00250	0.100	0	100	90	110			
Arsenic	0.102	0.00500	0.100	0	102	90	110			
Barium	0.100	0.0100	0.100	0	100	90	110			
Beryllium	0.100	0.00100	0.100	0	100	90	110			
Cadmium	0.104	0.00100	0.100	0	104	90	110			
Calcium	2.45	0.300	2.50	0	98.1	90	110			
Chromium	0.101	0.00500	0.100	0	101	90	110			
Cobalt	0.103	0.00500	0.100	0	103	90	110			
Lead	0.0993	0.00100	0.100	0	99.3	90	110			
Lithium	0.0996	0.0100	0.100	0	99.6	90	110			
Molybdenum	0.0953	0.00500	0.100	0	95.3	90	110			
Selenium	0.105	0.00500	0.100	0	105	90	110			
Thallium	0.0967	0.00150	0.100	0	96.7	90	110			

Sample ID: **LCVL-240812**	Batch ID: **R134574**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS5_240812A**	Analysis Date: **8/12/2024 9:51:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.00201	0.00250	0.00200	0	101	80	120			
Arsenic	0.00502	0.00500	0.00500	0	100	80	120			
Barium	0.00502	0.0100	0.00500	0	100	80	120			
Beryllium	0.00103	0.00100	0.00100	0	103	80	120			
Cadmium	0.00100	0.00100	0.00100	0	100	80	120			
Calcium	0.0928	0.300	0.100	0	92.8	80	120			
Chromium	0.00515	0.00500	0.00500	0	103	80	120			
Cobalt	0.00510	0.00500	0.00500	0	102	80	120			
Lead	0.00101	0.00100	0.00100	0	101	80	120			
Lithium	0.0102	0.0100	0.0100	0	102	80	120			
Molybdenum	0.00500	0.00500	0.00500	0	100	80	120			
Selenium	0.00531	0.00500	0.00500	0	106	80	120			
Thallium	0.000989	0.00150	0.00100	0	98.9	80	120			

Sample ID: **CCV1-240812**	Batch ID: **R134574**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_240812A**	Analysis Date: **8/12/2024 10:49:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.201	0.00250	0.200	0	101	90	110			
Arsenic	0.205	0.00500	0.200	0	103	90	110			
Barium	0.200	0.0100	0.200	0	100	90	110			
Beryllium	0.200	0.00100	0.200	0	100	90	110			
Cadmium	0.204	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_240812A

Sample ID: **CCV1-240812** Batch ID: **R134574** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_240812A** Analysis Date: **8/12/2024 10:49:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	4.86	0.300	5.00	0	97.2	90	110			
Chromium	0.200	0.00500	0.200	0	100	90	110			
Cobalt	0.206	0.00500	0.200	0	103	90	110			
Lead	0.199	0.00100	0.200	0	99.3	90	110			
Lithium	0.200	0.0100	0.200	0	99.9	90	110			
Molybdenum	0.195	0.00500	0.200	0	97.6	90	110			
Selenium	0.214	0.00500	0.200	0	107	90	110			
Thallium	0.195	0.00150	0.200	0	97.6	90	110			

Sample ID: **CCV2-240812** Batch ID: **R134574** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_240812A** Analysis Date: **8/12/2024 11:20:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.201	0.00250	0.200	0	101	90	110			
Arsenic	0.203	0.00500	0.200	0	101	90	110			
Barium	0.200	0.0100	0.200	0	99.9	90	110			
Beryllium	0.198	0.00100	0.200	0	98.9	90	110			
Cadmium	0.204	0.00100	0.200	0	102	90	110			
Chromium	0.201	0.00500	0.200	0	100	90	110			
Cobalt	0.207	0.00500	0.200	0	103	90	110			
Lead	0.198	0.00100	0.200	0	98.8	90	110			
Lithium	0.199	0.0100	0.200	0	99.3	90	110			
Molybdenum	0.197	0.00500	0.200	0	98.3	90	110			
Selenium	0.218	0.00500	0.200	0	109	90	110			
Thallium	0.193	0.00150	0.200	0	96.7	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240802A

Sample ID: **DCS3-116551** Batch ID: **116551** TestNo: **E300** Units: **mg/L**
SampType: **DCS3** Run ID: **IC2_240802A** Analysis Date: **8/2/2024 6:07:17 PM** Prep Date: **8/2/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	0.986	1.00	1.000	0	98.6	70	130	0	0	
Fluoride	0.418	0.400	0.4000	0	105	70	130	0	0	
Sulfate	2.96	3.00	3.000	0	98.8	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240809A

The QC data in batch 116647 applies to the following samples: 2408086-01B

Sample ID: **MB-116647** Batch ID: **116647** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC2_240809A** Analysis Date: **8/9/2024 2:06:12 PM** Prep Date: **8/9/2024**

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-116647** Batch ID: **116647** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC2_240809A** Analysis Date: **8/9/2024 2:24:12 PM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.95	1.00	10.00	0	99.5	90	110			
Fluoride	4.12	0.400	4.000	0	103	90	110			
Sulfate	30.1	3.00	30.00	0	100	90	110			

Sample ID: **2408085-01BMS** Batch ID: **116647** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_240809A** Analysis Date: **8/9/2024 7:27:53 PM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	224	10.0	200.0	29.42	97.4	90	110			
Fluoride	209	4.00	200.0	0	104	90	110			
Sulfate	226	30.0	200.0	32.89	96.3	90	110			

Sample ID: **2408085-01BMSD** Batch ID: **116647** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC2_240809A** Analysis Date: **8/9/2024 7:45:54 PM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	224	10.0	200.0	29.42	97.3	90	110	0.044	20	
Fluoride	209	4.00	200.0	0	105	90	110	0.228	20	
Sulfate	226	30.0	200.0	32.89	96.4	90	110	0.079	20	

Sample ID: **LCSD-116647** Batch ID: **116647** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC2_240809A** Analysis Date: **8/11/2024 3:29:04 AM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110	1.71	20	
Fluoride	4.26	0.400	4.000	0	107	90	110	3.52	20	
Sulfate	30.6	3.00	30.00	0	102	90	110	1.69	20	

Sample ID: **2408086-01BMS** Batch ID: **116647** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC2_240809A** Analysis Date: **8/11/2024 4:59:04 AM** Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240809A

Sample ID: **2408086-01BMS**	Batch ID: **116647**	TestNo: **E300**	Units: **mg/L**
SampType: **MS**	Run ID: **IC2_240809A**	Analysis Date: **8/11/2024 4:59:04 AM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	320	10.0	200.0	122.2	98.7	90	110			
Fluoride	206	4.00	200.0	0	103	90	110			
Sulfate	1090	30.0	200.0	923.9	81.8	90	110			S

Sample ID: **2408086-01BMSD**	Batch ID: **116647**	TestNo: **E300**	Units: **mg/L**
SampType: **MSD**	Run ID: **IC2_240809A**	Analysis Date: **8/11/2024 5:17:04 AM**	Prep Date: **8/9/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	322	10.0	200.0	122.2	99.7	90	110	0.634	20	
Fluoride	208	4.00	200.0	0	104	90	110	0.752	20	
Sulfate	1100	30.0	200.0	923.9	85.7	90	110	0.706	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240809A

Sample ID: **ICV-240809**	Batch ID: **R134543**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_240809A**	Analysis Date: **8/9/2024 1:30:12 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.6	1.00	25.00	0	103	90	110			
Fluoride	10.9	0.400	10.00	0	109	90	110			
Sulfate	79.0	3.00	75.00	0	105	90	110			

Sample ID: **CCV1-240809**	Batch ID: **R134543**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240809A**	Analysis Date: **8/9/2024 10:27:54 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	4.20	0.400	4.000	0	105	90	110			
Sulfate	30.2	3.00	30.00	0	101	90	110			

Sample ID: **CCV2-240809**	Batch ID: **R134543**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240809A**	Analysis Date: **8/10/2024 2:39:53 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.2	1.00	10.00	0	102	90	110			
Fluoride	4.31	0.400	4.000	0	108	90	110			
Sulfate	30.6	3.00	30.00	0	102	90	110			

Sample ID: **CCV3-240809**	Batch ID: **R134543**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240809A**	Analysis Date: **8/10/2024 5:39:54 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.23	0.400	4.000	0	106	90	110			

Sample ID: **ICV-240810**	Batch ID: **R134543**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC2_240809A**	Analysis Date: **8/10/2024 2:18:24 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.5	1.00	25.00	0	102	90	110			
Fluoride	10.7	0.400	10.00	0	107	90	110			
Sulfate	78.3	3.00	75.00	0	104	90	110			

Sample ID: **CCV1-240810**	Batch ID: **R134543**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC2_240809A**	Analysis Date: **8/10/2024 10:59:04 PM**	Prep Date:

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	4.20	0.400	4.000	0	105	90	110			
Sulfate	30.1	3.00	30.00	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_240809A

Sample ID: **CCV3-240810** Batch ID: **R134543** TestNo: **E300** Units: **mg/L**
SampType: **CCV** Run ID: **IC2_240809A** Analysis Date: **8/11/2024 8:53:04 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			
Fluoride	4.28	0.400	4.000	0	107	90	110			
Sulfate	30.6	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: BBA Engineering
Work Order: 2408086
Project: MLSES-ASH PONDS-CCR

ANALYTICAL QC SUMMARY REPORT

RunID: WC_240812B

The QC data in batch 116687 applies to the following samples: 2408086-01B

Sample ID: **MB-116687**	Batch ID: **116687**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_240812B**	Analysis Date: **8/12/2024 5:30:00 PM**	Prep Date: **8/12/2024**

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-116687**	Batch ID: **116687**	TestNo: **M2540C**	Units: **mg/L**
SampType: **LCS**	Run ID: **WC_240812B**	Analysis Date: **8/12/2024 5:30:00 PM**	Prep Date: **8/12/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	744	10.0	745.6	0	99.8	90	113			

Sample ID: **2408113-02B-DUP**	Batch ID: **116687**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_240812B**	Analysis Date: **8/12/2024 5:30:00 PM**	Prep Date: **8/12/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	3780	50.0	0	3925				3.76	5	

Sample ID: **2408113-08B-DUP**	Batch ID: **116687**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_240812B**	Analysis Date: **8/12/2024 5:30:00 PM**	Prep Date: **8/12/2024**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	2660	50.0	0	2605				2.09	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: BBA Engineering
Work Order: 2408086
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

September 09, 2024

DHL Analytical, Inc.

Sample Delivery Group:	L1767606
Samples Received:	08/14/2024
Project Number:	2408086
Description:	

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

Entire Report Reviewed By:

Donna Eidson
Project Manager

TABLE OF CONTENTS

H-32 L1767606-01 Non-Potable Water

Collected by	Collected date/time	Received date/time
	08/06/24 16:10	08/14/24 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2349602	1	08/27/24 11:02	09/05/24 20:15	DDD	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2346666	1	08/20/24 16:04	09/05/24 20:15	DDD	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2346666	1	08/20/24 16:04	08/22/24 14:41	ZRG	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	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.34		0.259	0.467	0.401	0.212	09/05/2024 20:15	WG2349602
(T) Barium	*106*					*30.0-143*	*09/05/2024 20:15*	WG2349602
(T) Yttrium	*91.2*					*30.0-136*	*09/05/2024 20:15*	WG2349602

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.65		0.396	0.556	09/05/2024 20:15	WG2346666

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	2 sigma CE + / -	TPU + / -	MDA pCi/l	Lc pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.315	J	0.299	0.501	0.385	0.251	08/22/2024 14:41	WG2346666
(T) Barium-133	*99.5*					*30.0-143*	*08/22/2024 14:41*	WG2346666

Method Blank (MB)

(MB) R4116667-1 09/02/24 11:00

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	-0.162	U	0.160	0.295	0.155
(T) Barium	*121*		*121*		
(T) Yttrium	*90.7*		*90.7*		

L1767603-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1767603-09 09/04/24 20:56 • (DUP) R4116667-5 09/02/24 11:00

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.952	0.356	0.609	0.320	0.0292	0.373	0.667	0.347	188	1.79	U	20	3
(T) Barium	*98.0*				*105*	*105*							
(T) Yttrium	*116*				*99.8*	*99.8*							

Laboratory Control Sample (LCS)

(LCS) R4116667-2 09/02/24 11:00

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	4.37	87.4	80.0-120	
(T) Barium			*124*		
(T) Yttrium			*98.5*		

L1766835-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1766835-03 09/02/24 11:00 • (MS) R4116667-3 09/02/24 11:00 • (MSD) R4116667-4 09/02/24 11:00

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	16.7	0.871	16.8	15.5	95.4	87.5	1	70.0-130			8.18		20
(T) Barium		*114*			*135*	*131*							
(T) Yttrium		*98.1*			*85.3*	*106*							

Method Blank (MB)

(MB) R4110674-1 08/22/24 14:41

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	0.00765	U	0.0503	0.0903	0.0596
(T) Barium-133	*93.3*		*93.3*		

L1767606-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1767606-01 08/22/24 14:41 • (DUP) R4110674-5 08/22/24 14:41

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.315	0.299	0.385	0.251	0.302	0.199	0.166	0.130	4.34	0.0373		20	3
(T) Barium-133	*99.5*				*94.3*	*94.3*							

Laboratory Control Sample (LCS)

(LCS) R4110674-2 08/22/24 14:41

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	5.09	102	75.0-125	
(T) Barium-133			*92.3*		

L1767788-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1767788-01 08/22/24 14:41 • (MS) R4110674-3 08/22/24 14:41 • (MSD) R4110674-4 08/22/24 14:41

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-226	20.0	0.426	18.4	17.6	89.8	86.0	1	75.0-125			4.17		20
(T) Barium-133		*101*			*91.9*	*99.9*							

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.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

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

CHAIN-OF-CUSTODY RECORD

B021

Work Order: 2408086

L1767606

Subcontractor:
Pace Analytical
12065 Lebanon Rd
Mt. Juliet, TN 37122
TEL: (615) 773-5923
FAX:
Acct #: DHLRRTX

12-Aug-24

Sample ID	Matrix	DHL#	Date Collected	Bottle Type	Requested Tests					
					Ra-228 E904.0	Ra-226 M7500 Ra B M				
H-32	Aqueous	01C	08/06/24 04:10 PM	1LHDPEHNO3		1				J-01
H-32	Aqueous	01D	08/06/24 04:10 PM	1LHDPEHNO3	1					

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		
RA Screen <0.5 mR/hr:	Y N	amb.	

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

		Date/Time			Date/Time
Relinquished by:	[signature]	8/12/24 1700	Received by:	CROPER	08.14.24 1030
Relinquished by:			Received by:		

APPENDIX B

ASSESSMENT MONITORING PROGRAM
STATISTICAL DATA SUMMARY

Confidence Interval Graphs

EXPLANATION

95% Upper confidence limit

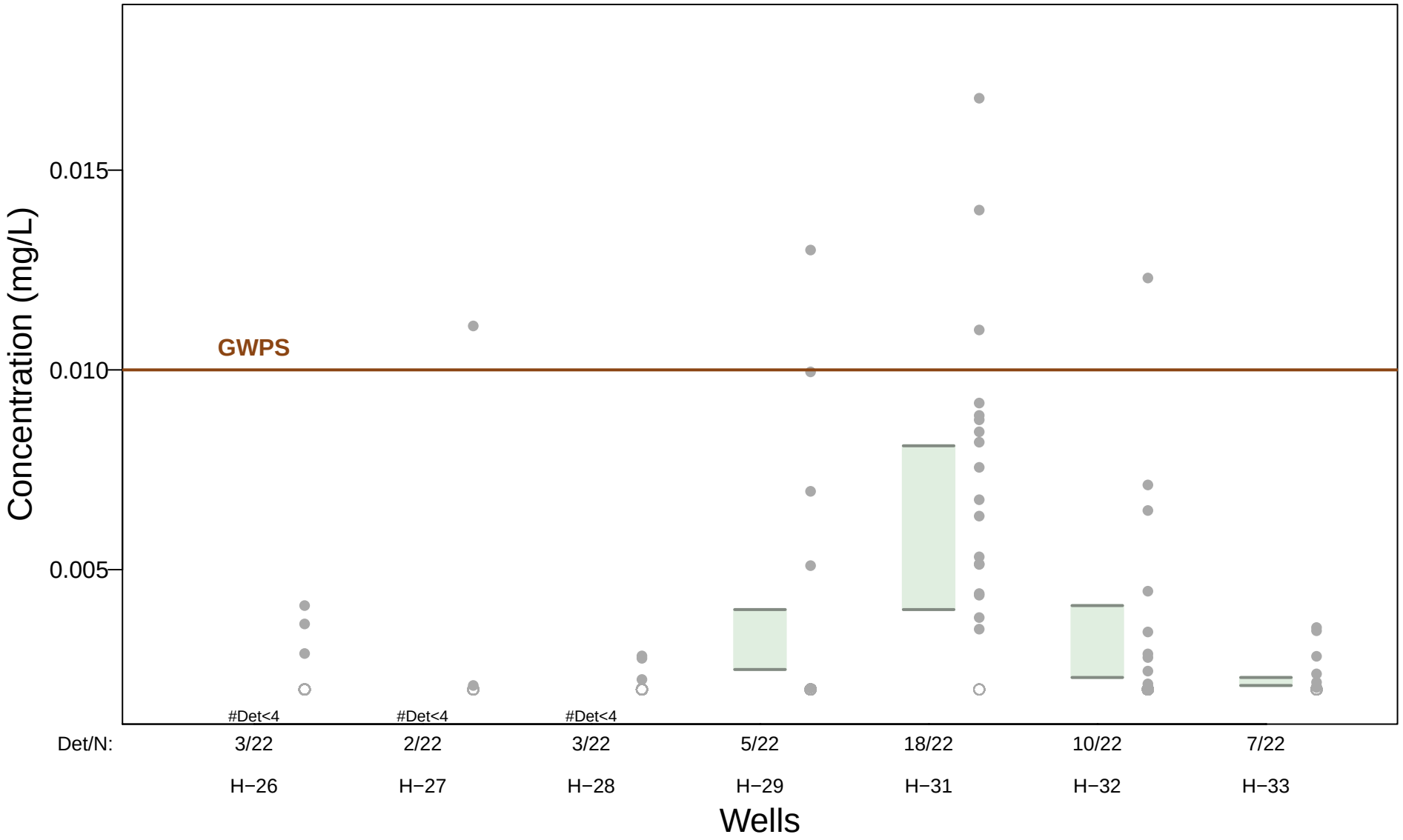
95% Lower confidence limit

Detected sample concentration

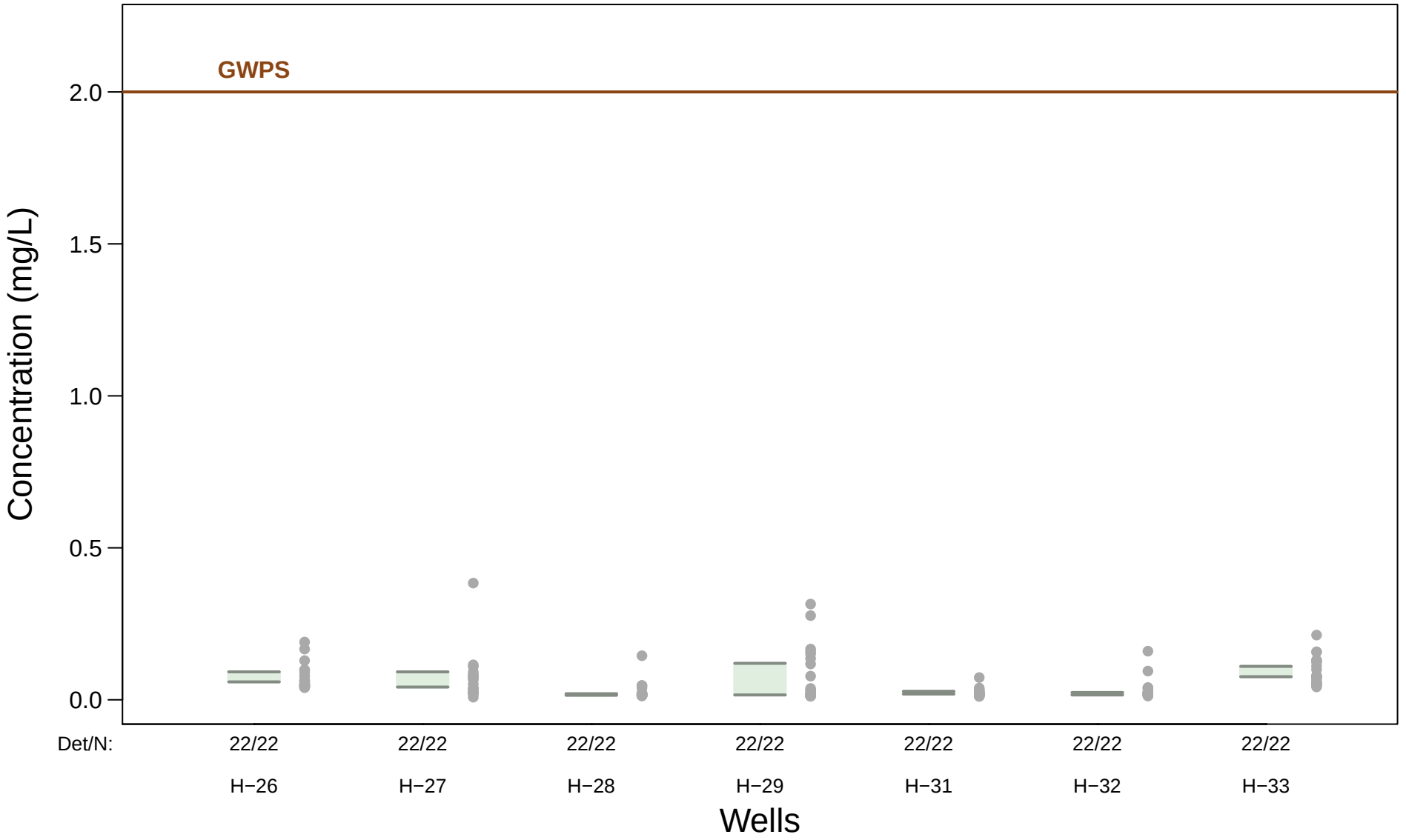
Non-detect sample result (concentration set to laboratory reporting limit)

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

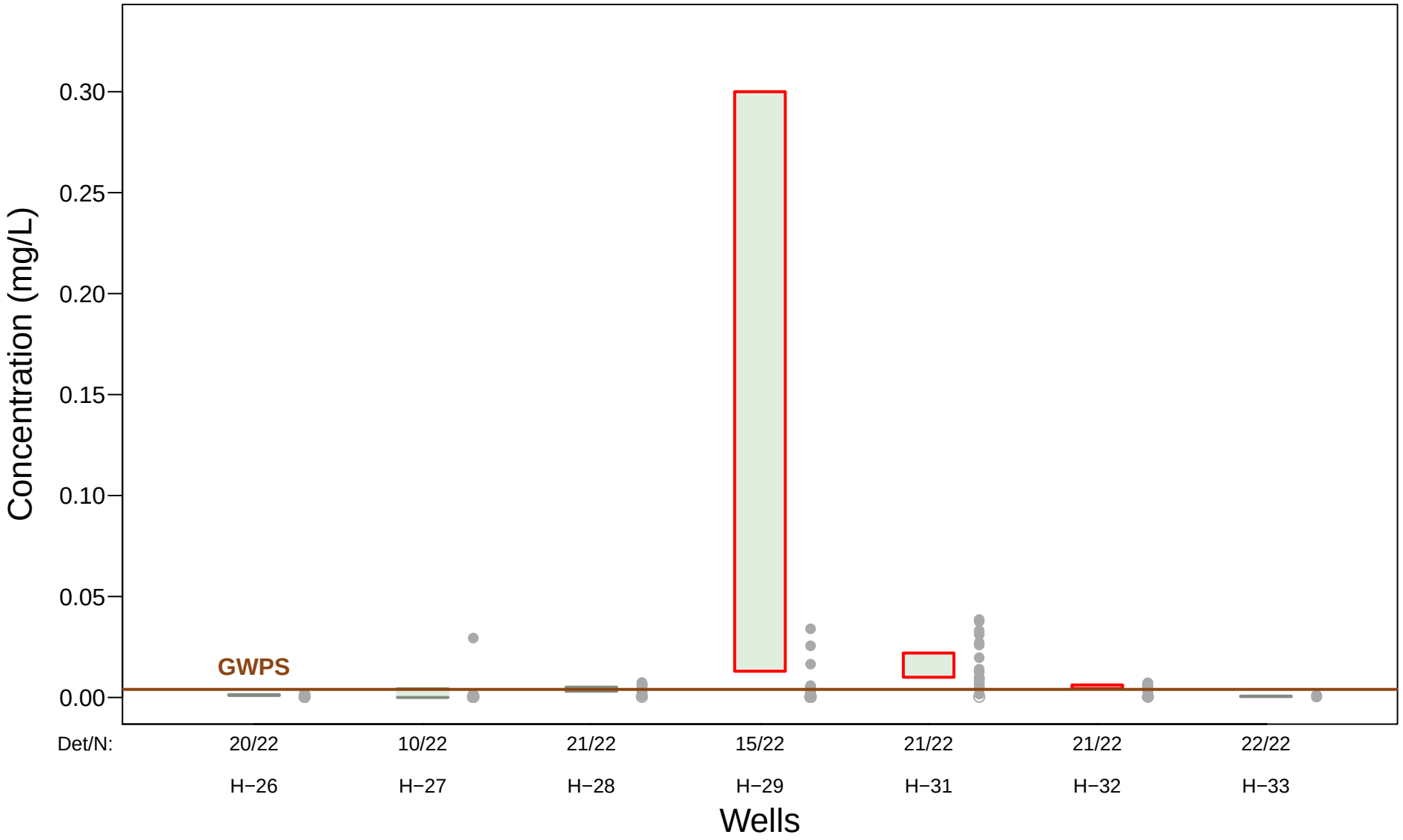
Arsenic − 95% Confidence Intervals



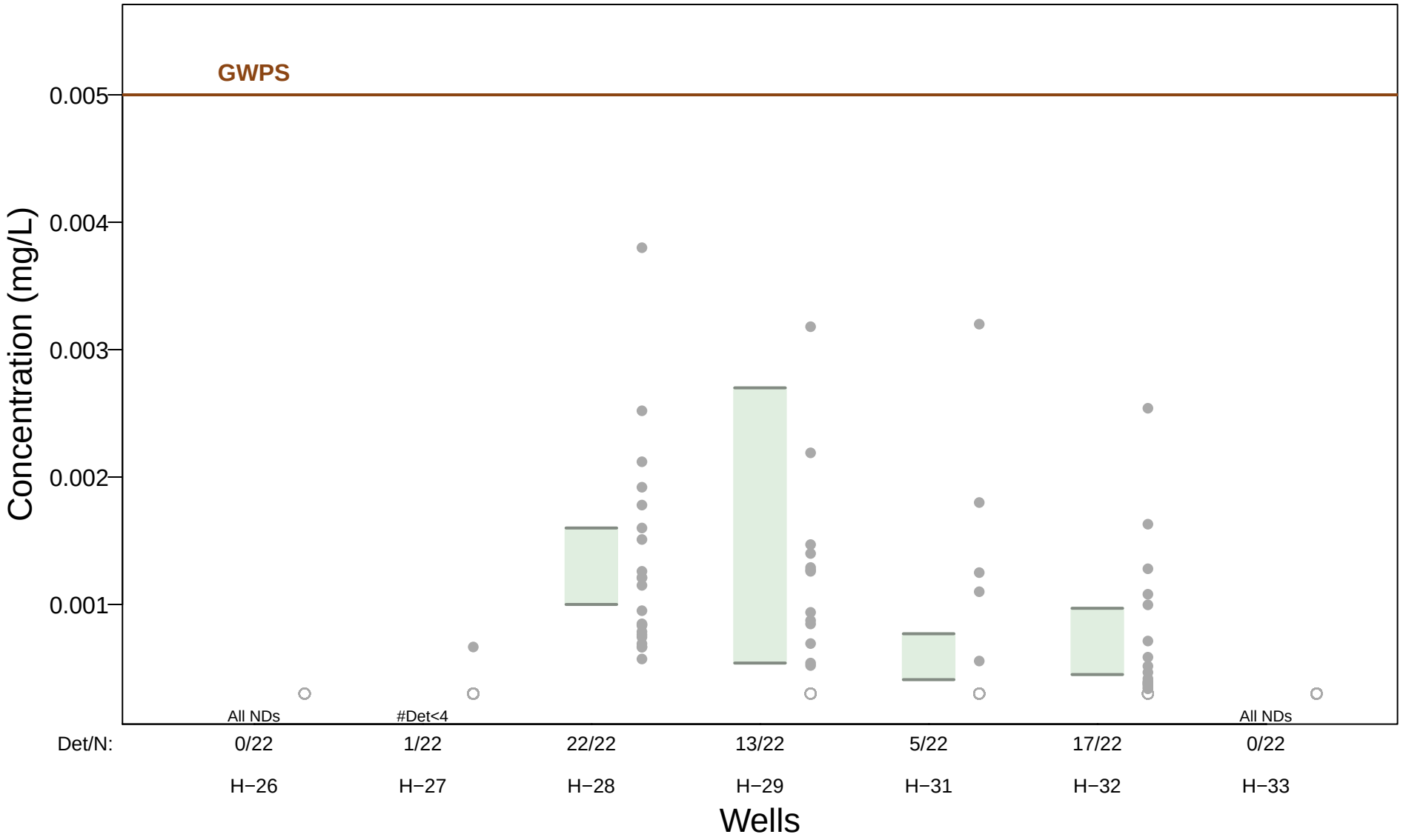
Barium – 95% Confidence Intervals



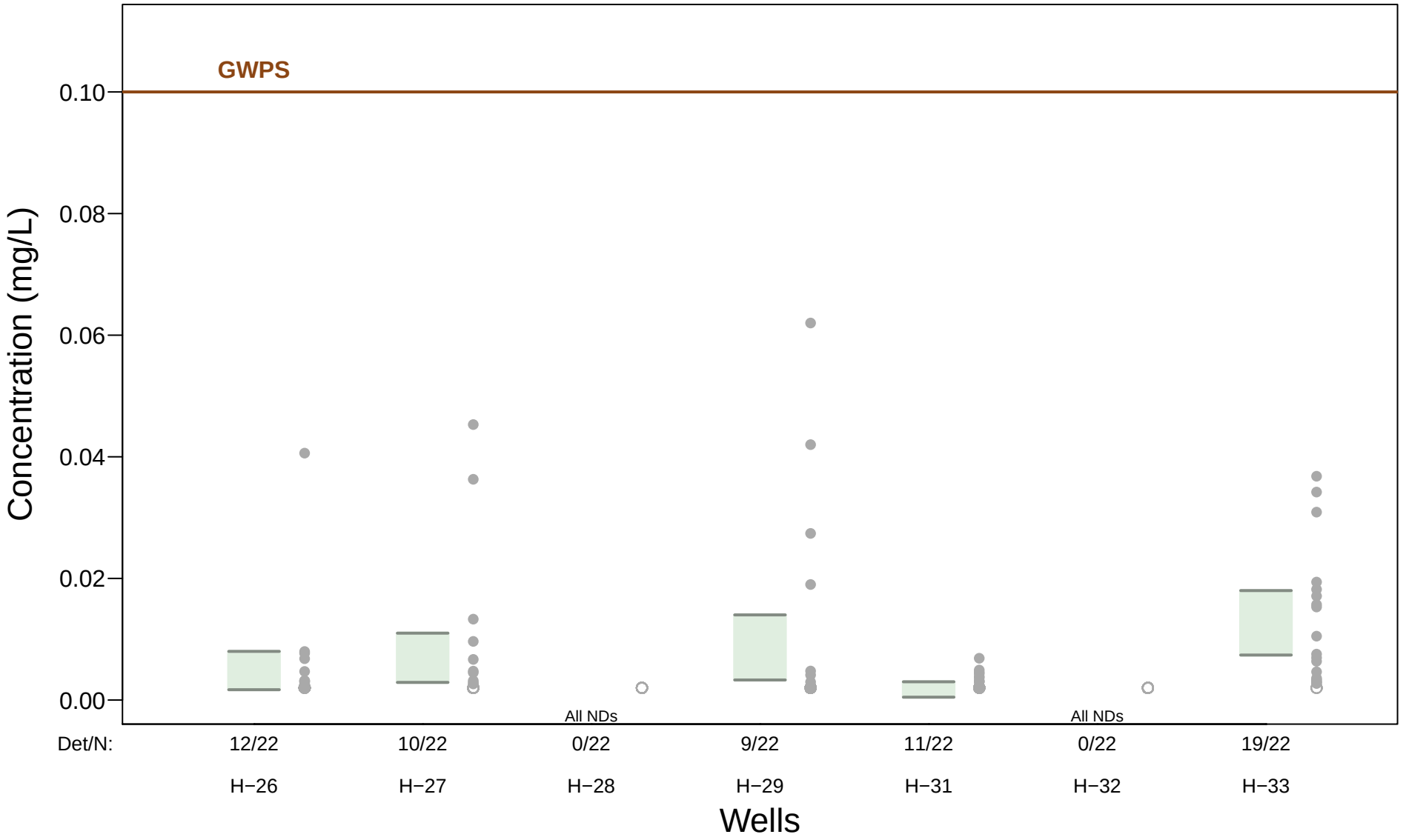
Beryllium – 95% Confidence Intervals



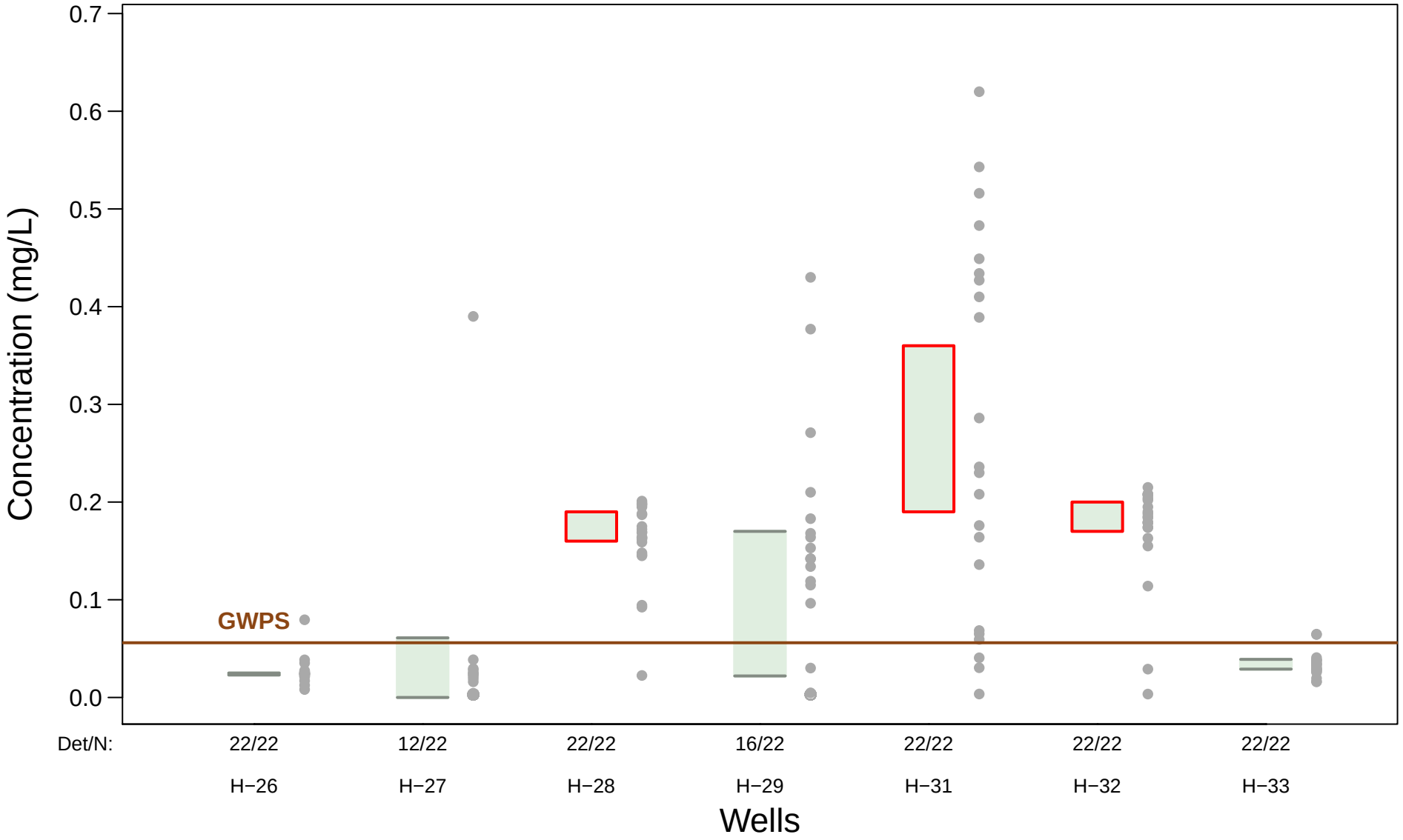
Cadmium – 95% Confidence Intervals



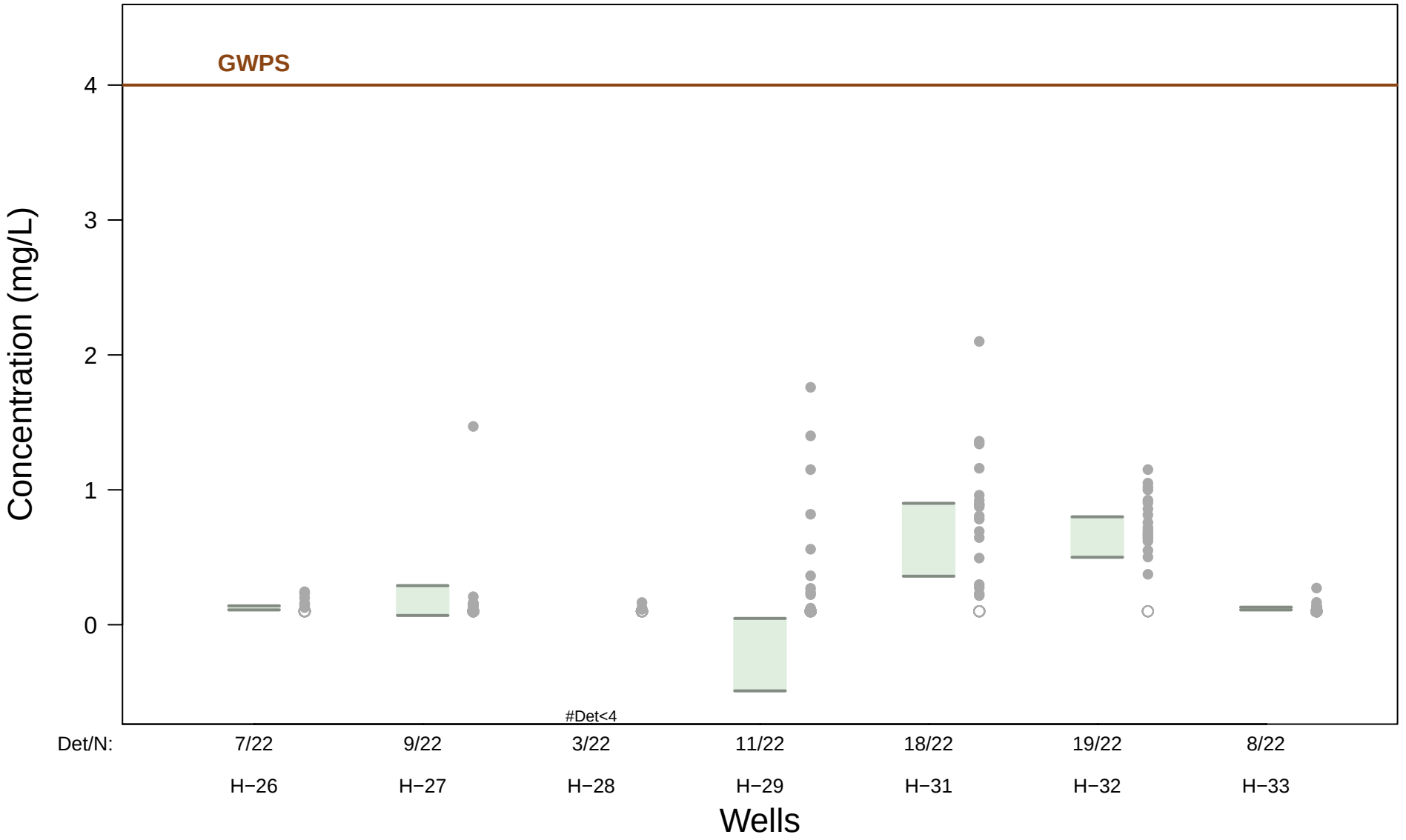
Chromium – 95% Confidence Intervals



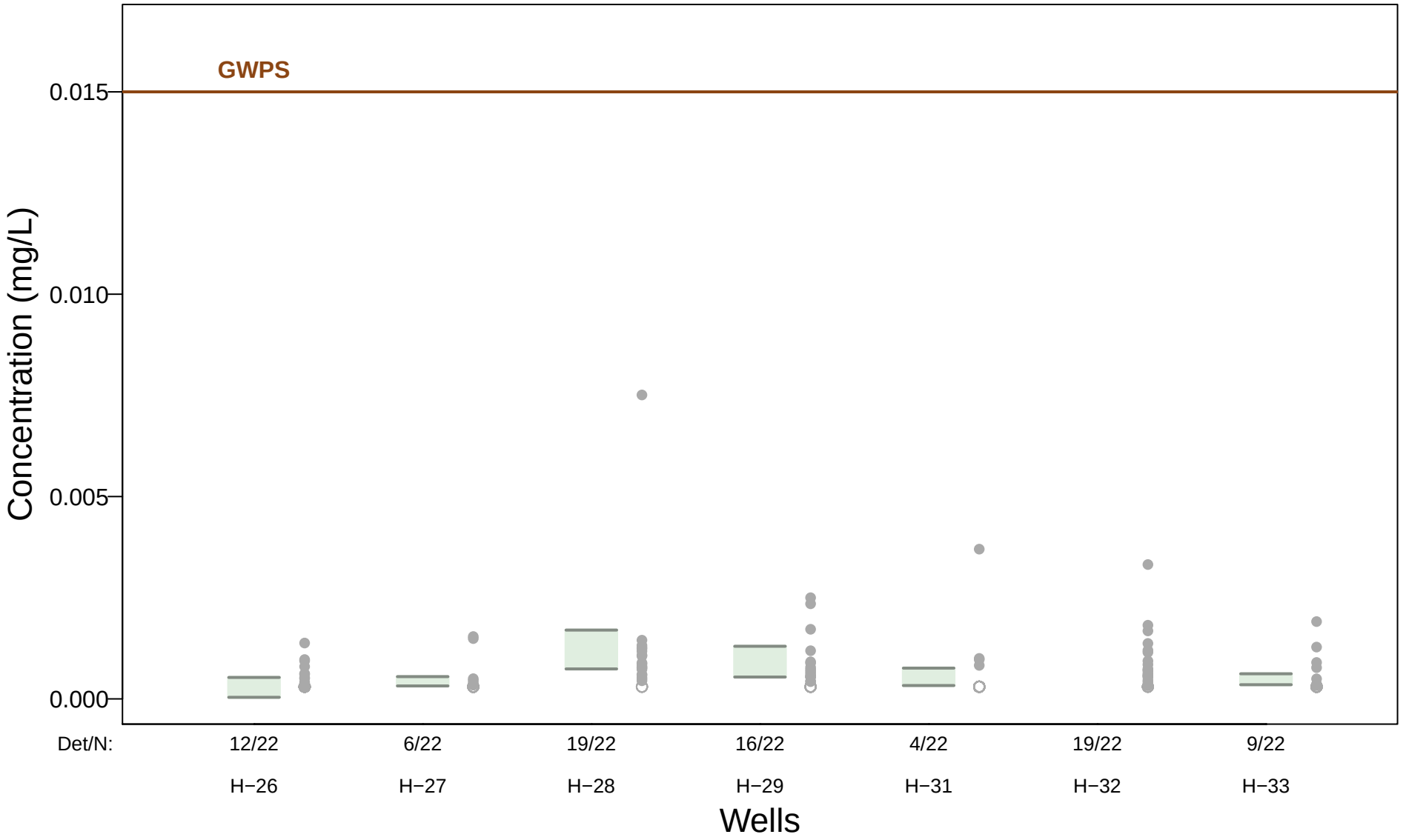
Cobalt – 95% Confidence Intervals



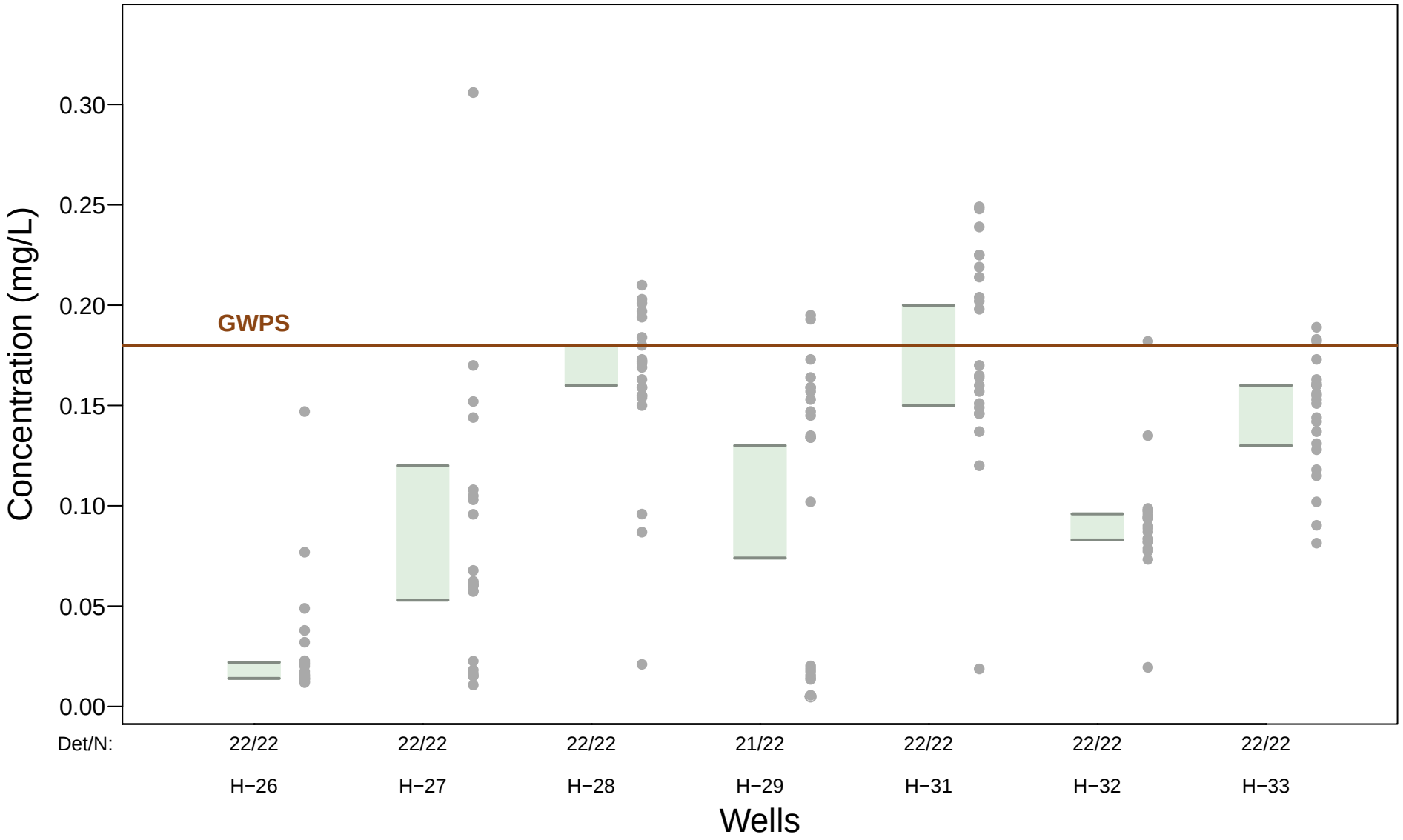
Fluoride (Appendix IV) – 95% Confidence Intervals



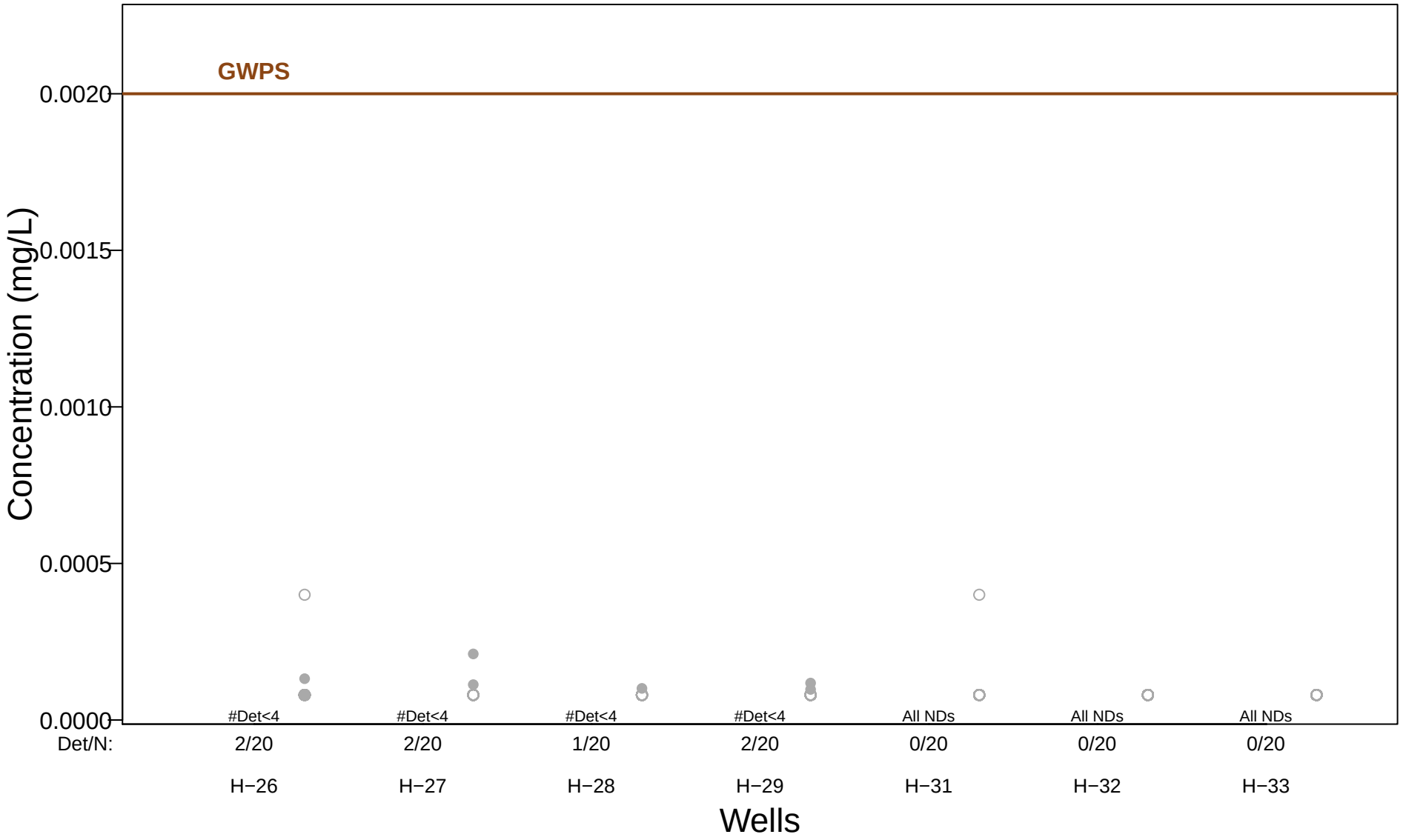
Lead – 95% Confidence Intervals



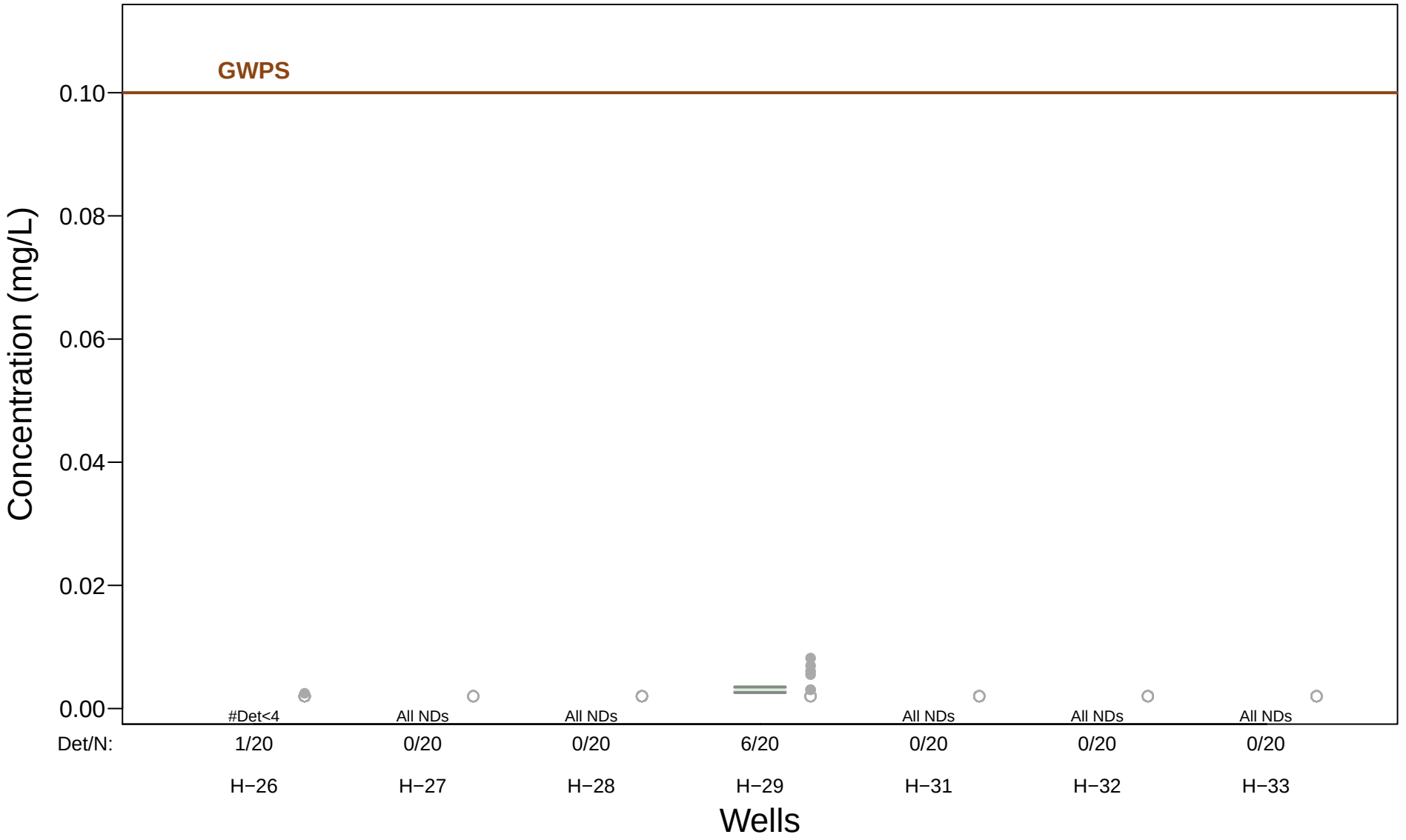
Lithium – 95% Confidence Intervals



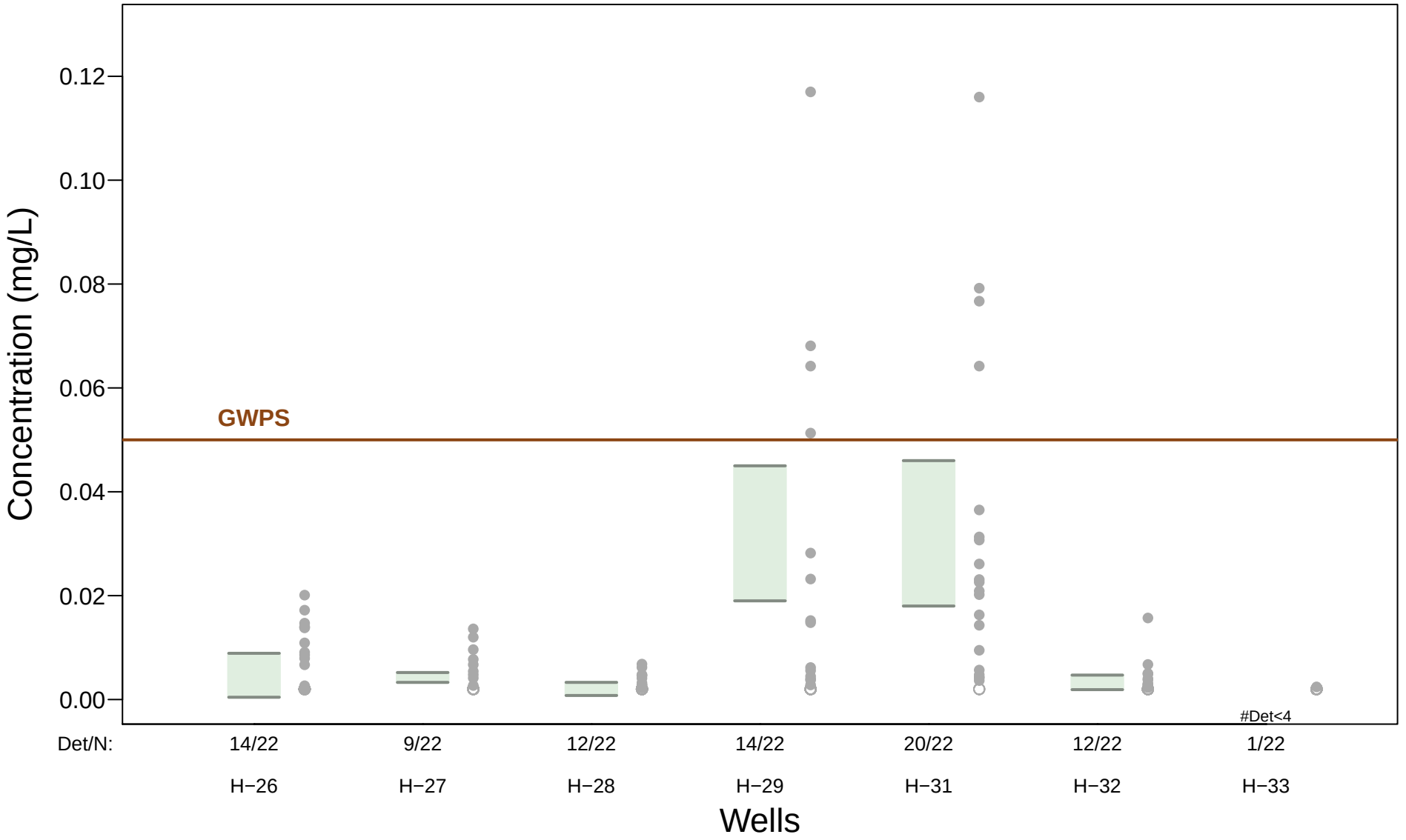
Mercury – 95% Confidence Intervals



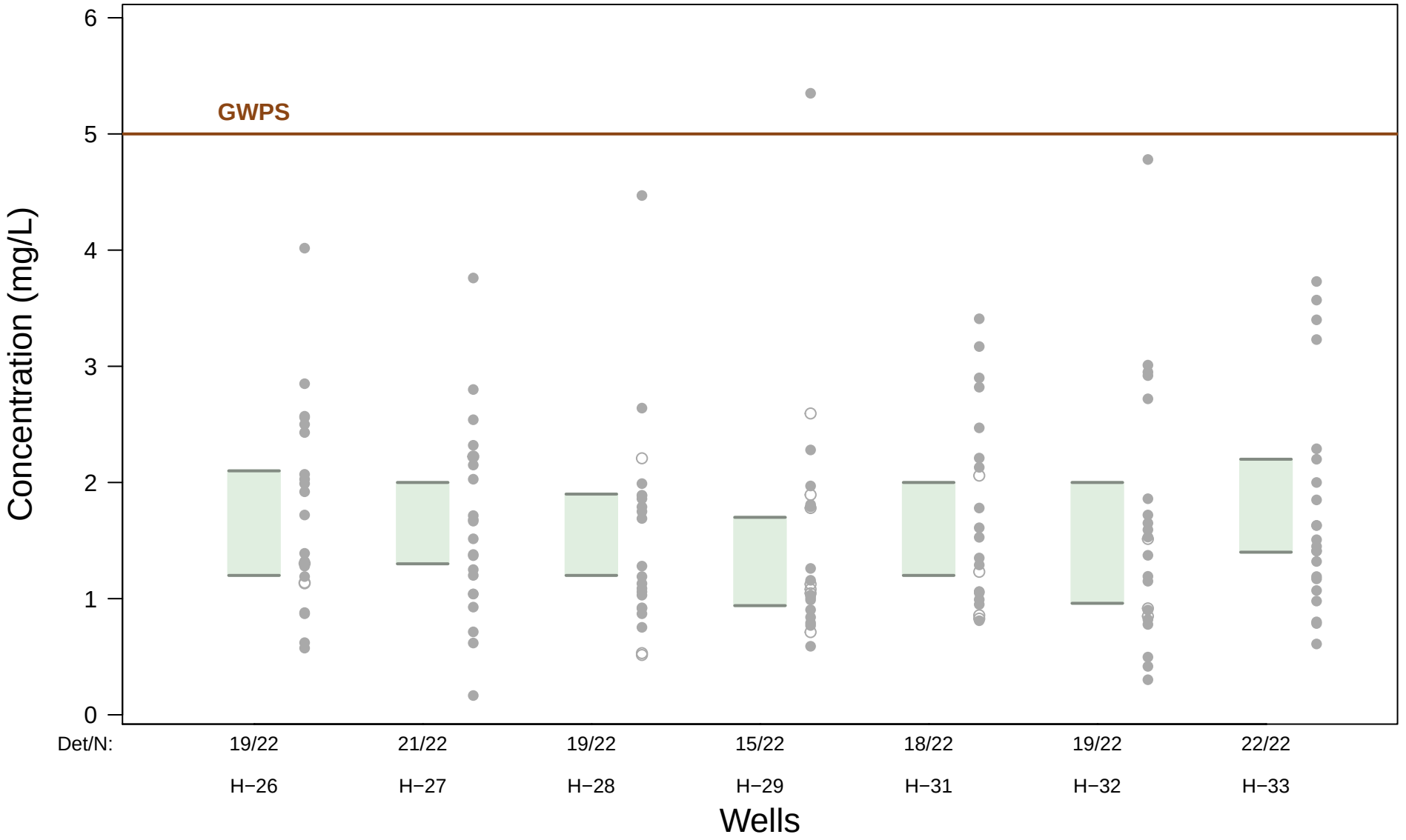
Molybdenum – 95% Confidence Intervals



Selenium − 95% Confidence Intervals



Radium−226/228 combined − 95% Confidence Intervals



Statistical Data Summary Table

STATISTICAL DATA SUMMARY TABLE

Site	Area	Analyte	Well	# Detects	# Samples	% Detects	Gradient	GWPS	Minimum Detect	Maximum Detect	Distribution	LCL	UCL	LCL > GWPS?
MLSES	Ash Pond Area	Antimony	H-26	0	20	0	Upgradient Wells	0.006	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Antimony	H-27	0	20	0	Upgradient Wells	0.006	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Antimony	H-28	0	20	0	Downgradient Wells	0.006	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Antimony	H-29	0	20	0	Downgradient Wells	0.006	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Antimony	H-31	0	20	0	Downgradient Wells	0.006	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Antimony	H-32	0	20	0	Downgradient Wells	0.006	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Antimony	H-33	0	20	0	Upgradient Wells	0.006	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Arsenic	H-26	3	22	14	Upgradient Wells	0.01	0.0029	0.0041	Nonparametric, det<4			
MLSES	Ash Pond Area	Arsenic	H-27	2	22	9	Upgradient Wells	0.01	0.0021	0.0111	Nonparametric, det<4			
MLSES	Ash Pond Area	Arsenic	H-28	3	22	14	Downgradient Wells	0.01	0.00225	0.00284	Nonparametric, det<4			
MLSES	Ash Pond Area	Arsenic	H-29	5	22	23	Downgradient Wells	0.01	0.00203	0.013	onparametric, <50% Detec	0.0025	0.004	FALSE
MLSES	Ash Pond Area	Arsenic	H-31	18	22	82	Downgradient Wells	0.01	0.00351	0.0168	Normal	0.004	0.0081	FALSE
MLSES	Ash Pond Area	Arsenic	H-32	10	22	45	Downgradient Wells	0.01	0.002	0.0123	onparametric, <50% Detec	0.0023	0.0041	FALSE
MLSES	Ash Pond Area	Arsenic	H-33	7	22	32	Upgradient Wells	0.01	0.00205	0.00355	onparametric, <50% Detec	0.0021	0.0023	FALSE
MLSES	Ash Pond Area	Barium	H-26	22	22	100	Upgradient Wells	2	0.0401	0.19	Lognormal	0.059	0.092	FALSE
MLSES	Ash Pond Area	Barium	H-27	22	22	100	Upgradient Wells	2	0.00857	0.384	Gamma	0.042	0.092	FALSE
MLSES	Ash Pond Area	Barium	H-28	22	22	100	Downgradient Wells	2	0.0132	0.145	Nonparametric	0.015	0.02	FALSE
MLSES	Ash Pond Area	Barium	H-29	22	22	100	Downgradient Wells	2	0.0117	0.315	Nonparametric	0.016	0.12	FALSE
MLSES	Ash Pond Area	Barium	H-31	22	22	100	Downgradient Wells	2	0.0112	0.0732	Gamma	0.019	0.028	FALSE
MLSES	Ash Pond Area	Barium	H-32	22	22	100	Downgradient Wells	2	0.0124	0.16	Nonparametric	0.016	0.024	FALSE
MLSES	Ash Pond Area	Barium	H-33	22	22	100	Upgradient Wells	2	0.0424	0.213	Gamma	0.076	0.11	FALSE
MLSES	Ash Pond Area	Beryllium	H-26	20	22	91	Upgradient Wells	0.004	0.000349	0.00169	Nonparametric	0.001	0.0014	FALSE
MLSES	Ash Pond Area	Beryllium	H-27	10	22	45	Upgradient Wells	0.004	0.00044	0.0294	onparametric, <50% Detec	0	0.0043	FALSE
MLSES	Ash Pond Area	Beryllium	H-28	21	22	95	Downgradient Wells	0.004	0.000698	0.0074	Nonparametric	0.0031	0.0051	FALSE
MLSES	Ash Pond Area	Beryllium	H-29	15	22	68	Downgradient Wells	0.004	0.000359	0.034	Lognormal	0.013	0.3	TRUE
MLSES	Ash Pond Area	Beryllium	H-31	21	22	95	Downgradient Wells	0.004	0.00167	0.0386	Gamma	0.01	0.022	TRUE
MLSES	Ash Pond Area	Beryllium	H-32	21	22	95	Downgradient Wells	0.004	0.000516	0.00725	Normal	0.0044	0.0062	TRUE
MLSES	Ash Pond Area	Beryllium	H-33	22	22	100	Upgradient Wells	0.004	0.0003	0.00114	Normal	0.00047	0.00066	FALSE
MLSES	Ash Pond Area	Cadmium	H-26	0	22	0	Upgradient Wells	0.005	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Cadmium	H-27	1	22	5	Upgradient Wells	0.005	0.000666	0.000666	Nonparametric, det<4			
MLSES	Ash Pond Area	Cadmium	H-28	22	22	100	Downgradient Wells	0.005	0.000572	0.0038	Gamma	0.001	0.0016	FALSE
MLSES	Ash Pond Area	Cadmium	H-29	13	22	59	Downgradient Wells	0.005	0.000521	0.00318	te with ProUCL-type - use	0.00054	0.0027	FALSE
MLSES	Ash Pond Area	Cadmium	H-31	5	22	23	Downgradient Wells	0.005	0.000556	0.0032	onparametric, <50% Detec	0.00041	0.00077	FALSE
MLSES	Ash Pond Area	Cadmium	H-32	17	22	77	Downgradient Wells	0.005	0.000338	0.00254	Lognormal	0.00045	0.00097	FALSE
MLSES	Ash Pond Area	Cadmium	H-33	0	22	0	Upgradient Wells	0.005	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Chromium	H-26	12	22	55	Upgradient Wells	0.1	0.00213	0.0406	Nonparametric	0.0017	0.008	FALSE
MLSES	Ash Pond Area	Chromium	H-27	10	22	45	Upgradient Wells	0.1	0.00265	0.0453	onparametric, <50% Detec	0.0029	0.011	FALSE
MLSES	Ash Pond Area	Chromium	H-28	0	22	0	Downgradient Wells	0.1	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Chromium	H-29	9	22	41	Downgradient Wells	0.1	0.00201	0.062	onparametric, <50% Detec	0.0033	0.014	FALSE
MLSES	Ash Pond Area	Chromium	H-31	11	22	50	Downgradient Wells	0.1	0.0021	0.00687	Normal	0.00047	0.003	FALSE
MLSES	Ash Pond Area	Chromium	H-32	0	22	0	Downgradient Wells	0.1	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Chromium	H-33	19	22	86	Upgradient Wells	0.1	0.00272	0.0368	Gamma	0.0074	0.018	FALSE
MLSES	Ash Pond Area	Cobalt	H-26	22	22	100	Upgradient Wells	0.056	0.00813	0.0795	Nonparametric	0.023	0.025	FALSE

STATISTICAL DATA SUMMARY TABLE

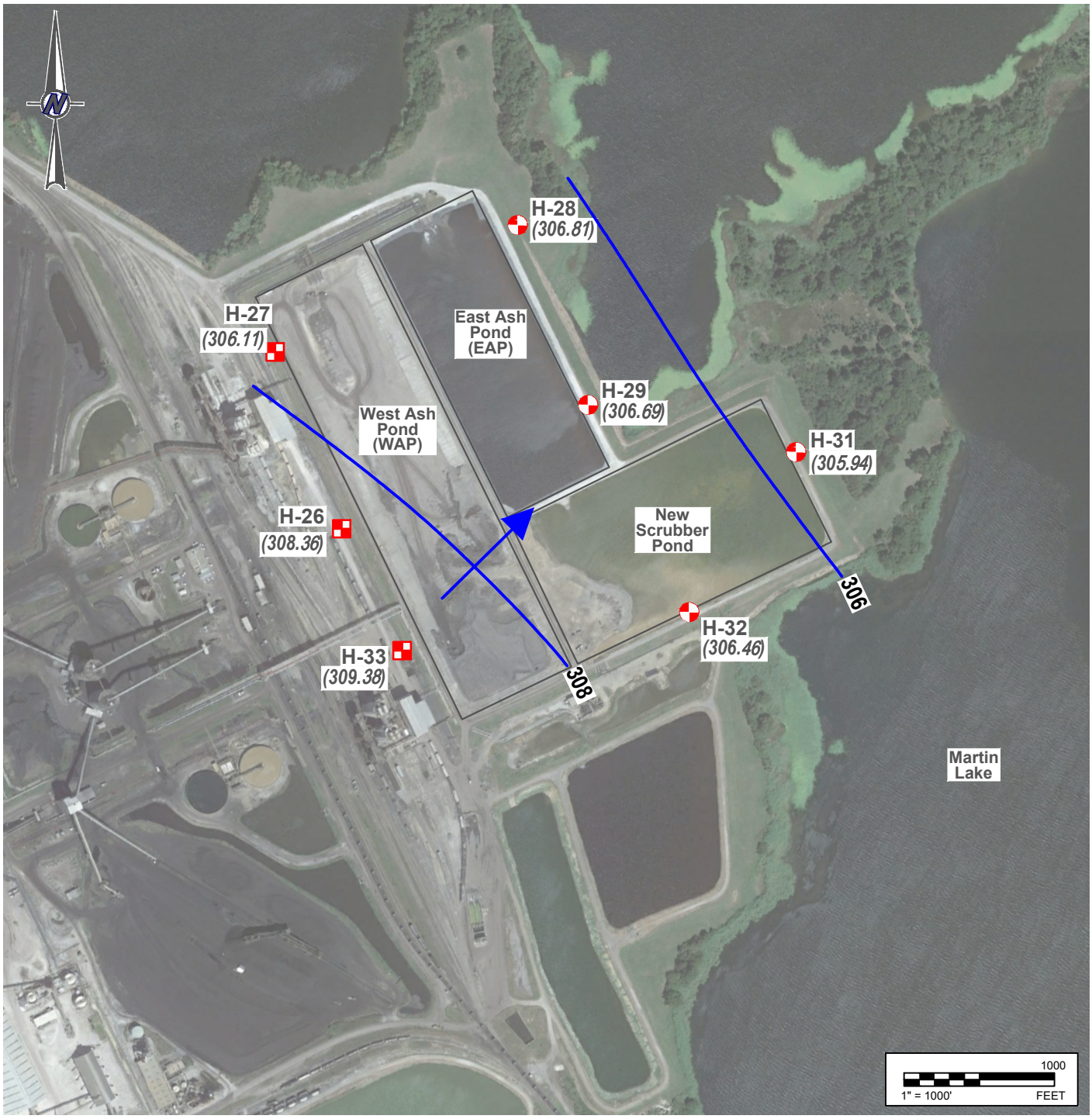
Site	Area	Analyte	Well	# Detects	# Samples	% Detects	Gradient	GWPS	Minimum Detect	Maximum Detect	Distribution	LCL	UCL	LCL > GWPS?
MLSES	Ash Pond Area	Cobalt	H-27	12	22	55	Upgradient Wells	0.056	0.00326	0.39	Nonparametric	0	0.061	FALSE
MLSES	Ash Pond Area	Cobalt	H-28	22	22	100	Downgradient Wells	0.056	0.0225	0.201	Nonparametric	0.16	0.19	TRUE
MLSES	Ash Pond Area	Cobalt	H-29	16	22	73	Downgradient Wells	0.056	0.00473	0.43	Normal	0.022	0.17	FALSE
MLSES	Ash Pond Area	Cobalt	H-31	22	22	100	Downgradient Wells	0.056	0.00353	0.62	Normal	0.19	0.36	TRUE
MLSES	Ash Pond Area	Cobalt	H-32	22	22	100	Downgradient Wells	0.056	0.00347	0.215	Nonparametric	0.17	0.2	TRUE
MLSES	Ash Pond Area	Cobalt	H-33	22	22	100	Upgradient Wells	0.056	0.016	0.0648	Gamma	0.029	0.039	FALSE
MLSES	Ash Pond Area	Fluoride (Appendix IV)	H-26	7	22	32	Upgradient Wells	4	0.127	0.245	onparametric, <50% Detec	0.11	0.14	FALSE
MLSES	Ash Pond Area	Fluoride (Appendix IV)	H-27	9	22	41	Upgradient Wells	4	0.101	1.47	onparametric, <50% Detec	0.069	0.29	FALSE
MLSES	Ash Pond Area	Fluoride (Appendix IV)	H-28	3	22	14	Downgradient Wells	4	0.114	0.165	Nonparametric, det<4			
MLSES	Ash Pond Area	Fluoride (Appendix IV)	H-29	11	22	50	Downgradient Wells	4	0.104	1.76	Normal	-0.49	0.047	FALSE
MLSES	Ash Pond Area	Fluoride (Appendix IV)	H-31	18	22	82	Downgradient Wells	4	0.216	2.1	Normal	0.36	0.9	FALSE
MLSES	Ash Pond Area	Fluoride (Appendix IV)	H-32	19	22	86	Downgradient Wells	4	0.374	1.15	Normal	0.5	0.8	FALSE
MLSES	Ash Pond Area	Fluoride (Appendix IV)	H-33	8	22	36	Upgradient Wells	4	0.105	0.272	onparametric, <50% Detec	0.11	0.13	FALSE
MLSES	Ash Pond Area	Lead	H-26	12	22	55	Upgradient Wells	0.015	0.000313	0.00138	Normal	0.000039	0.00053	FALSE
MLSES	Ash Pond Area	Lead	H-27	6	22	27	Upgradient Wells	0.015	0.000339	0.00154	onparametric, <50% Detec	0.00032	0.00055	FALSE
MLSES	Ash Pond Area	Lead	H-28	19	22	86	Downgradient Wells	0.015	0.000448	0.00751	Lognormal	0.00074	0.0017	FALSE
MLSES	Ash Pond Area	Lead	H-29	16	22	73	Downgradient Wells	0.015	0.000427	0.0025	te with ProUCL-type - use	0.00054	0.0013	FALSE
MLSES	Ash Pond Area	Lead	H-31	4	22	18	Downgradient Wells	0.015	0.000828	0.0037	onparametric, <50% Detec	0.00033	0.00076	FALSE
MLSES	Ash Pond Area	Lead	H-32	19	22	86	Downgradient Wells	0.015	0.000326	0.00332	Gamma			
MLSES	Ash Pond Area	Lead	H-33	9	22	41	Upgradient Wells	0.015	0.000329	0.00191	onparametric, <50% Detec	0.00035	0.00062	FALSE
MLSES	Ash Pond Area	Lithium	H-26	22	22	100	Upgradient Wells	0.18	0.0119	0.147	Nonparametric	0.014	0.022	FALSE
MLSES	Ash Pond Area	Lithium	H-27	22	22	100	Upgradient Wells	0.18	0.0107	0.306	Gamma	0.053	0.12	FALSE
MLSES	Ash Pond Area	Lithium	H-28	22	22	100	Downgradient Wells	0.18	0.021	0.21	Nonparametric	0.16	0.18	FALSE
MLSES	Ash Pond Area	Lithium	H-29	21	22	95	Downgradient Wells	0.18	0.0056	0.195	Nonparametric	0.074	0.13	FALSE
MLSES	Ash Pond Area	Lithium	H-31	22	22	100	Downgradient Wells	0.18	0.0187	0.249	Normal	0.15	0.2	FALSE
MLSES	Ash Pond Area	Lithium	H-32	22	22	100	Downgradient Wells	0.18	0.0195	0.182	Nonparametric	0.083	0.096	FALSE
MLSES	Ash Pond Area	Lithium	H-33	22	22	100	Upgradient Wells	0.18	0.0814	0.189	Normal	0.13	0.16	FALSE
MLSES	Ash Pond Area	Mercury	H-26	2	20	10	Upgradient Wells	0.002	0.0000824	0.000132	Nonparametric, det<4			
MLSES	Ash Pond Area	Mercury	H-27	2	20	10	Upgradient Wells	0.002	0.000113	0.000211	Nonparametric, det<4			
MLSES	Ash Pond Area	Mercury	H-28	1	20	5	Downgradient Wells	0.002	0.000101	0.000101	Nonparametric, det<4			
MLSES	Ash Pond Area	Mercury	H-29	2	20	10	Downgradient Wells	0.002	0.0000976	0.000118	Nonparametric, det<4			
MLSES	Ash Pond Area	Mercury	H-31	0	20	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Mercury	H-32	0	20	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Mercury	H-33	0	20	0	Upgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Molybdenum	H-26	1	20	5	Upgradient Wells	0.1	0.00248	0.00248	Nonparametric, det<4			
MLSES	Ash Pond Area	Molybdenum	H-27	0	20	0	Upgradient Wells	0.1	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Molybdenum	H-28	0	20	0	Downgradient Wells	0.1	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Molybdenum	H-29	6	20	30	Downgradient Wells	0.1	0.00305	0.00819	onparametric, <50% Detec	0.0026	0.0035	FALSE
MLSES	Ash Pond Area	Molybdenum	H-31	0	20	0	Downgradient Wells	0.1	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Molybdenum	H-32	0	20	0	Downgradient Wells	0.1	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Molybdenum	H-33	0	20	0	Upgradient Wells	0.1	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Selenium	H-26	14	22	64	Upgradient Wells	0.05	0.0022	0.0201	Normal	0.00044	0.0089	FALSE
MLSES	Ash Pond Area	Selenium	H-27	9	22	41	Upgradient Wells	0.05	0.0027	0.0136	onparametric, <50% Detec	0.0033	0.0052	FALSE

STATISTICAL DATA SUMMARY TABLE

Site	Area	Analyte	Well	# Detects	# Samples	% Detects	Gradient	GWPS	Minimum Detect	Maximum Detect	Distribution	LCL	UCL	LCL > GWPS?
MLSES	Ash Pond Area	Selenium	H-28	12	22	55	Downgradient Wells	0.05	0.00222	0.00682	Normal	0.00078	0.0033	FALSE
MLSES	Ash Pond Area	Selenium	H-29	14	22	64	Downgradient Wells	0.05	0.00281	0.117	Gamma	0.019	0.045	FALSE
MLSES	Ash Pond Area	Selenium	H-31	20	22	91	Downgradient Wells	0.05	0.00365	0.116	Gamma	0.018	0.046	FALSE
MLSES	Ash Pond Area	Selenium	H-32	12	22	55	Downgradient Wells	0.05	0.0023	0.0157	Gamma	0.0019	0.0047	FALSE
MLSES	Ash Pond Area	Selenium	H-33	1	22	5	Upgradient Wells	0.05	0.00243	0.00243	Nonparametric, det<4			
MLSES	Ash Pond Area	Thallium	H-26	0	20	0	Upgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Thallium	H-27	0	20	0	Upgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Thallium	H-28	0	20	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Thallium	H-29	0	20	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Thallium	H-31	0	20	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Thallium	H-32	0	20	0	Downgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Thallium	H-33	0	20	0	Upgradient Wells	0.002	ND	ND	All NDs	--	--	--
MLSES	Ash Pond Area	Radium-226/228 combine	H-26	19	22	86	Upgradient Wells	5	0.574	4.017	Normal	1.2	2.1	FALSE
MLSES	Ash Pond Area	Radium-226/228 combine	H-27	21	22	95	Upgradient Wells	5	0.166	3.76	Normal	1.3	2	FALSE
MLSES	Ash Pond Area	Radium-226/228 combine	H-28	19	22	86	Downgradient Wells	5	0.753	4.47	Gamma	1.2	1.9	FALSE
MLSES	Ash Pond Area	Radium-226/228 combine	H-29	15	22	68	Downgradient Wells	5	0.59	5.35	Gamma	0.94	1.7	FALSE
MLSES	Ash Pond Area	Radium-226/228 combine	H-31	18	22	82	Downgradient Wells	5	0.81	3.409	Normal	1.2	2	FALSE
MLSES	Ash Pond Area	Radium-226/228 combine	H-32	19	22	86	Downgradient Wells	5	0.302	4.78	Normal	0.96	2	FALSE
MLSES	Ash Pond Area	Radium-226/228 combine	H-33	22	22	100	Upgradient Wells	5	0.61	3.73	Gamma	1.4	2.2	FALSE

APPENDIX C

2024 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. = 2 FT)
- INFERRED GROUNDWATER FLOW DIRECTION

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
No. 10492
LICENSED
PROFESSIONAL GEOSCIENTIST

01/31/2025

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 2021

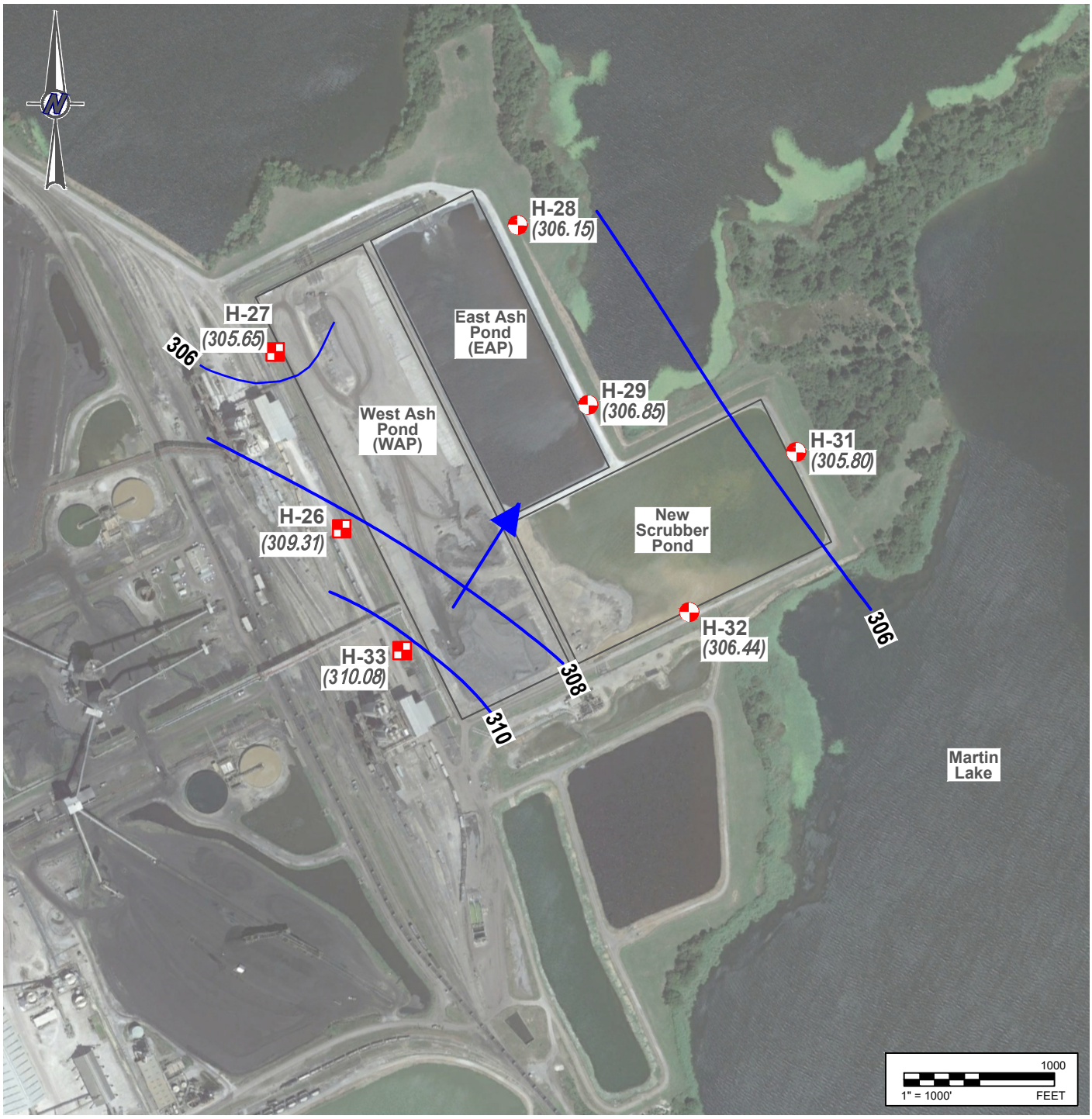
LUMINANT

MARTIN LAKE STEAM ELECTRIC STATION
TATUM, TEXAS

ASH POND AREA
POTENTIOMETRIC SURFACE MAP
APRIL 24, 2024

PROJECT: 23643.03	BY: SLB	DATE: 12/14/2024	CHECKED: WV

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127



LEGEND

- DOWNGRADIENT CCR MONITORING WELL
- UPGRADIENT CCR MONITORING WELL
- (308.70) GROUNDWATER POTENTIOMETRIC SURFACE (FT MSL)
- 308 GROUNDWATER POTENTIOMETRIC SURFACE CONTOUR (C.I. = 2 FT)
- INFERRED GROUNDWATER FLOW DIRECTION

STATE OF TEXAS
WILLIAM F VIENNE
GEOLOGY
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LICENSED
PROFESSIONAL GEOSCIENTIST

01/31/2025

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED JANUARY 2021

LUMINANT

MARTIN LAKE STEAM ELECTRIC STATION
TATUM, TEXAS

ASH POND AREA
POTENTIOMETRIC SURFACE MAP
JULY 29, 2024

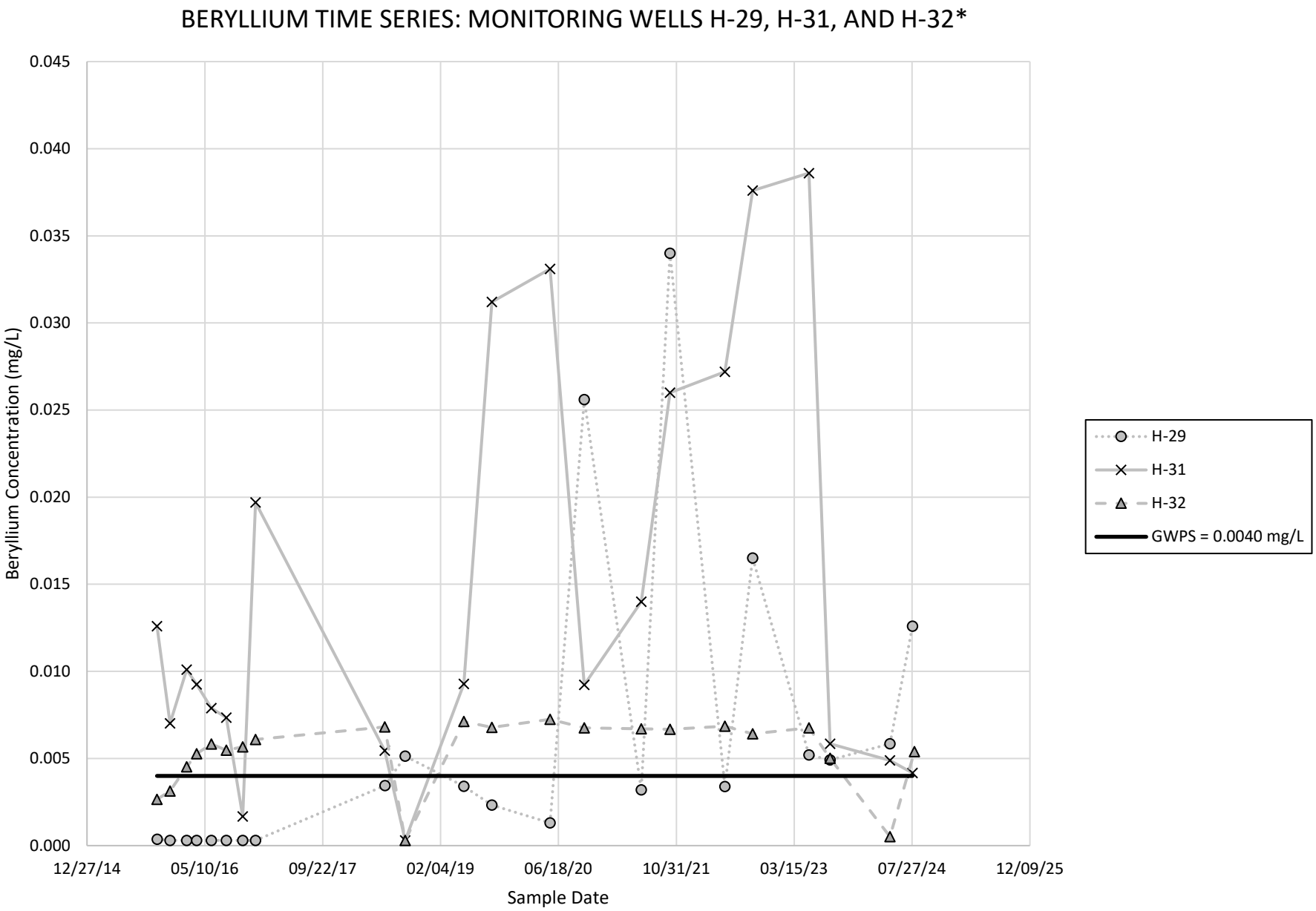
PROJECT: 23643.03	BY: SLB	DATE: 12/14/2024	CHECKED: WV

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

APPENDIX D

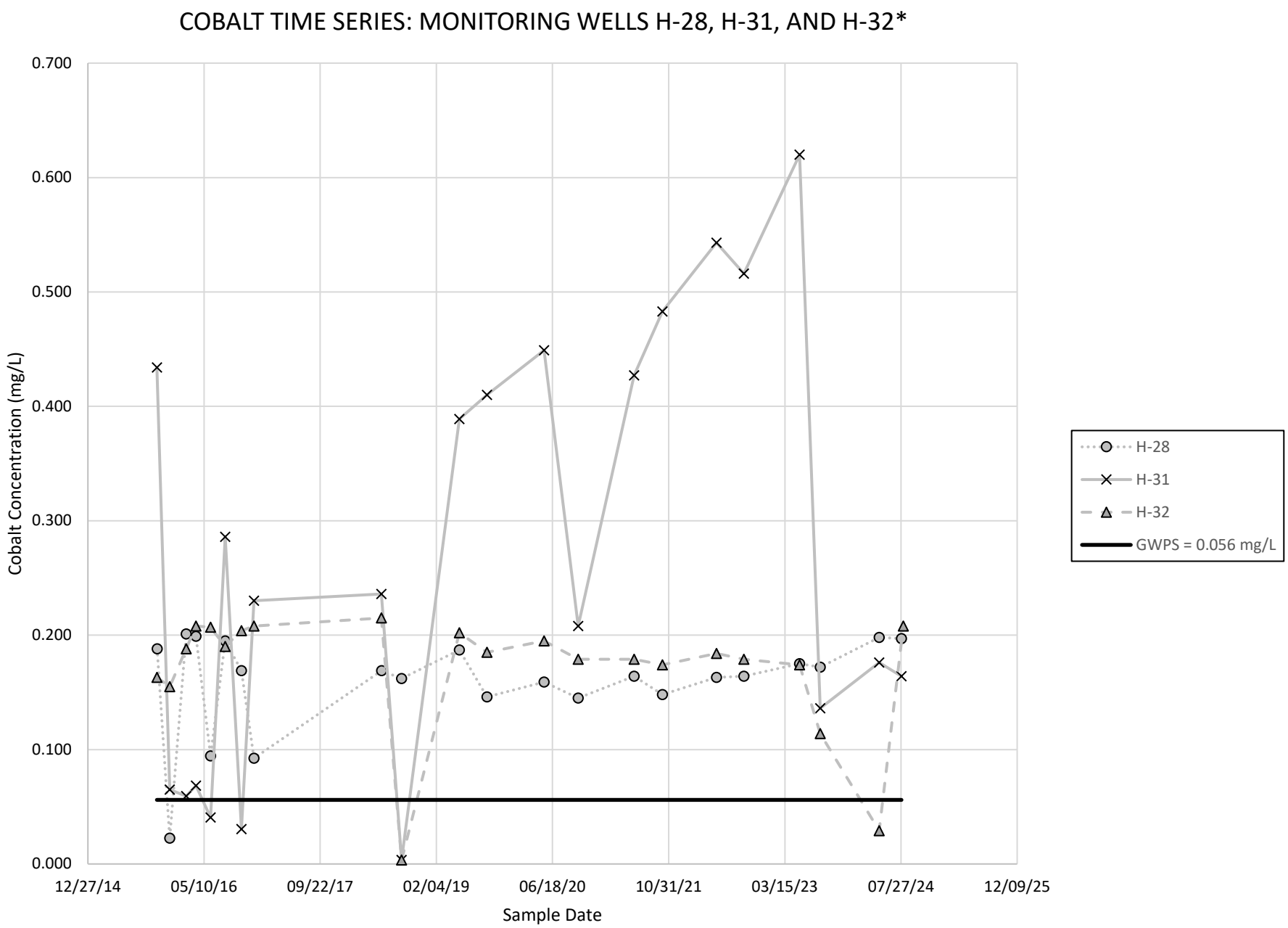
BERYLLIUM AND COBALT

TIME SERIES PLOTS



Notes:

*Graph includes data for monitoring wells where statistically significant levels (SSLs) over the groundwater protection standard (GWPS) have been observed.



Notes:

*Graph includes data for monitoring wells where statistically significant levels (SSLs) over the groundwater protection standard (GWPS) have been observed.