

**Western Refining Southwest LLC**

A subsidiary of Marathon Petroleum Corporation

I-40 Exit 39

Jamestown, NM 87347

December 14, 2022

Mr. Rick Shean, Chief
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505

**RE: Background Concentrations Investigation Report
Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery
EPA ID #NMD000333211**

Dear Mr. Shean,

Attached please find the "Background Soil Investigation Report" per New Mexico Environment Department Approval letter for the "Investigation Work Plan Background Concentrations" dated March 30, 2021.

If you have any questions or comments regarding the information contained herein, please do not hesitate to contact Mr. John Moore at (505) 879-7643.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction of supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,
Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery

Timothy J. Peterkoski
Director, Environmental Auditing & Processes
Marathon Petroleum Company LP

Enclosure

cc:	D. Cobrain, NMED HWB	L. Andress, NMED HWB
	L. Barr, MNOCD	J. Moore, Gallup Refinery
	K. Luka, MPC	H. Jones, Trihydro Corporation



**WESTERN REFINING SOUTHWEST LLC
D/B/A MARATHON GALLUP REFINERY
BACKGROUND SOIL INVESTIGATION REPORT
DECEMBER 14, 2022**



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

Executive Summary

Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, is submitting this background soil investigation report regarding the sampling and analysis of soils outside of impacted areas to support the development of site-specific background concentrations for inorganic constituents in site surface and subsurface soils.

Investigative field activities took place during January 2022. Samples were collected from surface soils (0-1 feet below ground surface (ft bgs)) and subsurface soil (5-6 ft bgs) at 10 locations representative of the Simitarq-Celavar soil type, and at 11 locations representative of the Rehobeth soil type. Sample locations were chosen so as to minimize the possibility of refinery related impacts. Hydrocarbon staining and odors were not observed during the soil boring activities.

Analytical data from the collected soil samples were compared against the New Mexico Environment Department soil screening levels (SSL) for the analyzed constituents. Samples were analyzed for 20 inorganic constituents, with only 2 constituents, manganese and vanadium, being detected at concentrations exceeding their respective SSL. In surface soil samples, the detected concentration of manganese exceeded the construction worker, noncancer SSL at 12 out of the 20 sample locations. In subsurface soil samples, the detected concentration of manganese exceeded the construction worker, noncancer SSL at 13 out of the 20 sample locations, and the detected concentration of vanadium exceeded the construction worker, noncancer SSL at 1 out of the 20 sample locations.



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

Table of Contents

Executive Summary.....	1
Table of Contents.....	2
List of Figures	3
List of Tables	3
List of Appendices	4
List of Acronyms and Abbreviations	5
1.0 Introduction	6
1.1 Background.....	6
1.1.1 Submittal History	6
1.1.2 Sampling Objectives and Site Conditions	6
1.2 Scope of Activities	7
2.0 Field Investigation.....	8
2.1 Sampling Procedures.....	8
2.2 Deviations from Approved Work Plan.....	8
3.0 Analytical Results and Statistical Analysis.....	9
3.2 Quality Assurance/Quality Control.....	9
3.3 Statistical Analysis and Methods.....	9
4.0 Conclusions	11
5.0 References	12
Figures.....	13
Tables.....	14
Appendix A – Boring Logs	15
Appendix B – Laboratory Analytical Reports	16
Appendix C – Data Validation Report	17
Appendix D – Statistical Analysis	18



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

List of Figures

1. Site Location Map, Background Soil Investigation, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
2. Soil Sample Areas, Background Soil Investigation, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
3. Rehobeth Sample Area (North), Background Soil Investigation, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
4. Rehobeth Sample Area (South), Background Soil Investigation, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
5. Simitarq-Celavar Sample Area, Background Soil Investigation, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico

List of Tables

1. Surface Soil Sampling Results and NMED Soil Screening Level Comparison, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
2. Subsurface Soil Sampling Results and NMED Soil Screening Levels Comparison, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
3. Site-Specific Inorganic Background Values, Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

List of Appendices

- A. Boring Logs
- B. Laboratory Analytical Reports
- C. Data Validation Reports
- D. Statistical Analysis



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

List of Acronyms and Abbreviations

AOC	Areas of Concern
amsl	above mean sea level
bgs	below ground surface
ft	feet
NMED	New Mexico Environment Department
QA/QC	quality assurance/quality control
PID	photoionization detector
Refinery	Western Refining Southwest LLC (D/B/A Marathon Gallup Refinery)
SSL	soil screening level
SWMU	Solid Waste Management Units



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

1.0 Introduction

This report summarizes the background soil investigation performed at the Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery (Refinery), located 17 miles east of Gallup, New Mexico (Figure 1). The physical address of the Refinery is I-40, Exit #39 Jamestown, New Mexico, 87347. The purpose of the background soil investigation was to determine the existing concentrations of inorganic constituents in areas unaffected by historical site-related operations. Sampling was conducted in accordance with the "Investigation Work Plan Background Concentrations" (Work Plan) (DiSorbo 2019) as approved by the New Mexico Environment Department (NMED) on March 30, 2021 (NMED 2021).

1.1 Background

The Refinery property covers approximately 810 acres. Refinery operations were indefinitely idled in August 2020. While operating, the Refinery processed crude oil transported by pipeline or tanker truck from the Four Corners region. Various process units operated at the Refinery included crude distillation, reformer, fluidized catalytic cracker, alkylation, sulfur recovery, mercox treater, and hydrotreater. Past operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

On October 31, 2013, NMED issued a renewal of the Post-Closure Care Permit (Permit), which required the investigation of potential Areas of Concern (AOC) and Solid Waste Management Units (SWMU). The Permit was updated in February of 2022. Section IV.J.6 of the Permit requires that the Refinery provide appropriate and statistically defensible background data for use in screening risk assessments, including conducting site attribution analyses and comparison of data sets. This report describes the sample collection and statistical analyses used to support the development of site-specific background concentrations in soil.

1.1.1 Submittal History

In 2018, the Work Plan for the background soils investigation was submitted to NMED. The history of Refinery submittals and NMED responses related to the background soil investigation is as follows:

- Investigation Work Plan, submitted November 28, 2018
- Disapproval, received May 30, 2019
- Response to Disapproval, submitted September 26, 2019
- Approval, received March 20, 2021

1.1.2 Sampling Objectives and Site Conditions

Soil samples collected to establish background concentrations during this investigation were from locations on the far southwestern and northern portions of the Refinery property in areas less likely to have refinery impacts. These locations were chosen to avoid any potential for current or historical



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

impacts from Refinery operations. These areas have no historical or current commercial or industrial activities occurring, and therefore no sample data are available. There have been no reports of spills in the area of the soil sample locations.

There are two primary soil types that exist within the Refinery footprint, the Rehobeth soil and the Simitarq-Celavar soil. The Rehobeth soil type is primarily a silty clay loam and is present in the northern area sample locations (elevation of 6,887 feet [ft] above mean sea level[amsl]) and the southwest area sample locations (elevation of 6,893 ft amsl). The Simitarq-Celavar soil primarily consists of a sandy loam, and the sample area is located south of the Refinery areas with an approximate elevation of 6,926 ft amsl.

1.2 Scope of Activities

Per the Work Plan, the objectives of the investigation were the following:

1. Collection of surface and subsurface soil samples from selected areas of the Refinery property.
2. Laboratory analysis of collected surface soil samples and comparison to NMED soil screening levels (SSLs) for industrial/occupational exposure.
3. Analysis of collected subsurface soil samples and comparison to NMED SSLs for construction worker exposure.
4. Establish existing background concentrations for inorganic constituents for the Refinery property based on statistical comparison of the background data set to the site data set.



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

2.0 Field Investigation

The field investigation took place between January 18 and 20, 2022. Eleven boring locations were sampled in the north and southwest Rehobeth areas, as shown on Figures 2 and 3. Ten boring locations were sampled in the southern Simitarq-Celavar sample area, as shown on Figure 4. Boring logs are presented in Appendix A.

2.1 Sampling Procedures

Soil borings were advanced using a hand auger equipped with a stainless-steel auger head by Trihydro Corporation personnel. No utility locates were performed at the locations due to the shallow sample depth and because a hand auger was used.

Visual and olfactory impacts (staining, odor, etc.), as well as soil composition and conditions (composition, color, etc.) were observed at each location and noted in the boring logs (Appendix A). At each boring location, a surface (0-1 ft below ground surface [bgs]) and subsurface (5-6 ft bgs) soil sample was collected using a decontaminated hand-held stainless steel sampling device. The collected soil sample was placed in a clean laboratory supplied sample jar, labeled, and placed in a sample cooler with ice to be shipped overnight for laboratory analysis. Field duplicates were collected in each sample area (North Rehobeth soil, southwest Rehobeth soil, and south Simitarq-Celavar soil) and are included in the analytical tables. Photoionization detector (PID) readings were completed on collected samples and readings were logged on the boring logs provided in Appendix A. PID readings at each sample location were 0 parts per million.

Surface and subsurface soils encountered during the field investigation activities consisted primarily of silty clay loams and sandy clay loams, with coloring varying between red, brown, and grey. Groundwater was not observed in any of the boring locations, no visual or olfactory impacts were observed, and no water was present in any soil boring.

2.2 Deviations from Approved Work Plan

The Work Plan states that the background soil borings would be completed using direct push or a hollow-stem auger. As stated in section 2.1, the soil borings were completed using a hand auger equipped with a stainless-steel auger head. This deviation was due to the shallow sampling depth.



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

3.0 Analytical Results and Statistical Analysis

Analytical results for the various parameters are summarized below, with the analytical laboratory reports included in Appendix B. Analytical results were compared against the following screening levels and are presented in Tables 1 and 2:

- NMED Risk Assessment Guidance for Site Investigations, Industrial SSL (NMED 2019b)
- NMED Risk Assessment Guidance for Site Investigations, Construction worker SSL (NMED 2019b)

Statistical evaluation of the data is also presented below and a full report is included in Appendix D.

3.2 Quality Assurance/Quality Control

Quality Assurance/Quality Control (QA/QC) soil analytical samples were collected during the investigation. QA/QC samples are included in the laboratory reports provided in Appendix E. The analytical data reported from the receiving laboratory underwent Tier I and Tier II data validation by Trihydro's chemical data validation services group. The Tier II data validation reports are provided in Appendix C. All data qualifiers are included in the analytical tables (Tables 1 and 2).

It is noted that the sample result for cyanide at location BI-9 (5-6 ft) has a qualifier of R, indicating that this data was rejected during data validation. This sample was analyzed 1 day outside of its defined holding time of 14 days, which resulted in an estimated concentration. However, due to this data being non-detect, a concentration cannot be estimated and therefore the data were rejected.

Three equipment blanks were collected during the soil sampling activities. Reported detections in the blank samples included chloride, lead, manganese, nickel, zinc, and cyanide. None of the detections were reported above screening levels. Results from the equipment blanks can be seen in the lab report in Appendix B.

In addition to the blanks that were collected during the field event, field duplicates were also collected from locations BI-3 (0-1 ft bgs), BI-6 (0-1 ft bgs), and BI-21 (0-1 ft bgs). These field duplicates were compared to their parent samples and flagged, if necessary, as described in the Appendix C data validation report. Analytical results for the parent and field duplicate samples are included in Table 1.

3.3 Statistical Analysis and Methods

Statistical evaluation was performed on the soil data obtained from background locations during sampling activities. These background data will be used in the evaluation of Solid Waste Management Units and Areas of Concern as described in Part IV.J.6 of the Resource and Recovery Act Modified Post-Closure Permit (NMED 2017).

A summary of the statistical analysis is provided in Appendix D. The analysis was conducted to establish site-specific soil background threshold values (BTVs) with which to evaluate down-gradient refinery impacts to soil for naturally occurring constituents. A brief summary of this analysis is outlined below:



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

- Seven outliers were identified in the background data:
 - Total antimony in Rehobeth Zone at 5 - 6 ft
 - Chloride in Rehobeth Zone at 0 - 1 ft
 - Chloride in Simitarq-Celavar Zone at 0 - 1 ft
 - Chloride in Simitarq-Celavar Zone at 5 - 6 ft
 - Total manganese in Simitarq-Celavar Zone at 0 - 1 ft
 - Total mercury in Simitarq-Celavar Zone at 5 - 6 ft
 - Total vanadium in Rehobeth Zone at 5 - 6 ft
- Total silver was not detected in any of the samples collected from both zones.
- The following analytes were detected in less than 4 samples in following zone-depths:
 - Total antimony in Simitarq-Celavar Zone at 5 – 6 ft
 - Total cadmium in both Rehobeth and Simitarq-Celavar Zone at both depth
 - Total selenium in both Rehobeth and Simitarq-Celavar Zone at both depth



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

4.0 Conclusions

The background soils investigation was performed, per the Work Plan, to evaluate the background concentration of inorganic constituents at the Refinery site. An evaluation of the analytical data and comparison to the NMED SSLs for the constituents was completed and is included on Tables 1 and 2. In addition, a statistical analysis (Appendix D) was conducted to determine final upper confidence limits that will be used for comparison to soil samples collected across the site in future AOC/SWMU investigations. The proposed background concentrations are presented in Table 3. As can be seen in Table 3, the NMED Construction Worker SSLs for soil are higher than background with the exception of total manganese at 5 to 6 ft bgs in both the Rehobeth (1,042 milligrams per kilogram [mg/kg]) and Simitarq-Celavar (1,866 mg/kg) soil types.

Future AOC and SWMU investigations will use the NMED industrial SSLs for surface soil (0 to 1 ft bgs) comparisons. NMED Construction Worker SSLs will be used for comparison for soil samples collected a depth (greater than 1 ft bgs), with the exception of total manganese. The BTV for total manganese will be used for subsurface soil (greater than 1 ft bgs) instead of the NMED Construction Worker SSL.



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

5.0 References

DiSorbo. 2019. Investigation Work Plan Background Concentrations, Gallup Refinery, Marathon Petroleum Company, Gallup, New Mexico, EPA ID#NMD000333211, Revised September 2019. March.

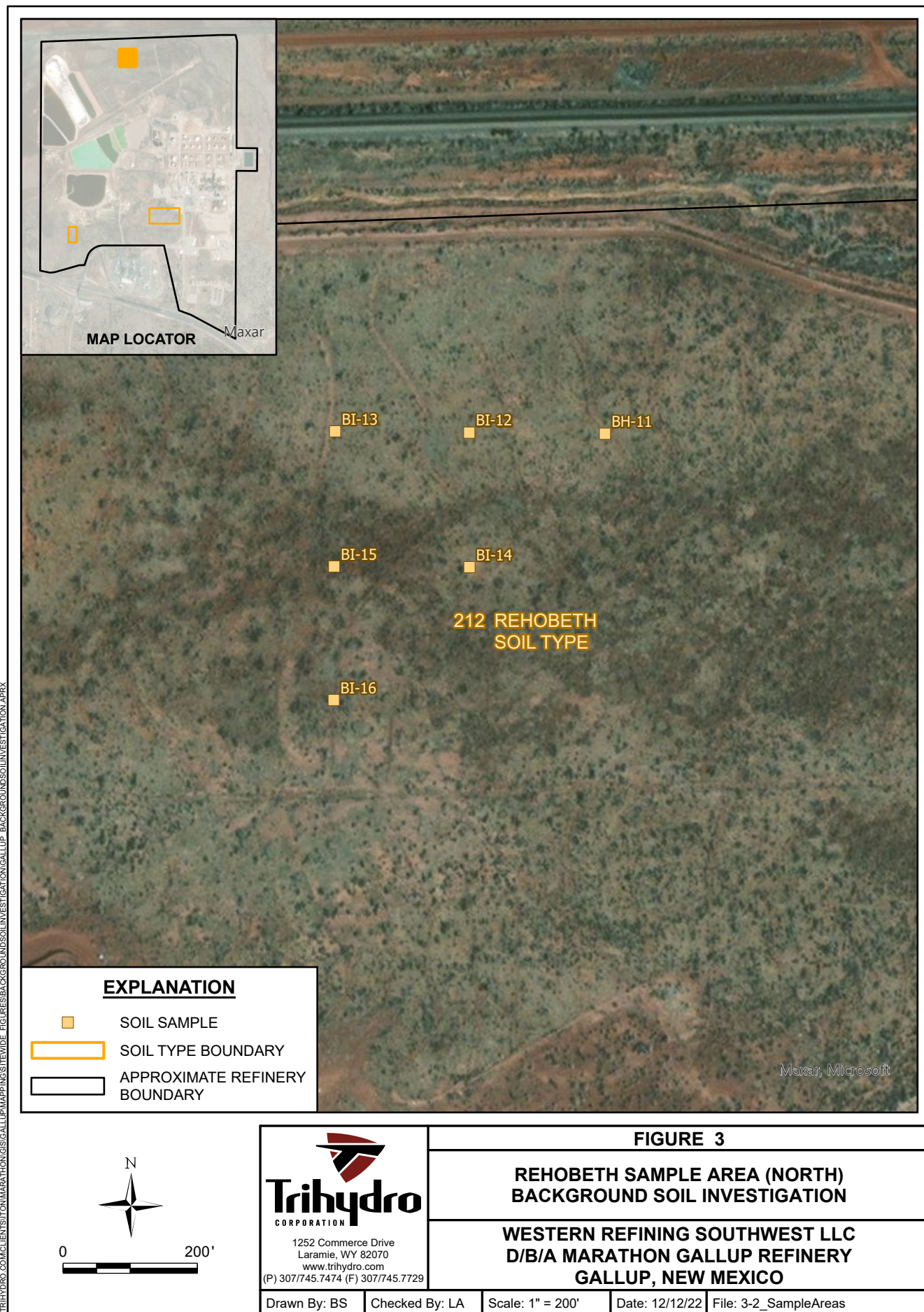
New Mexico Environment Department (NMED). 2017. New Mexico Environment Department (NMED). 2017. Final RCRA Post-Closure Permit, Western Refining Southwest, Inc., Gallup Refinery, EPA ID NM No. NM000333211. Modified September.

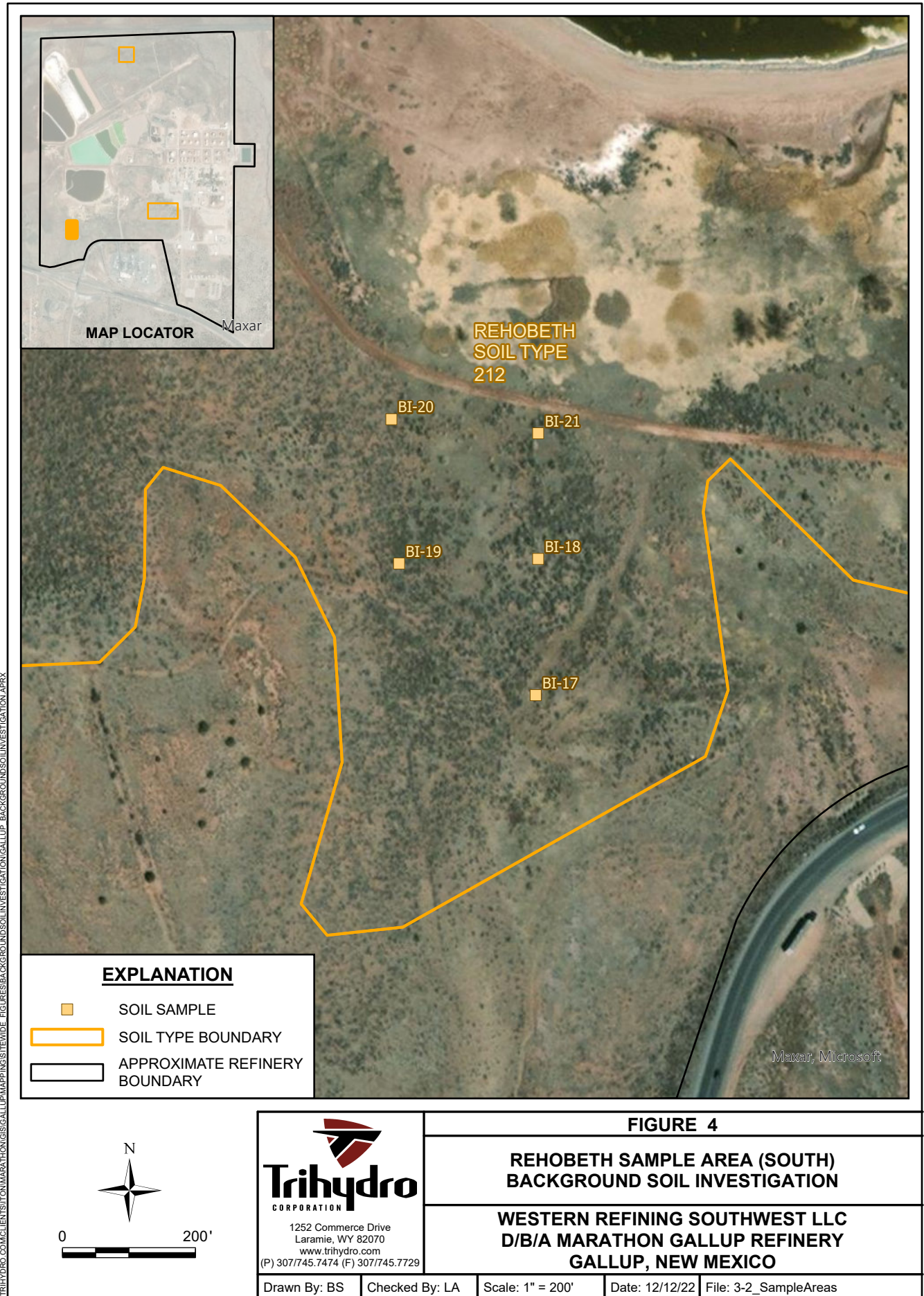


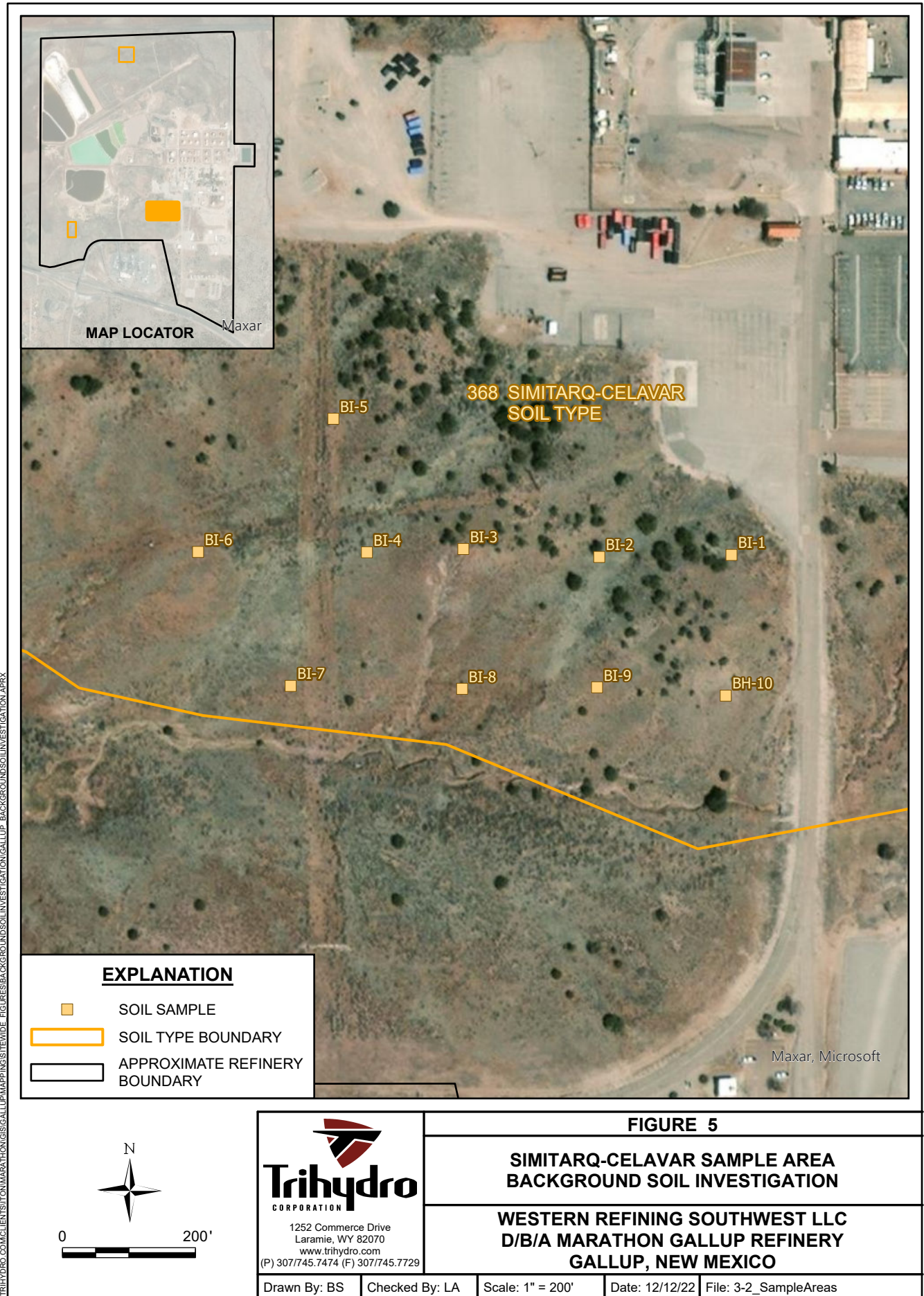
Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

Figures











Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

Tables

TABLE 1. SURFACE SOIL SAMPLING RESULTS AND NMED SOIL SCREENING LEVEL COMPARISON
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Sample ID	Sample Date	Antimony, Total (mg/kg)	Arsenic, Total (mg/kg)	Barium, Total (mg/kg)	Beryllium, Total (mg/kg)	Cadmium, Total (mg/kg)	Chloride (mg/kg)	Chromium, Total (mg/kg)	Cobalt, Total (mg/kg)	Cyanide, Total (mg/kg)	Fluoride, Total (mg/kg)	Iron, Total (mg/kg)	Lead, Total (mg/kg)	Manganese, Total (mg/kg)	Mercury, Total (mg/kg)	Nickel, Total (mg/kg)	Selenium, Total (mg/kg)	Silver, Total (mg/kg)	Uranium, Total (mg/kg)	Vanadium, Total (mg/kg)	Zinc, Total (mg/kg)
BI-1 (0-1 ft)	1/18/2022	0.164 J	2.72 J	502	0.632 J	ND(2.27)	8.35 J	12.7	4.6	0.103 J-	3.38 J	12600	8.83	780	0.0208 J	7.98	0.662 J	ND(2.27)	2.17	23.1	19.6
BI-2 (0-1 ft)	1/18/2022	0.175 J	3.12 J	764	0.704 J	0.15 J	6.39 U	15.1	5.6	0.12 J-	1.99 J	16200	9.92	1480	0.0134 J	9.41	0.763 J	ND(2.02)	1.4	29.1	23.6
BI-3 (0-1 ft)	1/18/2022	0.174 J	2.05 J	655	0.898 J	ND(2.41)	21.9 JB	16.9	6.03	0.0904 J-	16.7	16400	9.4	422	0.00846 J	10.5	ND(2.41)	ND(2.41)	0.686	30.8	23.5
BI-3 (0-1 ft) Dup	1/18/2022	0.214 J	2.37 J	739	1.08 J	ND(2.28)	28.6 JB	19.9	6.27	0.143 J-	16.3	18500	10.4	388	0.00861 J	12	ND(2.28)	ND(2.28)	0.726 J	36.2	26.9
BI-4 (0-1 ft)	1/18/2022	0.155 J	1.53 J	321	0.696 J	ND(2.15)	7.67 J	13.5	5.05	0.101 J-	3.45 J	13600	7.43	549	0.0112 J	8.99	ND(2.15)	ND(2.15)	0.521 J	20.4	20
BI-5 (0-1 ft)	1/18/2022	0.188 J	2.12 J	367	0.728 J	ND(2.12)	5.3 J	14.8	4.8	0.123	5.31 J	16600	9.31	456	0.015 J	8.53	ND(2.12)	ND(2.12)	0.716 J	25.9	19.4
BI-6 (0-1 ft)	1/19/2022	ND(2.34)	1.78 J	210	0.742 J	ND(2.34)	44	11.7	4.39	0.101	5.76 J	9950	6.79	889	0.00874 J	7.67	ND(2.34)	ND(2.34)	0.475 J	19	29.1
BI-6 (0-1 ft) Dup	1/19/2022	ND(2.09)	1.54 J	167	0.571 J	ND(2.09)	42.5	11.6	4.03	0.113	5.03 J	9010	6.14	624	0.023	6.9	ND(2.09)	ND(2.09)	0.423 J	16.8	21.4
BI-7 (0-1 ft)	1/19/2022	ND(2.28)	1.36 J	247	0.559 J	ND(2.28)	9.38 J	8.11	3.98	0.0793	1.77 J	9710	7.08	567	0.0241	6.57	ND(2.28)	ND(2.28)	0.498 J	13.7	21.9
BI-8 (0-1 ft)	1/19/2022	ND(1.95)	ND(3.9)	106	0.555 J	ND(1.95)	173	7.21	3.48	ND(0.0655)	3.42 J	8480	5.36	110	ND(0.0206)	6.01	ND(1.95)	ND(1.95)	0.531 J	12.7	16.8
BI-9 (0-1 ft)	1/19/2022	ND(2.22)	2.46 J	1270	0.876 J	ND(2.22)	11.4 J	13.1	4.92	0.0878 J	1.72 J	12500	8.04	631	0.0181 J	9.27	ND(2.22)	ND(2.22)	0.546 J	20.4	21.8
BI-10 (0-1 ft)	1/19/2022	ND(2.08)	1.81 J	1060	0.582 J	0.19 J	26.8	10.9	4.43	0.0458 J	13.1	10000	7.37	1260	0.0161 J	7.31	ND(2.08)	ND(2.08)	1.23	20.1	18.2
BI-11 (0-1 ft)	1/19/2022	ND(2.32)	1.35 J	233	1.24 J	ND(2.32)	12.9	18.9	7.08	0.119 J	5.03 J	15000	12.6	417	0.00795 J	14.2	ND(2.32)	ND(2.32)	0.766 J	22.6	29.2
BI-12 (0-1 ft)	1/20/2022	0.268 J	1.45 J	213	1.13 J	ND(2.53)	10.2 J	15 J-	6.53	0.0857	6.09 J	15600	12.5	404	0.00947 J	13.1 J-	ND(2.53)	ND(2.53)	0.778 J	19.5 J-	26.5
BI-13 (0-1 ft)	1/20/2022	0.357 J	1.54 J	284	1.32 J	ND(2.42)	18.8	16.9 J-	6.85	0.0748 J	8.84	18100	13.5	412	0.0103 J	13.8 J-	ND(2.42)	ND(2.42)	0.903 J	20.3 J-	28
BI-14 (0-1 ft)	1/20/2022	ND(2.47)	1.24 J	211	1.01 J	ND(2.47)	10.2 J	16.9	6.01	0.0771	3.4 J	12500	9.94	374	0.0169 J	13.1	ND(2.47)	ND(2.47)	0.561 J	20.3	21.8
BI-15 (0-1 ft)	1/20/2022	ND(2.42)	1.41 J	198	1.06 J	ND(2.42)	25.4	18.4	6.66	0.0736 J	11.5	15500	10.6	359	0.0127 J	14.2	ND(2.42)	ND(2.42)	0.626 J	22.5	24.3
BI-16 (0-1 ft)	1/20/2022	ND(2.47)	1.48 J	300	1.33 J	ND(2.47)	15.7	19.2	7.61	0.07 J	9.54	15500	13.6	449	0.00913 J	15	ND(2.47)	ND(2.47)	0.79 J	22.7	24.7
BI-17 (0-1 ft)	1/20/2022	0.3 J	1.75 J	288	0.981 J	0.142 J	16.7	13.5 J-	5.58	0.201	1.65 J	14100	13.4	704	0.0201 J	10.5 J-	ND(2.34)	ND(2.34)	0.435 J	17.1 J-	45.7
BI-18 (0-1 ft)	1/20/2022	0.33 J	2.12 J	286	1.05 J	ND(2.77)	13.8 J	15 J-	5.95	0.143	2.18 J	15300	11.4	693	0.0168 J	10.9 J-	ND(2.77)	ND(2.77)	0.419 J	21.2 J-	39.5
BI-19 (0-1 ft)	1/20/2022	0.214 J	1.85 J	325	0.995 J	ND(2.27)	10.1 J	13.9 J-	5.49	0.124	1.77 J	14500	10.9	665	0.0127 J	10.4 J-	ND(2.27)	ND(2.27)	0.441 J	19 J-	33.7
BI-20 (0-1 ft)	1/20/2022	0.204 J	1.96 J	306	1.04 J	ND(2.18)	29	14.2 J-	5.75	0.133	4.38 J	15500	11	732	0.0144 J	10.8 J-	0.544 J	ND(2.18)	0.435 J	19.5 J-	36.5
BI-21 (0-1 ft)	1/20/2022	0.275 J	2.34 J	422	1.2 J	0.167 J	749 J	18.4 J-	6.17	0.202	ND(6.61)	17900	13.2	725	0.0145 J	12.8 J-	0.654 J	ND(2.45)	0.499 J	25.1 J-	42.7
BI-21 (0-1 ft) Dup	1/20/2022	0.351 J	2.16 J	343	1.3 J	0.162 J	16.5 J	20.7 J-	7.46	0.179	ND(6.72)	20200	15.5	899	0.0145 J	14.3 J-	0.658 J	ND(2.36)	0.534 J	27.3 J-	49.4
Industrial / Occupational, Cancer (mg/kg)		NA	36	NA	312609	416812	NA	505	83362	NA	NA	NA	NA	NA	NA	2885621	NA	NA	NA	NA	NA
Industrial / Occupational, Noncancer (mg/kg)		519	208	254671	2583	1108	NA	313931	388	63	77849	908444	NA	160183	112	25682	6489	6489	3879	6525	389333

Dup - Field duplicate
ft - Foot or feet
J = Estimated concentration
J- = Estimated concentration, biased low
mg/kg - Milligrams per kilogram
NA - Not applicable
ND() - Not detected (reporting limit)
NMED - New Mexico Environment Department

TABLE 2. SUBSURFACE SOIL SAMPLING RESULTS AND NMED SOIL SCREENING LEVEL COMPARISON
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP NEW MEXICO

Sample ID	Sample Date	Antimony, Total (mg/kg)	Arsenic, Total (mg/kg)	Barium, Total (mg/kg)	Beryllium, Total (mg/kg)	Cadmium, Total (mg/kg)	Chloride (mg/kg)	Chromium, Total (mg/kg)	Cobalt, Total (mg/kg)	Cyanide, Total (mg/kg)	Fluoride, Total (mg/kg)	Iron, Total (mg/kg)	Lead, Total (mg/kg)	Manganese, Total (mg/kg)	Mercury, Total (mg/kg)	Nickel, Total (mg/kg)	Selenium, Total (mg/kg)	Silver, Total (mg/kg)	Uranium, Total (mg/kg)	Vanadium, Total (mg/kg)	Zinc, Total (mg/kg)
BI-1 (5-6 ft)		0.122 J	2.36 J	1370	0.683 J	ND(2.05)	351	13.7	6.51	0.055 J-	23	11200	8.82	1540	0.0612	8.13	0.543 J	ND(2.05)	1.77	22.6	21.1
BI-2 (5-6 ft)	1/18/2022	ND(2.29)	1.29 J	250	0.772 J	ND(2.29)	249	12.6	5.37	0.0509 J-	14.3	12400	6.95	773	0.0154 J	8.62	ND(2.29)	ND(2.29)	0.866 J	16.3	22.7
BI-3 (5-6 ft)	1/18/2022	0.151 J	1.41 J	1040	1.14 J	ND(2.09)	209	15.6	5.79	0.0566 J-	18.7	16700	9.78	640	0.00818 J	11.6	ND(2.09)	ND(2.09)	0.858 J	17	24.5
BI-4 (5-6 ft)	1/18/2022	ND(2.09)	1.27 J	279	0.757 J	ND(2.09)	386	13.2	5.55	0.054 J-	27.1	15300	8.91	532	0.00701 J	9.69	ND(2.09)	ND(2.09)	0.723 J	17.3	22.2
BI-5 (5-6 ft)	1/18/2022	0.301 J	1.86 J	635	2.06 J	ND(2.08)	347	30.8	10.1	0.0527 J-	21.4	28300	17.2	397	ND(0.0204)	20.5	0.606 J	ND(2.08)	1.39	37.5	52.2
BI-6 (5-6 ft)	1/19/2022	ND(1.9)	0.98 J	120	0.499 J	ND(1.9)	68.8	7.39	4.06	ND(0.064)	3.81 J	9000	6.4	526	0.00698 J	6.35	ND(1.9)	ND(1.9)	0.526 J	12.1	17.1
BI-7 (5-6 ft)	1/19/2022	ND(2.03)	0.736 J	370	0.557 J	ND(2.03)	96.9	9.14	2.85	0.0325 J	7.27	11400	10.6	211	0.00591 J	4.96	ND(2.03)	ND(2.03)	0.354 J	24.6	14.6
BI-8 (5-6 ft)	1/19/2022	ND(2.21)	1.4 J	503	1.07 J	ND(2.21)	17.8	18.4	7.44	0.0701 J	7.52	17700	12	495	0.00872 J	13.8	ND(2.21)	ND(2.21)	0.476 J	31.2	33.8
BI-9 (5-6 ft)	1/19/2022	ND(2.03)	1.18 J	92	1.12 J	ND(2.03)	183	7.29	2.96	ND(0.0695) R	7.38	12000	9.9	250	ND(0.0219)	6.79	ND(2.03)	ND(2.03)	0.655 J	10.5	17.1
BI-10 (5-6 ft)	1/19/2022	ND(2.02)	3.45 J	365	0.823 J	0.187 J	109	12.1	7.3	0.0362 J	12.6	10800	10.8	1180	0.015 J	11.2	ND(2.02)	ND(2.02)	1.27	15	24.2
BI-11 (5-6 ft)	1/19/2022	0.135 J	1.86 J	387	1.28 J	ND(2.07)	214	20.1	7.46	0.0549 J	9.27	18300	12	407	0.00602 J	15.8	ND(2.07)	ND(2.07)	1.55	25.9	27.7
BI-12 (5-6 ft)	1/20/2022	0.242 J	1.66 J	250	1.04 J	ND(2.22)	107	17.9 J-	6.68	0.0472 J	1.39 J	17700	10.9	410	0.00679 J	14.5 J-	ND(2.22)	ND(2.22)	0.733 J	23.7 J-	29.9
BI-13 (5-6 ft)	1/20/2022	0.293 J	1.55 J	287	1.3 J	ND(2.23)	255	13.8 J-	6.25	0.0599 J	7.56	16600	13	396	0.00602 J	12.9 J-	0.671 J	ND(2.23)	0.965 J	17.9 J-	25.7
BI-14 (5-6 ft)	1/20/2022	ND(2.06)	0.853 J	155	0.771 J	ND(2.06)	158	8.75	3.83	0.054 J	10.1	8910	7.9	336	0.00708 J	7.88	ND(2.06)	ND(2.06)	0.639 J	12.5	13.6
BI-15 (5-6 ft)	1/20/2022	2.9	2.06 J	339	1.43 J	ND(2.07)	113	25.3 J-	8.57	0.0541 J	4.8 J	24100	12.5	493	0.00634 J	18.7 J-	0.605 J	ND(2.07)	1.08	34.9 J-	42.3
BI-16 (5-6 ft)	1/20/2022	ND(1.96)	1.26 J	198	0.773 J	ND(1.96)	210	10.9	4.49	0.0655 J	4.61 J	10200	9.61	347	0.00825 J	8.72	ND(1.96)	ND(1.96)	0.762 J	15.9	17
BI-17 (5-6 ft)	1/20/2022	0.156 J	1.31 J	328	0.709 J	ND(2.21)	178	8.56 J-	4.25	0.065 J	2.5 J	10200	7.59	584	0.00753 J	7.01 J-	ND(2.21)	ND(2.21)	0.37 J	16.2 J-	22.5
BI-18 (5-6 ft)	1/20/2022	0.215 J	1.54 J	222	0.93 J	ND(2.29)	213	7.63 J-	4.45	0.106	1.6 J	11100	10.9	784	0.00885 J	7.48 J-	ND(2.29)	ND(2.29)	0.373 J	12.7 J-	26.6
BI-19 (5-6 ft)	1/20/2022	0.225 J	1.68 J	400	0.979 J	0.137 J	298	12.7 J-	5.16	0.115	1.17 J	14000	11	687	0.0101 J	10.3 J-	ND(2.19)	ND(2.19)	0.421 J	16.3 J-	31.2
BI-20 (5-6 ft)	1/20/2022	ND(2.12)	2.31 J	182	1.06 J	ND(2.12)	232	12.2 J-	4.73	0.038 J	11.1	8480	21	711	0.00682 J	11.8 J-	ND(2.12)	ND(2.12)	2.88	2840 J-	20.2
BI-21 (5-6 ft)	1/20/2022	0.153 J	1.33 J	309	0.882 J	ND(2.49)	109	10.2 J-	5.7	0.133	ND(6.38)	12100	9.95	800	0.00634 J	8.92 J-	ND(2.49)	ND(2.49)	0.446 J	13.7 J-	31.2
Construction Worker, Cancer (mg/kg)		NA	216	NA	2707	3609	NA	468	722	NA	NA	NA	NA	NA	NA	24985	NA	NA	NA	NA	NA
Construction Worker, Noncancer (mg/kg)		142	41	4392	148	72	NA	134	37	12	18082	247758	NA	464	21	753	1753	1770	277	614	106182

ft - Foot or feet
J - Estimated concentration
J- = Estimated concentration, biased low
mg/kg - Milligrams per kilogram
NA - Not applicable
ND() - Not detected (reporting limit)
NMED - New Mexico Environment Department
R = Rejected, data not usable

Notes:
1. Bolded values indicate an exceedance of a soil screening level.

TABLE 3. SITE-SPECIFIC INORGANIC BACKGROUND VALUES
WESTERN REFINING SOUTHWEST LLC, D/B/A MARATHON GALLUP REFINERY, GALLUP NEW MEXICO

Analyte	Rehobeth Soil Type				Simitarq-Celavar Soil Type			
	UTL95-95 (Actual CC if not 95%) (mg/kg)	NMED SSL, Industrial (mg/kg)	UTL95-95 (Actual CC if not 95%) (mg/kg)	NMED SSL, Construction Worker (mg/kg)	UTL95-95 (Actual CC if not 95%) (mg/kg)	NMED SSL, Industrial (mg/kg)	UTL95-95 (Actual CC if not 95%) (mg/kg)	NMED SSL, Construction Worker (mg/kg)
	0-1 (ft)		5-6 (ft)		0-1 (ft)		5-6 (ft)	
Antimony, Total	0.451	519	0.35	142	0.227	519	0.301	142
Arsenic, Total ¹	2.668	35.9	2.718	41.2	3.94	35.9	4.502	41.2
Barium, Total	460.2	255,000	511.2	4,390	1668	255,000	1700	4,390
Beryllium, Total ¹	1.487	2,580	1.683	148	1.05	2,580	2.554	148
Cadmium, Total ¹	0.167	1,110	0.137	72.1	0.19	1,110	0.187	72.1
Chloride	35.23	58,400,000	367.1	15,900,000	74.04	58,400,000	583.2	15,900,000
Chromium, Total ¹	22.43	505	28.97	134	21.25	505	39.01	134
Cobalt, Total ¹	8.222	388	9.805	36.7	6.884	388	12.23	36.7
Cyanide, Total	0.295	63.3	0.181	12.1	0.169	63.3	0.0855	12.1
Fluoride, Total	14.55	7,780,000	15.36	18,100	27.62	7,780,000	37.38	18,100
Iron, Total	19832	908,000	27516	248,000	21472	908,000	33343	248,000
Lead, Total	15.79	800	22.78	800	12.07	800	18.9	800
Manganese, Total	732 (0.431) ³	160,000	1042	464	1898	160,000	1866	464
Mercury, Total	0.0239	112	0.0109	20.7	0.0309	112	0.0249	20.7
Nickel, Total ¹	17.35	25,700	22.03	753	12.25	25,700	23.29	753
Selenium, Total ²	0.654	6,490	0.671	1,750	0.763	6,490	0.606	1,750
Silver, Total	-- ⁴	6,490	-- ⁴	1,770	-- ⁴	6,490	-- ⁴	1,770
Uranium, Total	1.102	3,880	3.613	277	2.17 (0.401) ³	3,880	2.207	277
Vanadium, Total	27.13	6,530	43.86	614	38.74	6,530	45.44	614
Zinc, Total	54.79	389,000	48.31	106,000	31.55	389,000	62.3	106,000

Abbreviations:

%: Percent

--: Not applicable

CC: Confidence Coefficient

ft: Feet

NMED SSL: New Mexico Environment Department Soil Screening Level, June 2022

mg/kg: milligrams per kilogram

UTL: Upper Tolerance Limit (of one-sided tolerance interval)

Notes:

Bolded values are the site specific background levels. These values will be used for future investigations.

¹If cancer and noncancer values were provided, the lower value was used.²If a UTL95-95 could not be calculated due to outlier, the maximum detected concentration was used.³(Confidence Coefficient) based on the nonparametric highest; maximum detected concentration was used.⁴All samples were nondetect; UTL95-95 could not be calculated.



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

Appendix A – Boring Logs



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-1

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/18/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1.5: Gravel, Red Clay, Moist, Small Cobbles		Sampled between 0-1'
2					0	
4						
6				1.5-6: Hard, dry, Red/Brown Clay, sandy clay with gravel; BR-RL; f-c Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID	BI-2
Site ID	Gallup Refinery, Gallup, NM
Total Drilled Depth	6 feet-bgs
Date/Time Total Depth Reached	
Water Level (bgs)	NA
Geologist	W. Coles
Checked by/Date	

Project Name		Project Number	
Background Soil Investigation		697-098-001	
Drilling Company	Driller	Ground Elevation	
YellowJacket			
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date
			1/18/2022
Type of Sampling Device		Water Level (bgs)	
		NA	
Sample Hammer		Geologist	Checked by/Date
Type	Driving Weight	Drop	
			W. Coles

Location Description (include sketch in field logbook)

Depth (ft)	Interval	Recovery	Blow Counts	Description	PID Reading (ppm)	Remarks
				(Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)		(Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-6: Gravely, f-c, Sandy Clay		Sampled between 0-1'
2				Total Depth: 6'	0	Sampled between 5-6'
4						
6						
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-3

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/18/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type Driving Weight Drop			Geologist W. Coles	Checked by/Date

Location Description (include sketch in field logbook)

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-2: Cobbles, f-c, Sandy gravel Clay		Sampled between 0-1' Duplicate Sample 0-1'
2					0	
4						
6				2-6: Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

				LOCATION ID BI-4		
Project Name Background Soil Investigation			Project Number 697-098-001			
Drilling Company YellowJacket			Driller		Site ID Gallup Refinery, Gallup, NM	
Drilling Equipment		Drilling Method	Borehole Diameter	Ground Elevation	Total Drilled Depth 6 feet-bgs	
				Drilling Date 1/18/2022	Date/Time Total Depth Reached	
Type of Sampling Device				Water Level (bgs) NA		
Sample Hammer Type Driving Weight Drop				Geologist W. Coles	Checked by/Date	
Location Description (include sketch in field logbook)						
Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-6: f-c, Sandy clay Total Depth: 6'	0	Sampled between 0-1' Sampled between 5-6'
2						
4						
6						
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-5

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/18/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1.5: Red-Brown Clay, f-c, gravely		Sampled between 0-1'
2					0	
4						
6				1.5-6: Red/Brown Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-6

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/19/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type Driving Weight Drop			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-2: Red/Brown Clay		Sampled between 0-1' Duplicate Sample 0-1'
2					0	
4						
6				2-6: Red Clay packed Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-7

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/19/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1.5: Red/Brown Gravely Clay		Sampled between 0-1'
2					0	
4						
6				1.5-6: Red/Brown packed clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-8

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/19/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1: White gravelly Clay		Sampled between 0-1' Duplicate Sample 0-1'
2					0	
4						
6				2-6: Red/brown packed clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-9

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/19/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date

Location Description (include sketch in field logbook)

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-2: Red Clay		Sampled between 0-1'
2				2-4.5: Packed red clay	0	
4				4.5-5: White gravelly		
6				5-6: Packed Red Clay		Sampled between 5-6'
8				Total Depth: 6'	0	
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-10

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/19/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type Driving Weight Drop			Geologist W. Coles	Checked by/Date

Location Description (include sketch in field logbook)

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-2: gravel, grey		Sampled between 0-1'
2					0	
4						
6				2-6: Red/brown Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-11

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/19/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date

Location Description (include sketch in field logbook)

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-2: Red hard-packed Clay	0	Sampled between 0-1'
2						
4						
6				2-6: Red Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-12

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/20/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-2: Red hard-packed Clay		Sampled between 0-1'
2					0	
4						
6				2-6: Red Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-13

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/20/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date

Location Description (include sketch in field logbook)

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1.5: Red packed Clay		Sampled between 0-1'
2					0	
4						
6				1.5-6: Red Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-14

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/20/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-2.5: Red hard-packed Clay		Sampled between 0-1'
2					0	
4						
6				2.5-6: Red Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-15

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM	
Drilling Company YellowJacket		Driller		Ground Elevation	
Drilling Equipment		Drilling Method		Date/Time Total Depth Reached 1/20/2022	
Type of Sampling Device		Borehole Diameter		Water Level (bgs) NA	
Sample Hammer		Geologist W. Coles		Checked by/Date	
Type		Driving Weight		Drop	

Location Description (include sketch in field logbook)

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1.5: Red packed Clay		Sampled between 0-1'
2					0	
4						
6				1.5-6: Red Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-16

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/20/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type Driving Weight Drop			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-2: Red packed Clay		Sampled between 0-1'
2					0	
4						
6				2-6: Red Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-17

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM	
Drilling Company YellowJacket		Driller		Ground Elevation	
Drilling Equipment		Drilling Method		Date/Time Total Depth Reached 1/20/2022	
Type of Sampling Device		Borehole Diameter		Water Level (bgs) NA	
Sample Hammer		Geologist W. Coles		Checked by/Date	
Type		Driving Weight		Drop	

Location Description (include sketch in field logbook)

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1.5: Red packed Clay		Sampled between 0-1'
2					0	
4						
6				1.5-6: Red Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-18

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/20/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-2: Red/brown packed Clay		Sampled between 0-1'
2					0	
4						
6				2-6: Red Clay Total Depth: 6'	0	Sampled between 5-6'
8						
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-19

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM	
Drilling Company YellowJacket		Driller		Ground Elevation	
Drilling Equipment		Drilling Method		Date/Time Total Depth Reached 1/20/2022	
Type of Sampling Device		Borehole Diameter		Water Level (bgs) NA	
Sample Hammer		Geologist W. Coles		Checked by/Date	
Type		Driving Weight		Drop	
Location Description (include sketch in field logbook)					

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1: Red/Brown Clay		Sampled between 0-1'
2				1-2.5: Red packed Clay	0	
4						
6				2.5-6: Red Clay		Sampled between 5-6'
8				Total Depth: 6'	0	
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-20
Site ID
Gallup Refinery, Gallup, NM
Total Drilled Depth
6 feet-bgs
Date/Time Total Depth Reached
Water Level (bgs)
NA
Geologist
W. Coles
Checked by/Date

Project Name		Project Number	
Background Soil Investigation		697-098-001	
Drilling Company		Driller	
YellowJacket			
Ground Elevation		Drilling Date	
		1/20/2022	
Drilling Equipment		Drilling Method	
Borehole Diameter		Date/Time Total Depth Reached	
Type of Sampling Device		Water Level (bgs)	
		NA	
Sample Hammer		Geologist	
		W. Coles	
Type		Driving Weight	
		Drop	

Location Description (include sketch in field logbook)

Depth (ft)	Interval	Recovery	Blow Counts	Description	PID Reading (ppm)	Remarks
				(Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)		(Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1.5: Red/brown clay		Sampled between 0-1'
2				1.5-2.5: Red packed clay	0	
4						
6				2.5-6: Red Clay		Sampled between 5-6'
8				Total Depth: 6'	0	
10						
12						
14						
16						
18						
20						



Lithology Log

Sheet 1 of 1

LOCATION ID
BI-21

Project Name Background Soil Investigation		Project Number 697-098-001		Site ID Gallup Refinery, Gallup, NM
Drilling Company YellowJacket		Driller	Ground Elevation	Total Drilled Depth 6 feet-bgs
Drilling Equipment	Drilling Method	Borehole Diameter	Drilling Date 1/20/2022	Date/Time Total Depth Reached
Type of Sampling Device			Water Level (bgs) NA	
Sample Hammer Type _____ Driving Weight _____ Drop _____			Geologist W. Coles	Checked by/Date
Location Description (include sketch in field logbook)				

Depth (ft)	Interval	Recovery	Blow Counts	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	PID Reading (ppm)	Remarks (Include all sample types & depth, odor, organic vapor measurements, etc.)
0				0-1: Red/brown Clay		Sampled between 0-1'
2					0	
4						
6				1-6: Red Clay Total Depth: 6'	0	Sampled between 5-6' Duplicate between 5-6'
8						
10						
12						
14						
16						
18						
20						



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

Appendix B – Laboratory Analytical Reports



Environment Testing America

ANALYTICAL REPORT

Eurofins Houston
4145 Greenbriar Dr
Stafford, TX 77477
Tel: (281)240-4200

Laboratory Job ID: 860-19628-1

Client Project/Site: Marathon Gallup Refinery Soils

For:

Trihydro Corporation
1252 Commerce Drive
Laramie, Wyoming 82070

Attn: Mackensie Swift

A handwritten signature in black ink that reads "Sachin Kudchadkar".

Authorized for release by:
2/4/2022 5:07:14 PM

Sachin Kudchadkar, Senior Project Manager
(713)690-4444
Sachin.Kudchadkar@Eurofinset.com

LINKS

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results through

TotalAccess

Have a Question?



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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Laboratory Job ID: 860-19628-1

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	5
Detection Summary	7
Client Sample Results	26
QC Sample Results	58
QC Association Summary	78
Lab Chronicle	94
Certification Summary	118
Method Summary	119
Sample Summary	120
Chain of Custody	121
Receipt Checklists	127

1

2

3

4

5

6

7

8

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10

11

12

13

14

Definitions/Glossary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Eurofins Houston

Definitions/Glossary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Case Narrative

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Job ID: 860-19628-1**Laboratory: Eurofins Houston****Narrative**
Job Narrative
860-19628-1
Receipt

The samples were received on 1/25/2022 12:02 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.3°C, 2.3°C, 2.4°C, 4.3°C and 5.3°C

HPLC/IC

Method 9056A_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-38740 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Method 6020A: The method blank for preparation batch 860-38889 and analytical batch 860-39033 contained Manganese and Zinc above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020A: The following samples were diluted to bring the concentration of target analytes within the calibration range:

DUP-01-18-22 (860-19628-1), BI-1 (0-1) (860-19628-3), BI-1 (5-6) (860-19628-4), BI-2 (0-1) (860-19628-5), BI-2 (5-6) (860-19628-6), BI-3 (0-1) (860-19628-7), BI-3 (5-6) (860-19628-8), BI-4 (0-1) (860-19628-9), BI-4 (5-6) (860-19628-10) and BI-5 (0-1) (860-19628-11).

Elevated reporting limits (RLs) are provided.

Method 6020A: The following samples were diluted to bring the concentration of target analytes within the calibration range: BI-5 (5-6) (860-19628-12), BI-6 (0-1) (860-19628-13), BI-7 (5-6) (860-19628-16), BI-8 (5-6) (860-19628-18), BI-9 (0-1) (860-19628-19), BI-9 (5-6) (860-19628-20), BI-10 (0-1) (860-19628-21), BI-10 (5-6) (860-19628-22), BI-11 (0-1) (860-19628-23), BI-11 (5-6) (860-19628-24), DUP-1-19-22 (860-19628-25), BI-14 (0-1) (860-19628-28), BI-14 (5-6) (860-19628-29), BI-16 (0-1) (860-19628-30), BI-16 (5-6) (860-19628-31), BI-15 (0-1) (860-19628-32), (860-19628-A-12-C MS) and (860-19628-A-12-D MSD). Elevated reporting limits (RLs) are provided.

Method 6020A: The method blank for preparation batch 860-39241 and analytical batch 860-40068 contained Barium and Zinc above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 6020A: The method blank for preparation batch 860-39241 and analytical batch 860-40068 contained Manganese above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 6020A: The following samples were diluted to bring the concentration of target analytes within the calibration range: BI-15 (5-6) (860-19628-33), BI-13 (0-1) (860-19628-34), BI-13 (5-6) (860-19628-35), BI-12 (0-1) (860-19628-36), BI-12 (5-6) (860-19628-37), BI-17 (0-1) (860-19628-38), BI-18 (0-1) (860-19628-40), BI-19 (0-1) (860-19628-42), BI-19 (5-6) (860-19628-43), BI-20 (0-1) (860-19628-44), BI-20 (5-6) (860-19628-45), BI-21 (0-1) (860-19628-46), DUP-1-20-22 (860-19628-48), (860-19628-A-33-D MS ^100) and (860-19628-A-33-E MSD ^100). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 9012A: The hold time was missed on the sample as the analyst mixed up the hold time expiration date (02/02/22) and sample due date (02/3/22) BI-9 (0-1) (860-19628-19), BI-9 (5-6) (860-19628-20), BI-10 (0-1) (860-19628-21), BI-10 (5-6) (860-19628-22), BI-11 (0-1) (860-19628-23) and EB-1-19-22 (860-19628-26)

Method 9012A: The hold time was missed on the sample as the analyst mixed up the hold time expiration date (02/02/22) and sample

Case Narrative

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Job ID: 860-19628-1 (Continued)

Laboratory: Eurofins Houston (Continued)

due date (02/3/22)BI-9 (0-1) (860-19628-19), BI-9 (5-6) (860-19628-20), BI-10 (0-1) (860-19628-21), BI-10 (5-6) (860-19628-22), BI-11 (0-1) (860-19628-23) and EB-1-19-22 (860-19628-26)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: DUP-01-18-22

Lab Sample ID: 860-19628-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	28.6		12.9	4.57	mg/Kg	1		✱	9056A	Total/NA
Fluoride	16.3		6.46	1.29	mg/Kg	1		✱	9056A	Total/NA
Antimony	0.214	J	2.28	0.136	mg/Kg	10		✱	6020A	Total/NA
Arsenic	2.37	J	4.57	0.704	mg/Kg	10		✱	6020A	Total/NA
Barium	739		4.57	0.396	mg/Kg	10		✱	6020A	Total/NA
Beryllium	1.08	J	2.28	0.211	mg/Kg	10		✱	6020A	Total/NA
Chromium	19.9		4.57	0.310	mg/Kg	10		✱	6020A	Total/NA
Cobalt	6.27		2.28	0.131	mg/Kg	10		✱	6020A	Total/NA
Lead	10.4		2.28	0.221	mg/Kg	10		✱	6020A	Total/NA
Iron	18500		228	26.8	mg/Kg	100		✱	6020A	Total/NA
Manganese	388		2.28	0.291	mg/Kg	10		✱	6020A	Total/NA
Nickel	12.0		2.28	0.168	mg/Kg	10		✱	6020A	Total/NA
Vanadium	36.2		2.28	0.228	mg/Kg	10		✱	6020A	Total/NA
Zinc	26.9		4.57	0.505	mg/Kg	10		✱	6020A	Total/NA
Uranium	0.726	J	1.14	0.0683	mg/Kg	10		✱	6020A	Total/NA
Mercury	0.00861	J	0.0246	0.00473	mg/Kg	1		✱	7471A	Total/NA
Cyanide, Total	0.143	F1	0.0753	0.0374	mg/Kg	1		✱	9012A	Total/NA

Client Sample ID: EB-01-18-22

Lab Sample ID: 860-19628-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	0.598	F1	0.500	0.200	mg/L	1			9056A	Total/NA
Lead	0.000189	J	0.00200	0.000152	mg/L	1			6020A	Total/NA
Manganese	0.000540	J B	0.00200	0.000199	mg/L	1			6020A	Total/NA
Nickel	0.000860	J	0.00200	0.000292	mg/L	1			6020A	Total/NA
Zinc	0.00256	J B	0.00400	0.000802	mg/L	1			6020A	Total/NA

Client Sample ID: BI-1 (0-1)

Lab Sample ID: 860-19628-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	8.35	J	12.3	4.37	mg/Kg	1		✱	9056A	Total/NA
Fluoride	3.38	J	6.17	1.23	mg/Kg	1		✱	9056A	Total/NA
Antimony	0.164	J	2.27	0.135	mg/Kg	10		✱	6020A	Total/NA
Arsenic	2.72	J	4.54	0.701	mg/Kg	10		✱	6020A	Total/NA
Barium	502		4.54	0.394	mg/Kg	10		✱	6020A	Total/NA
Beryllium	0.632	J	2.27	0.210	mg/Kg	10		✱	6020A	Total/NA
Chromium	12.7		4.54	0.308	mg/Kg	10		✱	6020A	Total/NA
Cobalt	4.60		2.27	0.130	mg/Kg	10		✱	6020A	Total/NA
Lead	8.83		2.27	0.220	mg/Kg	10		✱	6020A	Total/NA
Iron	12600		227	26.6	mg/Kg	100		✱	6020A	Total/NA
Manganese	780		2.27	0.289	mg/Kg	10		✱	6020A	Total/NA
Nickel	7.98		2.27	0.167	mg/Kg	10		✱	6020A	Total/NA
Selenium	0.662	J	2.27	0.564	mg/Kg	10		✱	6020A	Total/NA
Vanadium	23.1		2.27	0.227	mg/Kg	10		✱	6020A	Total/NA
Zinc	19.6		4.54	0.503	mg/Kg	10		✱	6020A	Total/NA
Uranium	2.17		1.14	0.0679	mg/Kg	10		✱	6020A	Total/NA
Mercury	0.0208	J	0.0232	0.00445	mg/Kg	1		✱	7471A	Total/NA
Cyanide, Total	0.103		0.0713	0.0353	mg/Kg	1		✱	9012A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-1 (5-6)

Lab Sample ID: 860-19628-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	351		10.9	3.87	mg/Kg	1	✱	9056A	Total/NA
Fluoride	23.0		5.47	1.09	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.122	J	2.05	0.122	mg/Kg	10	✱	6020A	Total/NA
Arsenic	2.36	J	4.11	0.634	mg/Kg	10	✱	6020A	Total/NA
Barium	1370		4.11	0.356	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.683	J	2.05	0.190	mg/Kg	10	✱	6020A	Total/NA
Chromium	13.7		4.11	0.279	mg/Kg	10	✱	6020A	Total/NA
Cobalt	6.51		2.05	0.118	mg/Kg	10	✱	6020A	Total/NA
Lead	8.82		2.05	0.199	mg/Kg	10	✱	6020A	Total/NA
Iron	11200		205	24.1	mg/Kg	100	✱	6020A	Total/NA
Manganese	1540		20.5	2.61	mg/Kg	100	✱	6020A	Total/NA
Nickel	8.13		2.05	0.151	mg/Kg	10	✱	6020A	Total/NA
Selenium	0.543	J	2.05	0.510	mg/Kg	10	✱	6020A	Total/NA
Vanadium	22.6		2.05	0.205	mg/Kg	10	✱	6020A	Total/NA
Zinc	21.1		4.11	0.455	mg/Kg	10	✱	6020A	Total/NA
Uranium	1.77		1.03	0.0614	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0612		0.0198	0.00380	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0550	J	0.0657	0.0326	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-2 (0-1)

Lab Sample ID: 860-19628-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.39	J	11.4	4.05	mg/Kg	1	✱	9056A	Total/NA
Fluoride	1.99	J	5.72	1.14	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.175	J	2.02	0.120	mg/Kg	10	✱	6020A	Total/NA
Arsenic	3.12	J	4.03	0.622	mg/Kg	10	✱	6020A	Total/NA
Barium	764		4.03	0.350	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.704	J	2.02	0.186	mg/Kg	10	✱	6020A	Total/NA
Cadmium	0.150	J	2.02	0.117	mg/Kg	10	✱	6020A	Total/NA
Chromium	15.1		4.03	0.273	mg/Kg	10	✱	6020A	Total/NA
Cobalt	5.60		2.02	0.115	mg/Kg	10	✱	6020A	Total/NA
Lead	9.92		2.02	0.195	mg/Kg	10	✱	6020A	Total/NA
Iron	16200		202	23.6	mg/Kg	100	✱	6020A	Total/NA
Manganese	1480		20.2	2.56	mg/Kg	100	✱	6020A	Total/NA
Nickel	9.41		2.02	0.148	mg/Kg	10	✱	6020A	Total/NA
Selenium	0.763	J	2.02	0.500	mg/Kg	10	✱	6020A	Total/NA
Vanadium	29.1		2.02	0.202	mg/Kg	10	✱	6020A	Total/NA
Zinc	23.6		4.03	0.446	mg/Kg	10	✱	6020A	Total/NA
Uranium	1.40		1.01	0.0602	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0134	J	0.0205	0.00394	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.120		0.0696	0.0345	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-2 (5-6)

Lab Sample ID: 860-19628-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	249		11.3	4.01	mg/Kg	1	✱	9056A	Total/NA
Fluoride	14.3		5.66	1.13	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.29	J	4.58	0.707	mg/Kg	10	✱	6020A	Total/NA
Barium	250		4.58	0.397	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.772	J	2.29	0.212	mg/Kg	10	✱	6020A	Total/NA
Chromium	12.6		4.58	0.311	mg/Kg	10	✱	6020A	Total/NA
Cobalt	5.37		2.29	0.131	mg/Kg	10	✱	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-2 (5-6) (Continued)

Lab Sample ID: 860-19628-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lead	6.95		2.29	0.222	mg/Kg	10	✱		6020A	Total/NA
Iron	12400		229	26.9	mg/Kg	100	✱		6020A	Total/NA
Manganese	773		2.29	0.292	mg/Kg	10	✱		6020A	Total/NA
Nickel	8.62		2.29	0.168	mg/Kg	10	✱		6020A	Total/NA
Vanadium	16.3		2.29	0.229	mg/Kg	10	✱		6020A	Total/NA
Zinc	22.7		4.58	0.507	mg/Kg	10	✱		6020A	Total/NA
Uranium	0.866	J	1.15	0.0685	mg/Kg	10	✱		6020A	Total/NA
Mercury	0.0154	J	0.0212	0.00408	mg/Kg	1	✱		7471A	Total/NA
Cyanide, Total	0.0509	J	0.0670	0.0332	mg/Kg	1	✱		9012A	Total/NA

Client Sample ID: BI-3 (0-1)

Lab Sample ID: 860-19628-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	21.9		12.8	4.54	mg/Kg	1	✱		9056A	Total/NA
Fluoride	16.7		6.41	1.28	mg/Kg	1	✱		9056A	Total/NA
Antimony	0.174	J	2.41	0.143	mg/Kg	10	✱		6020A	Total/NA
Arsenic	2.05	J	4.82	0.744	mg/Kg	10	✱		6020A	Total/NA
Barium	655		4.82	0.418	mg/Kg	10	✱		6020A	Total/NA
Beryllium	0.898	J	2.41	0.223	mg/Kg	10	✱		6020A	Total/NA
Chromium	16.9		4.82	0.327	mg/Kg	10	✱		6020A	Total/NA
Cobalt	6.03		2.41	0.138	mg/Kg	10	✱		6020A	Total/NA
Lead	9.40		2.41	0.233	mg/Kg	10	✱		6020A	Total/NA
Iron	16400		241	28.3	mg/Kg	100	✱		6020A	Total/NA
Manganese	422		2.41	0.307	mg/Kg	10	✱		6020A	Total/NA
Nickel	10.5		2.41	0.177	mg/Kg	10	✱		6020A	Total/NA
Vanadium	30.8		2.41	0.241	mg/Kg	10	✱		6020A	Total/NA
Zinc	23.5		4.82	0.534	mg/Kg	10	✱		6020A	Total/NA
Uranium	0.686	J	1.21	0.0721	mg/Kg	10	✱		6020A	Total/NA
Mercury	0.00846	J	0.0260	0.00501	mg/Kg	1	✱		7471A	Total/NA
Cyanide, Total	0.0904		0.0755	0.0374	mg/Kg	1	✱		9012A	Total/NA

Client Sample ID: BI-3 (5-6)

Lab Sample ID: 860-19628-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	209		11.9	4.20	mg/Kg	1	✱		9056A	Total/NA
Fluoride	18.7		5.94	1.19	mg/Kg	1	✱		9056A	Total/NA
Antimony	0.151	J	2.09	0.124	mg/Kg	10	✱		6020A	Total/NA
Arsenic	1.41	J	4.18	0.645	mg/Kg	10	✱		6020A	Total/NA
Barium	1040		4.18	0.363	mg/Kg	10	✱		6020A	Total/NA
Beryllium	1.14	J	2.09	0.193	mg/Kg	10	✱		6020A	Total/NA
Chromium	15.6		4.18	0.284	mg/Kg	10	✱		6020A	Total/NA
Cobalt	5.79		2.09	0.120	mg/Kg	10	✱		6020A	Total/NA
Lead	9.78		2.09	0.202	mg/Kg	10	✱		6020A	Total/NA
Iron	16700		209	24.5	mg/Kg	100	✱		6020A	Total/NA
Manganese	640		2.09	0.266	mg/Kg	10	✱		6020A	Total/NA
Nickel	11.6		2.09	0.153	mg/Kg	10	✱		6020A	Total/NA
Vanadium	17.0		2.09	0.209	mg/Kg	10	✱		6020A	Total/NA
Zinc	24.5		4.18	0.463	mg/Kg	10	✱		6020A	Total/NA
Uranium	0.858	J	1.05	0.0625	mg/Kg	10	✱		6020A	Total/NA
Mercury	0.00818	J	0.0202	0.00388	mg/Kg	1	✱		7471A	Total/NA
Cyanide, Total	0.0566	J	0.0703	0.0349	mg/Kg	1	✱		9012A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-4 (0-1)

Lab Sample ID: 860-19628-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	7.67	J	12.3	4.34	mg/Kg	1	☆	9056A	Total/NA	
Fluoride	3.45	J	6.13	1.23	mg/Kg	1	☆	9056A	Total/NA	
Antimony	0.155	J	2.15	0.128	mg/Kg	10	☆	6020A	Total/NA	
Arsenic	1.53	J	4.30	0.664	mg/Kg	10	☆	6020A	Total/NA	
Barium	321		4.30	0.373	mg/Kg	10	☆	6020A	Total/NA	
Beryllium	0.696	J	2.15	0.199	mg/Kg	10	☆	6020A	Total/NA	
Chromium	13.5		4.30	0.292	mg/Kg	10	☆	6020A	Total/NA	
Cobalt	5.05		2.15	0.123	mg/Kg	10	☆	6020A	Total/NA	
Lead	7.43		2.15	0.208	mg/Kg	10	☆	6020A	Total/NA	
Iron	13600		215	25.2	mg/Kg	100	☆	6020A	Total/NA	
Manganese	549		2.15	0.274	mg/Kg	10	☆	6020A	Total/NA	
Nickel	8.99		2.15	0.158	mg/Kg	10	☆	6020A	Total/NA	
Vanadium	20.4		2.15	0.215	mg/Kg	10	☆	6020A	Total/NA	
Zinc	20.0		4.30	0.476	mg/Kg	10	☆	6020A	Total/NA	
Uranium	0.521	J	1.08	0.0643	mg/Kg	10	☆	6020A	Total/NA	
Mercury	0.0112	J	0.0236	0.00454	mg/Kg	1	☆	7471A	Total/NA	
Cyanide, Total	0.101		0.0743	0.0369	mg/Kg	1	☆	9012A	Total/NA	

Client Sample ID: BI-4 (5-6)

Lab Sample ID: 860-19628-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	386		11.7	4.13	mg/Kg	1	☆	9056A	Total/NA	
Fluoride	27.1		5.84	1.17	mg/Kg	1	☆	9056A	Total/NA	
Arsenic	1.27	J	4.19	0.646	mg/Kg	10	☆	6020A	Total/NA	
Barium	279		4.19	0.363	mg/Kg	10	☆	6020A	Total/NA	
Beryllium	0.757	J	2.09	0.194	mg/Kg	10	☆	6020A	Total/NA	
Chromium	13.2		4.19	0.284	mg/Kg	10	☆	6020A	Total/NA	
Cobalt	5.55		2.09	0.120	mg/Kg	10	☆	6020A	Total/NA	
Lead	8.91		2.09	0.203	mg/Kg	10	☆	6020A	Total/NA	
Iron	15300		209	24.5	mg/Kg	100	☆	6020A	Total/NA	
Manganese	532		2.09	0.266	mg/Kg	10	☆	6020A	Total/NA	
Nickel	9.69		2.09	0.154	mg/Kg	10	☆	6020A	Total/NA	
Vanadium	17.3		2.09	0.209	mg/Kg	10	☆	6020A	Total/NA	
Zinc	22.2		4.19	0.463	mg/Kg	10	☆	6020A	Total/NA	
Uranium	0.723	J	1.05	0.0626	mg/Kg	10	☆	6020A	Total/NA	
Mercury	0.00701	J	0.0209	0.00402	mg/Kg	1	☆	7471A	Total/NA	
Cyanide, Total	0.0540	J	0.0716	0.0355	mg/Kg	1	☆	9012A	Total/NA	

Client Sample ID: BI-5 (0-1)

Lab Sample ID: 860-19628-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	5.30	J	11.7	4.15	mg/Kg	1	☆	9056A	Total/NA	
Fluoride	5.31	J	5.87	1.17	mg/Kg	1	☆	9056A	Total/NA	
Antimony	0.188	J	2.12	0.126	mg/Kg	10	☆	6020A	Total/NA	
Arsenic	2.12	J	4.24	0.654	mg/Kg	10	☆	6020A	Total/NA	
Barium	367		4.24	0.368	mg/Kg	10	☆	6020A	Total/NA	
Beryllium	0.728	J	2.12	0.196	mg/Kg	10	☆	6020A	Total/NA	
Chromium	14.8		4.24	0.288	mg/Kg	10	☆	6020A	Total/NA	
Cobalt	4.80		2.12	0.121	mg/Kg	10	☆	6020A	Total/NA	
Lead	9.31		2.12	0.205	mg/Kg	10	☆	6020A	Total/NA	
Iron	16600		212	24.9	mg/Kg	100	☆	6020A	Total/NA	
Manganese	456		2.12	0.270	mg/Kg	10	☆	6020A	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-5 (0-1) (Continued)

Lab Sample ID: 860-19628-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	8.53		2.12	0.156	mg/Kg	10	✱	6020A	Total/NA
Vanadium	25.9		2.12	0.212	mg/Kg	10	✱	6020A	Total/NA
Zinc	19.4		4.24	0.469	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.716	J	1.06	0.0634	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0150	J	0.0233	0.00448	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.123	F1	0.0682	0.0338	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-5 (5-6)

Lab Sample ID: 860-19628-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	347		11.7	4.13	mg/Kg	1	✱	9056A	Total/NA
Fluoride	21.4		5.84	1.17	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.301	J	2.08	0.124	mg/Kg	10	✱	6020A	Total/NA
Arsenic	1.86	J	4.15	0.640	mg/Kg	10	✱	6020A	Total/NA
Barium	635		4.15	0.360	mg/Kg	10	✱	6020A	Total/NA
Beryllium	2.06	J	2.08	0.192	mg/Kg	10	✱	6020A	Total/NA
Chromium	30.8		4.15	0.282	mg/Kg	10	✱	6020A	Total/NA
Cobalt	10.1		2.08	0.119	mg/Kg	10	✱	6020A	Total/NA
Lead	17.2		2.08	0.201	mg/Kg	10	✱	6020A	Total/NA
Iron	28300		208	24.3	mg/Kg	100	✱	6020A	Total/NA
Manganese	397		2.08	0.264	mg/Kg	10	✱	6020A	Total/NA
Nickel	20.5		2.08	0.152	mg/Kg	10	✱	6020A	Total/NA
Selenium	0.606	J	2.08	0.515	mg/Kg	10	✱	6020A	Total/NA
Vanadium	37.5		2.08	0.208	mg/Kg	10	✱	6020A	Total/NA
Zinc	52.2		4.15	0.459	mg/Kg	10	✱	6020A	Total/NA
Uranium	1.39		1.04	0.0621	mg/Kg	10	✱	6020A	Total/NA
Cyanide, Total	0.0527	J	0.0703	0.0349	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-6 (0-1)

Lab Sample ID: 860-19628-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	44.0		12.8	4.54	mg/Kg	1	✱	9056A	Total/NA
Fluoride	5.76	J	6.42	1.28	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.78	J	4.68	0.721	mg/Kg	10	✱	6020A	Total/NA
Barium	210		4.68	0.406	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.742	J	2.34	0.216	mg/Kg	10	✱	6020A	Total/NA
Chromium	11.7		4.68	0.317	mg/Kg	10	✱	6020A	Total/NA
Cobalt	4.39		2.34	0.134	mg/Kg	10	✱	6020A	Total/NA
Lead	6.79		2.34	0.226	mg/Kg	10	✱	6020A	Total/NA
Iron	9950		234	27.4	mg/Kg	100	✱	6020A	Total/NA
Manganese	889		2.34	0.298	mg/Kg	10	✱	6020A	Total/NA
Nickel	7.67		2.34	0.172	mg/Kg	10	✱	6020A	Total/NA
Vanadium	19.0		2.34	0.234	mg/Kg	10	✱	6020A	Total/NA
Zinc	29.1		4.68	0.517	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.475	J	1.17	0.0699	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00874	J	0.0243	0.00467	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.101		0.0758	0.0376	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-6 (5-6)

Lab Sample ID: 860-19628-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	68.8		10.8	3.81	mg/Kg	1	✱	9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-6 (5-6) (Continued)

Lab Sample ID: 860-19628-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	3.81	J	5.39	1.08	mg/Kg	1	✱	9056A	Total/NA
Arsenic	0.980	J	3.81	0.587	mg/Kg	10	✱	6020A	Total/NA
Barium	120		3.81	0.330	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.499	J	1.90	0.176	mg/Kg	10	✱	6020A	Total/NA
Chromium	7.39		3.81	0.258	mg/Kg	10	✱	6020A	Total/NA
Cobalt	4.06		1.90	0.109	mg/Kg	10	✱	6020A	Total/NA
Lead	6.40		1.90	0.184	mg/Kg	10	✱	6020A	Total/NA
Iron	9000		19.0	2.23	mg/Kg	10	✱	6020A	Total/NA
Manganese	526		1.90	0.242	mg/Kg	10	✱	6020A	Total/NA
Nickel	6.35		1.90	0.140	mg/Kg	10	✱	6020A	Total/NA
Vanadium	12.1		1.90	0.190	mg/Kg	10	✱	6020A	Total/NA
Zinc	17.1		3.81	0.421	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.526	J	0.952	0.0569	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00698	J	0.0194	0.00373	mg/Kg	1	✱	7471A	Total/NA

Client Sample ID: BI-7 (0-1)

Lab Sample ID: 860-19628-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.38	J	11.9	4.22	mg/Kg	1	✱	9056A	Total/NA
Fluoride	1.77	J	5.96	1.19	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.36	J	4.55	0.702	mg/Kg	10	✱	6020A	Total/NA
Barium	247		4.55	0.395	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.559	J	2.28	0.211	mg/Kg	10	✱	6020A	Total/NA
Chromium	8.11		4.55	0.309	mg/Kg	10	✱	6020A	Total/NA
Cobalt	3.98		2.28	0.130	mg/Kg	10	✱	6020A	Total/NA
Lead	7.08		2.28	0.220	mg/Kg	10	✱	6020A	Total/NA
Iron	9710		22.8	2.67	mg/Kg	10	✱	6020A	Total/NA
Manganese	567		2.28	0.290	mg/Kg	10	✱	6020A	Total/NA
Nickel	6.57		2.28	0.167	mg/Kg	10	✱	6020A	Total/NA
Vanadium	13.7		2.28	0.228	mg/Kg	10	✱	6020A	Total/NA
Zinc	21.9		4.55	0.504	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.498	J	1.14	0.0680	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0241		0.0232	0.00446	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0793		0.0710	0.0352	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-7 (5-6)

Lab Sample ID: 860-19628-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	96.9		10.7	3.79	mg/Kg	1	✱	9056A	Total/NA
Fluoride	7.27		5.36	1.07	mg/Kg	1	✱	9056A	Total/NA
Arsenic	0.736	J	4.06	0.626	mg/Kg	10	✱	6020A	Total/NA
Barium	370		4.06	0.352	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.557	J	2.03	0.188	mg/Kg	10	✱	6020A	Total/NA
Chromium	9.14		4.06	0.275	mg/Kg	10	✱	6020A	Total/NA
Cobalt	2.85		2.03	0.116	mg/Kg	10	✱	6020A	Total/NA
Lead	10.6		2.03	0.196	mg/Kg	10	✱	6020A	Total/NA
Iron	11400		203	23.8	mg/Kg	100	✱	6020A	Total/NA
Manganese	211		2.03	0.258	mg/Kg	10	✱	6020A	Total/NA
Nickel	4.96		2.03	0.149	mg/Kg	10	✱	6020A	Total/NA
Vanadium	24.6		2.03	0.203	mg/Kg	10	✱	6020A	Total/NA
Zinc	14.6		4.06	0.449	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.354	J	1.01	0.0607	mg/Kg	10	✱	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-7 (5-6) (Continued)

Lab Sample ID: 860-19628-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.00591	J	0.0211	0.00405	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0325	J	0.0645	0.0320	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-8 (0-1)

Lab Sample ID: 860-19628-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	173		10.7	3.81	mg/Kg	1	✱	9056A	Total/NA
Fluoride	3.42	J	5.37	1.07	mg/Kg	1	✱	9056A	Total/NA
Barium	106		3.90	0.338	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.555	J	1.95	0.180	mg/Kg	10	✱	6020A	Total/NA
Chromium	7.21		3.90	0.264	mg/Kg	10	✱	6020A	Total/NA
Cobalt	3.48		1.95	0.112	mg/Kg	10	✱	6020A	Total/NA
Lead	5.36		1.95	0.189	mg/Kg	10	✱	6020A	Total/NA
Iron	8480		19.5	2.29	mg/Kg	10	✱	6020A	Total/NA
Manganese	110		1.95	0.248	mg/Kg	10	✱	6020A	Total/NA
Nickel	6.01		1.95	0.143	mg/Kg	10	✱	6020A	Total/NA
Vanadium	12.7		1.95	0.195	mg/Kg	10	✱	6020A	Total/NA
Zinc	16.8		3.90	0.432	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.531	J	0.975	0.0583	mg/Kg	10	✱	6020A	Total/NA

Client Sample ID: BI-8 (5-6)

Lab Sample ID: 860-19628-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17.8		12.3	4.34	mg/Kg	1	✱	9056A	Total/NA
Fluoride	7.52		6.13	1.23	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.40	J	4.43	0.683	mg/Kg	10	✱	6020A	Total/NA
Barium	503		4.43	0.384	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.07	J	2.21	0.205	mg/Kg	10	✱	6020A	Total/NA
Chromium	18.4		4.43	0.300	mg/Kg	10	✱	6020A	Total/NA
Cobalt	7.44		2.21	0.127	mg/Kg	10	✱	6020A	Total/NA
Lead	12.0		2.21	0.214	mg/Kg	10	✱	6020A	Total/NA
Iron	17700		221	26.0	mg/Kg	100	✱	6020A	Total/NA
Manganese	495		2.21	0.282	mg/Kg	10	✱	6020A	Total/NA
Nickel	13.8		2.21	0.163	mg/Kg	10	✱	6020A	Total/NA
Vanadium	31.2		2.21	0.221	mg/Kg	10	✱	6020A	Total/NA
Zinc	33.8		4.43	0.490	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.476	J	1.11	0.0662	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00872	J	0.0239	0.00459	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0701	J	0.0731	0.0362	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-9 (0-1)

Lab Sample ID: 860-19628-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.4	J	11.9	4.22	mg/Kg	1	✱	9056A	Total/NA
Fluoride	1.72	J	5.96	1.19	mg/Kg	1	✱	9056A	Total/NA
Arsenic	2.46	J	4.43	0.683	mg/Kg	10	✱	6020A	Total/NA
Barium	1270		4.43	0.384	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.876	J	2.22	0.205	mg/Kg	10	✱	6020A	Total/NA
Chromium	13.1		4.43	0.300	mg/Kg	10	✱	6020A	Total/NA
Cobalt	4.92		2.22	0.127	mg/Kg	10	✱	6020A	Total/NA
Lead	8.04		2.22	0.214	mg/Kg	10	✱	6020A	Total/NA
Iron	12500		222	26.0	mg/Kg	100	✱	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-9 (0-1) (Continued)

Lab Sample ID: 860-19628-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	631		2.22	0.282	mg/Kg	10	✱	6020A	Total/NA
Nickel	9.27		2.22	0.163	mg/Kg	10	✱	6020A	Total/NA
Vanadium	20.4		2.22	0.221	mg/Kg	10	✱	6020A	Total/NA
Zinc	21.8		4.43	0.490	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.546	J	1.11	0.0662	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0181	J	0.0222	0.00426	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0878	H	0.0718	0.0356	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-9 (5-6)

Lab Sample ID: 860-19628-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	183		11.6	4.09	mg/Kg	1	✱	9056A	Total/NA
Fluoride	7.38		5.78	1.16	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.18	J	4.07	0.627	mg/Kg	10	✱	6020A	Total/NA
Barium	92.0		4.07	0.353	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.12	J	2.03	0.188	mg/Kg	10	✱	6020A	Total/NA
Chromium	7.29		4.07	0.276	mg/Kg	10	✱	6020A	Total/NA
Cobalt	2.96		2.03	0.116	mg/Kg	10	✱	6020A	Total/NA
Lead	9.90		2.03	0.197	mg/Kg	10	✱	6020A	Total/NA
Iron	12000		203	23.8	mg/Kg	100	✱	6020A	Total/NA
Manganese	250		2.03	0.259	mg/Kg	10	✱	6020A	Total/NA
Nickel	6.79		2.03	0.149	mg/Kg	10	✱	6020A	Total/NA
Vanadium	10.5		2.03	0.203	mg/Kg	10	✱	6020A	Total/NA
Zinc	17.1		4.07	0.450	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.655	J	1.02	0.0608	mg/Kg	10	✱	6020A	Total/NA

Client Sample ID: BI-10 (0-1)

Lab Sample ID: 860-19628-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26.8		11.1	3.93	mg/Kg	1	✱	9056A	Total/NA
Fluoride	13.1		5.55	1.11	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.81	J	4.16	0.642	mg/Kg	10	✱	6020A	Total/NA
Barium	1060		4.16	0.361	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.582	J	2.08	0.193	mg/Kg	10	✱	6020A	Total/NA
Cadmium	0.190	J	2.08	0.121	mg/Kg	10	✱	6020A	Total/NA
Chromium	10.9		4.16	0.282	mg/Kg	10	✱	6020A	Total/NA
Cobalt	4.43		2.08	0.119	mg/Kg	10	✱	6020A	Total/NA
Lead	7.37		2.08	0.201	mg/Kg	10	✱	6020A	Total/NA
Iron	10000		20.8	2.44	mg/Kg	10	✱	6020A	Total/NA
Manganese	1260		20.8	2.65	mg/Kg	100	✱	6020A	Total/NA
Nickel	7.31		2.08	0.153	mg/Kg	10	✱	6020A	Total/NA
Vanadium	20.1		2.08	0.208	mg/Kg	10	✱	6020A	Total/NA
Zinc	18.2		4.16	0.460	mg/Kg	10	✱	6020A	Total/NA
Uranium	1.23		1.04	0.0622	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0161	J	0.0208	0.00400	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0458	J H	0.0662	0.0328	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-10 (5-6)

Lab Sample ID: 860-19628-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	109		11.1	3.92	mg/Kg	1	✱	9056A	Total/NA
Fluoride	12.6		5.54	1.11	mg/Kg	1	✱	9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-10 (5-6) (Continued)

Lab Sample ID: 860-19628-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	3.45	J	4.04	0.623	mg/Kg	10	✱		6020A	Total/NA
Barium	365		4.04	0.350	mg/Kg	10	✱		6020A	Total/NA
Beryllium	0.823	J	2.02	0.187	mg/Kg	10	✱		6020A	Total/NA
Cadmium	0.187	J	2.02	0.117	mg/Kg	10	✱		6020A	Total/NA
Chromium	12.1		4.04	0.274	mg/Kg	10	✱		6020A	Total/NA
Cobalt	7.30		2.02	0.116	mg/Kg	10	✱		6020A	Total/NA
Lead	10.8		2.02	0.196	mg/Kg	10	✱		6020A	Total/NA
Iron	10800		202	23.7	mg/Kg	100	✱		6020A	Total/NA
Manganese	1180		20.2	2.57	mg/Kg	100	✱		6020A	Total/NA
Nickel	11.2		2.02	0.148	mg/Kg	10	✱		6020A	Total/NA
Vanadium	15.0		2.02	0.202	mg/Kg	10	✱		6020A	Total/NA
Zinc	24.2		4.04	0.447	mg/Kg	10	✱		6020A	Total/NA
Uranium	1.27		1.01	0.0604	mg/Kg	10	✱		6020A	Total/NA
Mercury	0.0150	J	0.0188	0.00361	mg/Kg	1	✱		7471A	Total/NA
Cyanide, Total	0.0362	J H	0.0654	0.0325	mg/Kg	1	✱		9012A	Total/NA

Client Sample ID: BI-11 (0-1)

Lab Sample ID: 860-19628-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	12.9		12.7	4.50	mg/Kg	1	✱		9056A	Total/NA
Fluoride	5.03	J	6.36	1.27	mg/Kg	1	✱		9056A	Total/NA
Arsenic	1.35	J	4.64	0.716	mg/Kg	10	✱		6020A	Total/NA
Barium	233		4.64	0.403	mg/Kg	10	✱		6020A	Total/NA
Beryllium	1.24	J	2.32	0.215	mg/Kg	10	✱		6020A	Total/NA
Chromium	18.9		4.64	0.315	mg/Kg	10	✱		6020A	Total/NA
Cobalt	7.08		2.32	0.133	mg/Kg	10	✱		6020A	Total/NA
Lead	12.6		2.32	0.225	mg/Kg	10	✱		6020A	Total/NA
Iron	15000		232	27.2	mg/Kg	100	✱		6020A	Total/NA
Manganese	417		2.32	0.296	mg/Kg	10	✱		6020A	Total/NA
Nickel	14.2		2.32	0.170	mg/Kg	10	✱		6020A	Total/NA
Vanadium	22.6		2.32	0.232	mg/Kg	10	✱		6020A	Total/NA
Zinc	29.2		4.64	0.514	mg/Kg	10	✱		6020A	Total/NA
Uranium	0.766	J	1.16	0.0694	mg/Kg	10	✱		6020A	Total/NA
Mercury	0.00795	J	0.0224	0.00431	mg/Kg	1	✱		7471A	Total/NA
Cyanide, Total	0.119	H	0.0766	0.0380	mg/Kg	1	✱		9012A	Total/NA

Client Sample ID: BI-11 (5-6)

Lab Sample ID: 860-19628-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	214		11.5	4.06	mg/Kg	1	✱		9056A	Total/NA
Fluoride	9.27		5.73	1.15	mg/Kg	1	✱		9056A	Total/NA
Antimony	0.135	J	2.07	0.123	mg/Kg	10	✱		6020A	Total/NA
Arsenic	1.86	J	4.14	0.639	mg/Kg	10	✱		6020A	Total/NA
Barium	387		4.14	0.359	mg/Kg	10	✱		6020A	Total/NA
Beryllium	1.28	J	2.07	0.192	mg/Kg	10	✱		6020A	Total/NA
Chromium	20.1		4.14	0.281	mg/Kg	10	✱		6020A	Total/NA
Cobalt	7.46		2.07	0.119	mg/Kg	10	✱		6020A	Total/NA
Lead	12.0		2.07	0.201	mg/Kg	10	✱		6020A	Total/NA
Iron	18300		207	24.3	mg/Kg	100	✱		6020A	Total/NA
Manganese	407		2.07	0.264	mg/Kg	10	✱		6020A	Total/NA
Nickel	15.8		2.07	0.152	mg/Kg	10	✱		6020A	Total/NA
Vanadium	25.9		2.07	0.207	mg/Kg	10	✱		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-11 (5-6) (Continued)

Lab Sample ID: 860-19628-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	27.7		4.14	0.458	mg/Kg	10	✱	6020A	Total/NA
Uranium	1.55		1.04	0.0619	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00602	J	0.0219	0.00421	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0549	J	0.0696	0.0345	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: DUP-1-19-22

Lab Sample ID: 860-19628-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	42.5		12.2	4.30	mg/Kg	1	✱	9056A	Total/NA
Fluoride	5.03	J	6.08	1.22	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.54	J	4.17	0.644	mg/Kg	10	✱	6020A	Total/NA
Barium	167		4.17	0.362	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.571	J	2.09	0.193	mg/Kg	10	✱	6020A	Total/NA
Chromium	11.6		4.17	0.283	mg/Kg	10	✱	6020A	Total/NA
Cobalt	4.03		2.09	0.120	mg/Kg	10	✱	6020A	Total/NA
Lead	6.14		2.09	0.202	mg/Kg	10	✱	6020A	Total/NA
Iron	9010		209	24.5	mg/Kg	100	✱	6020A	Total/NA
Manganese	624		2.09	0.266	mg/Kg	10	✱	6020A	Total/NA
Nickel	6.90		2.09	0.153	mg/Kg	10	✱	6020A	Total/NA
Vanadium	16.8		2.09	0.209	mg/Kg	10	✱	6020A	Total/NA
Zinc	21.4		4.17	0.462	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.423	J	1.04	0.0624	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0230		0.0228	0.00439	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.113		0.0726	0.0360	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: EB-1-19-22

Lab Sample ID: 860-19628-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.000315	J B	0.00200	0.000199	mg/L	1		6020A	Total/NA
Nickel	0.000945	J	0.00200	0.000292	mg/L	1		6020A	Total/NA
Zinc	0.000826	J B	0.00400	0.000802	mg/L	1		6020A	Total/NA
Cyanide, Total	3.09	J H	5.00	1.98	ug/L	1		9012A	Total/NA

Client Sample ID: EB-1-20-22

Lab Sample ID: 860-19628-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.000437	J B	0.00200	0.000199	mg/L	1		6020A	Total/NA
Nickel	0.000942	J	0.00200	0.000292	mg/L	1		6020A	Total/NA
Zinc	0.000824	J B	0.00400	0.000802	mg/L	1		6020A	Total/NA

Client Sample ID: BI-14 (0-1)

Lab Sample ID: 860-19628-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10.2	J	12.7	4.48	mg/Kg	1	✱	9056A	Total/NA
Fluoride	3.40	J	6.33	1.27	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.24	J	4.93	0.761	mg/Kg	10	✱	6020A	Total/NA
Barium	211		4.93	0.428	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.01	J	2.47	0.228	mg/Kg	10	✱	6020A	Total/NA
Chromium	16.9		4.93	0.334	mg/Kg	10	✱	6020A	Total/NA
Cobalt	6.01		2.47	0.141	mg/Kg	10	✱	6020A	Total/NA
Lead	9.94		2.47	0.239	mg/Kg	10	✱	6020A	Total/NA
Iron	12500		247	28.9	mg/Kg	100	✱	6020A	Total/NA
Manganese	374		2.47	0.314	mg/Kg	10	✱	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-14 (0-1) (Continued)

Lab Sample ID: 860-19628-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	13.1		2.47	0.181	mg/Kg	10	✱	6020A	Total/NA
Vanadium	20.3		2.47	0.247	mg/Kg	10	✱	6020A	Total/NA
Zinc	21.8		4.93	0.546	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.561	J	1.23	0.0737	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0169	J	0.0247	0.00474	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0771		0.0755	0.0374	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-14 (5-6)

Lab Sample ID: 860-19628-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	158		11.7	4.15	mg/Kg	1	✱	9056A	Total/NA
Fluoride	10.1		5.86	1.17	mg/Kg	1	✱	9056A	Total/NA
Arsenic	0.853	J	4.12	0.636	mg/Kg	10	✱	6020A	Total/NA
Barium	155		4.12	0.358	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.771	J	2.06	0.191	mg/Kg	10	✱	6020A	Total/NA
Chromium	8.75		4.12	0.280	mg/Kg	10	✱	6020A	Total/NA
Cobalt	3.83		2.06	0.118	mg/Kg	10	✱	6020A	Total/NA
Lead	7.90		2.06	0.200	mg/Kg	10	✱	6020A	Total/NA
Iron	8910		206	24.2	mg/Kg	100	✱	6020A	Total/NA
Manganese	336		2.06	0.262	mg/Kg	10	✱	6020A	Total/NA
Nickel	7.88		2.06	0.151	mg/Kg	10	✱	6020A	Total/NA
Vanadium	12.5		2.06	0.206	mg/Kg	10	✱	6020A	Total/NA
Zinc	13.6		4.12	0.456	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.639	J	1.03	0.0616	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00708	J	0.0218	0.00419	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0540	J	0.0693	0.0344	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-16 (0-1)

Lab Sample ID: 860-19628-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15.7		13.1	4.63	mg/Kg	1	✱	9056A	Total/NA
Fluoride	9.54		6.54	1.31	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.48	J	4.94	0.762	mg/Kg	10	✱	6020A	Total/NA
Barium	300		4.94	0.429	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.33	J	2.47	0.229	mg/Kg	10	✱	6020A	Total/NA
Chromium	19.2		4.94	0.335	mg/Kg	10	✱	6020A	Total/NA
Cobalt	7.61		2.47	0.142	mg/Kg	10	✱	6020A	Total/NA
Lead	13.6		2.47	0.239	mg/Kg	10	✱	6020A	Total/NA
Iron	15500		247	29.0	mg/Kg	100	✱	6020A	Total/NA
Manganese	449		2.47	0.315	mg/Kg	10	✱	6020A	Total/NA
Nickel	15.0		2.47	0.181	mg/Kg	10	✱	6020A	Total/NA
Vanadium	22.7		2.47	0.247	mg/Kg	10	✱	6020A	Total/NA
Zinc	24.7		4.94	0.547	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.790	J	1.24	0.0739	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00913	J	0.0225	0.00433	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0700	J	0.0771	0.0383	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-16 (5-6)

Lab Sample ID: 860-19628-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	210		11.2	3.97	mg/Kg	1	✱	9056A	Total/NA
Fluoride	4.61	J	5.61	1.12	mg/Kg	1	✱	9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-16 (5-6) (Continued)

Lab Sample ID: 860-19628-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.26	J	3.91	0.603	mg/Kg	10	✱	6020A	Total/NA
Barium	198		3.91	0.339	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.773	J	1.96	0.181	mg/Kg	10	✱	6020A	Total/NA
Chromium	10.9		3.91	0.265	mg/Kg	10	✱	6020A	Total/NA
Cobalt	4.49		1.96	0.112	mg/Kg	10	✱	6020A	Total/NA
Lead	9.61		1.96	0.189	mg/Kg	10	✱	6020A	Total/NA
Iron	10200		196	22.9	mg/Kg	100	✱	6020A	Total/NA
Manganese	347		1.96	0.249	mg/Kg	10	✱	6020A	Total/NA
Nickel	8.72		1.96	0.144	mg/Kg	10	✱	6020A	Total/NA
Vanadium	15.9		1.96	0.196	mg/Kg	10	✱	6020A	Total/NA
Zinc	17.0		3.91	0.433	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.762	J	0.978	0.0585	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00825	J	0.0223	0.00429	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0655	J	0.0669	0.0332	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-15 (0-1)

Lab Sample ID: 860-19628-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25.4		13.0	4.60	mg/Kg	1	✱	9056A	Total/NA
Fluoride	11.5		6.50	1.30	mg/Kg	1	✱	9056A	Total/NA
Arsenic	1.41	J	4.84	0.746	mg/Kg	10	✱	6020A	Total/NA
Barium	198		4.84	0.419	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.06	J	2.42	0.224	mg/Kg	10	✱	6020A	Total/NA
Chromium	18.4		4.84	0.328	mg/Kg	10	✱	6020A	Total/NA
Cobalt	6.66		2.42	0.138	mg/Kg	10	✱	6020A	Total/NA
Lead	10.6		2.42	0.234	mg/Kg	10	✱	6020A	Total/NA
Iron	15500		242	28.3	mg/Kg	100	✱	6020A	Total/NA
Manganese	359		2.42	0.308	mg/Kg	10	✱	6020A	Total/NA
Nickel	14.2		2.42	0.177	mg/Kg	10	✱	6020A	Total/NA
Vanadium	22.5		2.42	0.242	mg/Kg	10	✱	6020A	Total/NA
Zinc	24.3		4.84	0.535	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.626	J	1.21	0.0723	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0127	J	0.0251	0.00483	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0736	J	0.0783	0.0389	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-15 (5-6)

Lab Sample ID: 860-19628-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	113		11.2	3.97	mg/Kg	1	✱	9056A	Total/NA
Fluoride	4.80	J	5.61	1.12	mg/Kg	1	✱	9056A	Total/NA
Antimony	2.90		2.07	0.123	mg/Kg	10	✱	6020A	Total/NA
Arsenic	2.06	J	4.14	0.639	mg/Kg	10	✱	6020A	Total/NA
Barium	339	B	4.14	0.359	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.43	J	2.07	0.192	mg/Kg	10	✱	6020A	Total/NA
Chromium	25.3	F1	4.14	0.281	mg/Kg	10	✱	6020A	Total/NA
Cobalt	8.57		2.07	0.119	mg/Kg	10	✱	6020A	Total/NA
Lead	12.5		2.07	0.200	mg/Kg	10	✱	6020A	Total/NA
Iron	24100		207	24.3	mg/Kg	100	✱	6020A	Total/NA
Manganese	493	B	2.07	0.264	mg/Kg	10	✱	6020A	Total/NA
Nickel	18.7	F1	2.07	0.152	mg/Kg	10	✱	6020A	Total/NA
Selenium	0.605	J	2.07	0.514	mg/Kg	10	✱	6020A	Total/NA
Vanadium	34.9	F1	2.07	0.207	mg/Kg	10	✱	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-15 (5-6) (Continued)

Lab Sample ID: 860-19628-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	42.3	B	4.14	0.458	mg/Kg	10	✱	6020A	Total/NA
Uranium	1.08		1.04	0.0619	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00634	J	0.0215	0.00413	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0541	J	0.0683	0.0339	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-13 (0-1)

Lab Sample ID: 860-19628-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18.8		12.7	4.49	mg/Kg	1	✱	9056A	Total/NA
Fluoride	8.84		6.34	1.27	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.357	J	2.42	0.144	mg/Kg	10	✱	6020A	Total/NA
Arsenic	1.54	J	4.84	0.747	mg/Kg	10	✱	6020A	Total/NA
Barium	284	B	4.84	0.420	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.32	J	2.42	0.224	mg/Kg	10	✱	6020A	Total/NA
Chromium	16.9		4.84	0.328	mg/Kg	10	✱	6020A	Total/NA
Cobalt	6.85		2.42	0.139	mg/Kg	10	✱	6020A	Total/NA
Lead	13.5		2.42	0.235	mg/Kg	10	✱	6020A	Total/NA
Iron	18100		242	28.4	mg/Kg	100	✱	6020A	Total/NA
Manganese	412	B	2.42	0.308	mg/Kg	10	✱	6020A	Total/NA
Nickel	13.8		2.42	0.178	mg/Kg	10	✱	6020A	Total/NA
Vanadium	20.3		2.42	0.242	mg/Kg	10	✱	6020A	Total/NA
Zinc	28.0	B	4.84	0.536	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.903	J	1.21	0.0724	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0103	J	0.0238	0.00457	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0748	J	0.0770	0.0382	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-13 (5-6)

Lab Sample ID: 860-19628-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	255		11.4	4.04	mg/Kg	1	✱	9056A	Total/NA
Fluoride	7.56		5.70	1.14	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.293	J	2.23	0.133	mg/Kg	10	✱	6020A	Total/NA
Arsenic	1.55	J	4.46	0.687	mg/Kg	10	✱	6020A	Total/NA
Barium	287	B	4.46	0.386	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.30	J	2.23	0.206	mg/Kg	10	✱	6020A	Total/NA
Chromium	13.8		4.46	0.302	mg/Kg	10	✱	6020A	Total/NA
Cobalt	6.25		2.23	0.128	mg/Kg	10	✱	6020A	Total/NA
Lead	13.0		2.23	0.216	mg/Kg	10	✱	6020A	Total/NA
Iron	16600		223	26.1	mg/Kg	100	✱	6020A	Total/NA
Manganese	396	B	2.23	0.284	mg/Kg	10	✱	6020A	Total/NA
Nickel	12.9		2.23	0.164	mg/Kg	10	✱	6020A	Total/NA
Selenium	0.671	J	2.23	0.553	mg/Kg	10	✱	6020A	Total/NA
Vanadium	17.9		2.23	0.223	mg/Kg	10	✱	6020A	Total/NA
Zinc	25.7	B	4.46	0.493	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.965	J	1.11	0.0666	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00602	J	0.0223	0.00428	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0599	J	0.0695	0.0345	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-12 (0-1)

Lab Sample ID: 860-19628-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10.2	J	13.2	4.69	mg/Kg	1	✱	9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-12 (0-1) (Continued)

Lab Sample ID: 860-19628-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Fluoride	6.09	J	6.62	1.32	mg/Kg	1	☼		9056A	Total/NA
Antimony	0.268	J	2.53	0.151	mg/Kg	10	☼		6020A	Total/NA
Arsenic	1.45	J	5.07	0.781	mg/Kg	10	☼		6020A	Total/NA
Barium	213	B	5.07	0.439	mg/Kg	10	☼		6020A	Total/NA
Beryllium	1.13	J	2.53	0.234	mg/Kg	10	☼		6020A	Total/NA
Chromium	15.0		5.07	0.343	mg/Kg	10	☼		6020A	Total/NA
Cobalt	6.53		2.53	0.145	mg/Kg	10	☼		6020A	Total/NA
Lead	12.5		2.53	0.245	mg/Kg	10	☼		6020A	Total/NA
Iron	15600		253	29.7	mg/Kg	100	☼		6020A	Total/NA
Manganese	404	B	2.53	0.322	mg/Kg	10	☼		6020A	Total/NA
Nickel	13.1		2.53	0.186	mg/Kg	10	☼		6020A	Total/NA
Vanadium	19.5		2.53	0.253	mg/Kg	10	☼		6020A	Total/NA
Zinc	26.5	B	5.07	0.560	mg/Kg	10	☼		6020A	Total/NA
Uranium	0.778	J	1.27	0.0757	mg/Kg	10	☼		6020A	Total/NA
Mercury	0.00947	J	0.0263	0.00506	mg/Kg	1	☼		7471A	Total/NA
Cyanide, Total	0.0857		0.0805	0.0399	mg/Kg	1	☼		9012A	Total/NA

Client Sample ID: BI-12 (5-6)

Lab Sample ID: 860-19628-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	107		11.1	3.93	mg/Kg	1	☼		9056A	Total/NA
Fluoride	1.39	J	5.56	1.11	mg/Kg	1	☼		9056A	Total/NA
Antimony	0.242	J	2.22	0.132	mg/Kg	10	☼		6020A	Total/NA
Arsenic	1.66	J	4.44	0.684	mg/Kg	10	☼		6020A	Total/NA
Barium	250	B	4.44	0.385	mg/Kg	10	☼		6020A	Total/NA
Beryllium	1.04	J	2.22	0.205	mg/Kg	10	☼		6020A	Total/NA
Chromium	17.9		4.44	0.301	mg/Kg	10	☼		6020A	Total/NA
Cobalt	6.68		2.22	0.127	mg/Kg	10	☼		6020A	Total/NA
Lead	10.9		2.22	0.215	mg/Kg	10	☼		6020A	Total/NA
Iron	17700		222	26.0	mg/Kg	100	☼		6020A	Total/NA
Manganese	410	B	2.22	0.282	mg/Kg	10	☼		6020A	Total/NA
Nickel	14.5		2.22	0.163	mg/Kg	10	☼		6020A	Total/NA
Vanadium	23.7		2.22	0.222	mg/Kg	10	☼		6020A	Total/NA
Zinc	29.9	B	4.44	0.491	mg/Kg	10	☼		6020A	Total/NA
Uranium	0.733	J	1.11	0.0663	mg/Kg	10	☼		6020A	Total/NA
Mercury	0.00679	J	0.0226	0.00435	mg/Kg	1	☼		7471A	Total/NA
Cyanide, Total	0.0472	J	0.0679	0.0337	mg/Kg	1	☼		9012A	Total/NA

Client Sample ID: BI-17 (0-1)

Lab Sample ID: 860-19628-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	16.7		13.3	4.72	mg/Kg	1	☼		9056A	Total/NA
Fluoride	1.65	J	6.67	1.33	mg/Kg	1	☼		9056A	Total/NA
Antimony	0.300	J	2.34	0.139	mg/Kg	10	☼		6020A	Total/NA
Arsenic	1.75	J	4.68	0.722	mg/Kg	10	☼		6020A	Total/NA
Barium	288	B	4.68	0.406	mg/Kg	10	☼		6020A	Total/NA
Beryllium	0.981	J	2.34	0.217	mg/Kg	10	☼		6020A	Total/NA
Cadmium	0.142	J	2.34	0.136	mg/Kg	10	☼		6020A	Total/NA
Chromium	13.5		4.68	0.317	mg/Kg	10	☼		6020A	Total/NA
Cobalt	5.58		2.34	0.134	mg/Kg	10	☼		6020A	Total/NA
Lead	13.4		2.34	0.227	mg/Kg	10	☼		6020A	Total/NA
Iron	14100		234	27.4	mg/Kg	100	☼		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-17 (0-1) (Continued)

Lab Sample ID: 860-19628-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	704	B	2.34	0.298	mg/Kg	10	✱	6020A	Total/NA
Nickel	10.5		2.34	0.172	mg/Kg	10	✱	6020A	Total/NA
Vanadium	17.1		2.34	0.234	mg/Kg	10	✱	6020A	Total/NA
Zinc	45.7	B	4.68	0.518	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.435	J	1.17	0.0700	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0201	J	0.0230	0.00442	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.201		0.0786	0.0390	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-17 (5-6)

Lab Sample ID: 860-19628-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	178		11.0	3.89	mg/Kg	1	✱	9056A	Total/NA
Fluoride	2.50	J	5.49	1.10	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.156	J	2.21	0.131	mg/Kg	10	✱	6020A	Total/NA
Arsenic	1.31	J	4.41	0.680	mg/Kg	10	✱	6020A	Total/NA
Barium	328	B	4.41	0.383	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.709	J	2.21	0.204	mg/Kg	10	✱	6020A	Total/NA
Chromium	8.56		4.41	0.299	mg/Kg	10	✱	6020A	Total/NA
Cobalt	4.25		2.21	0.126	mg/Kg	10	✱	6020A	Total/NA
Lead	7.59		2.21	0.214	mg/Kg	10	✱	6020A	Total/NA
Iron	10200		22.1	2.59	mg/Kg	10	✱	6020A	Total/NA
Manganese	584	B	2.21	0.281	mg/Kg	10	✱	6020A	Total/NA
Nickel	7.01		2.21	0.162	mg/Kg	10	✱	6020A	Total/NA
Vanadium	16.2		2.21	0.221	mg/Kg	10	✱	6020A	Total/NA
Zinc	22.5	B	4.41	0.488	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.370	J	1.10	0.0659	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00753	J	0.0212	0.00408	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0650	J	0.0662	0.0328	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-18 (0-1)

Lab Sample ID: 860-19628-40

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13.8	J	14.2	5.02	mg/Kg	1	✱	9056A	Total/NA
Fluoride	2.18	J	7.09	1.42	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.330	J	2.77	0.165	mg/Kg	10	✱	6020A	Total/NA
Arsenic	2.12	J	5.53	0.853	mg/Kg	10	✱	6020A	Total/NA
Barium	286	B	5.53	0.480	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.05	J	2.77	0.256	mg/Kg	10	✱	6020A	Total/NA
Chromium	15.0		5.53	0.375	mg/Kg	10	✱	6020A	Total/NA
Cobalt	5.95		2.77	0.158	mg/Kg	10	✱	6020A	Total/NA
Lead	11.4		2.77	0.268	mg/Kg	10	✱	6020A	Total/NA
Iron	15300		277	32.4	mg/Kg	100	✱	6020A	Total/NA
Manganese	693	B	2.77	0.352	mg/Kg	10	✱	6020A	Total/NA
Nickel	10.9		2.77	0.203	mg/Kg	10	✱	6020A	Total/NA
Vanadium	21.2		2.77	0.277	mg/Kg	10	✱	6020A	Total/NA
Zinc	39.5	B	5.53	0.612	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.419	J	1.38	0.0827	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0168	J	0.0282	0.00542	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.143		0.0846	0.0420	mg/Kg	1	✱	9012A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-18 (5-6)

Lab Sample ID: 860-19628-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	213		11.5	4.08	mg/Kg	1		✱	9056A	Total/NA
Fluoride	1.60	J	5.76	1.15	mg/Kg	1		✱	9056A	Total/NA
Antimony	0.215	J	2.29	0.136	mg/Kg	10		✱	6020A	Total/NA
Arsenic	1.54	J	4.57	0.705	mg/Kg	10		✱	6020A	Total/NA
Barium	222	B	4.57	0.396	mg/Kg	10		✱	6020A	Total/NA
Beryllium	0.930	J	2.29	0.211	mg/Kg	10		✱	6020A	Total/NA
Chromium	7.63		4.57	0.310	mg/Kg	10		✱	6020A	Total/NA
Cobalt	4.45		2.29	0.131	mg/Kg	10		✱	6020A	Total/NA
Lead	10.9		2.29	0.221	mg/Kg	10		✱	6020A	Total/NA
Iron	11100		22.9	2.68	mg/Kg	10		✱	6020A	Total/NA
Manganese	784	B	2.29	0.291	mg/Kg	10		✱	6020A	Total/NA
Nickel	7.48		2.29	0.168	mg/Kg	10		✱	6020A	Total/NA
Vanadium	12.7		2.29	0.228	mg/Kg	10		✱	6020A	Total/NA
Zinc	26.6	B	4.57	0.506	mg/Kg	10		✱	6020A	Total/NA
Uranium	0.373	J	1.14	0.0683	mg/Kg	10		✱	6020A	Total/NA
Mercury	0.00885	J	0.0216	0.00415	mg/Kg	1		✱	7471A	Total/NA
Cyanide, Total	0.106		0.0699	0.0347	mg/Kg	1		✱	9012A	Total/NA

Client Sample ID: BI-19 (0-1)

Lab Sample ID: 860-19628-42

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	10.1	J	12.5	4.43	mg/Kg	1		✱	9056A	Total/NA
Fluoride	1.77	J	6.26	1.25	mg/Kg	1		✱	9056A	Total/NA
Antimony	0.214	J	2.27	0.135	mg/Kg	10		✱	6020A	Total/NA
Arsenic	1.85	J	4.53	0.699	mg/Kg	10		✱	6020A	Total/NA
Barium	325	B	4.53	0.393	mg/Kg	10		✱	6020A	Total/NA
Beryllium	0.995	J	2.27	0.210	mg/Kg	10		✱	6020A	Total/NA
Chromium	13.9		4.53	0.307	mg/Kg	10		✱	6020A	Total/NA
Cobalt	5.49		2.27	0.130	mg/Kg	10		✱	6020A	Total/NA
Lead	10.9		2.27	0.219	mg/Kg	10		✱	6020A	Total/NA
Iron	14500		227	26.6	mg/Kg	100		✱	6020A	Total/NA
Manganese	665	B	2.27	0.289	mg/Kg	10		✱	6020A	Total/NA
Nickel	10.4		2.27	0.166	mg/Kg	10		✱	6020A	Total/NA
Vanadium	19.0		2.27	0.227	mg/Kg	10		✱	6020A	Total/NA
Zinc	33.7	B	4.53	0.502	mg/Kg	10		✱	6020A	Total/NA
Uranium	0.441	J	1.13	0.0678	mg/Kg	10		✱	6020A	Total/NA
Mercury	0.0127	J	0.0231	0.00444	mg/Kg	1		✱	7471A	Total/NA
Cyanide, Total	0.124		0.0748	0.0371	mg/Kg	1		✱	9012A	Total/NA

Client Sample ID: BI-19 (5-6)

Lab Sample ID: 860-19628-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloride	298		11.6	4.09	mg/Kg	1		✱	9056A	Total/NA
Fluoride	1.17	J	5.78	1.16	mg/Kg	1		✱	9056A	Total/NA
Antimony	0.225	J	2.19	0.130	mg/Kg	10		✱	6020A	Total/NA
Arsenic	1.68	J	4.38	0.676	mg/Kg	10		✱	6020A	Total/NA
Barium	400	B	4.38	0.380	mg/Kg	10		✱	6020A	Total/NA
Beryllium	0.979	J	2.19	0.203	mg/Kg	10		✱	6020A	Total/NA
Cadmium	0.137	J	2.19	0.127	mg/Kg	10		✱	6020A	Total/NA
Chromium	12.7		4.38	0.297	mg/Kg	10		✱	6020A	Total/NA
Cobalt	5.16		2.19	0.125	mg/Kg	10		✱	6020A	Total/NA
Lead	11.0		2.19	0.212	mg/Kg	10		✱	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-19 (5-6) (Continued)

Lab Sample ID: 860-19628-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	14000		219	25.7	mg/Kg	100	✱	6020A	Total/NA
Manganese	687	B	2.19	0.279	mg/Kg	10	✱	6020A	Total/NA
Nickel	10.3		2.19	0.161	mg/Kg	10	✱	6020A	Total/NA
Vanadium	16.3		2.19	0.219	mg/Kg	10	✱	6020A	Total/NA
Zinc	31.2	B	4.38	0.485	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.421	J	1.10	0.0655	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0101	J	0.0203	0.00391	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.115		0.0683	0.0339	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-20 (0-1)

Lab Sample ID: 860-19628-44

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	29.0		12.6	4.45	mg/Kg	1	✱	9056A	Total/NA
Fluoride	4.38	J	6.28	1.26	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.204	J	2.18	0.130	mg/Kg	10	✱	6020A	Total/NA
Arsenic	1.96	J	4.35	0.671	mg/Kg	10	✱	6020A	Total/NA
Barium	306	B	4.35	0.378	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.04	J	2.18	0.201	mg/Kg	10	✱	6020A	Total/NA
Chromium	14.2		4.35	0.295	mg/Kg	10	✱	6020A	Total/NA
Cobalt	5.75		2.18	0.125	mg/Kg	10	✱	6020A	Total/NA
Lead	11.0		2.18	0.211	mg/Kg	10	✱	6020A	Total/NA
Iron	15500		218	25.5	mg/Kg	100	✱	6020A	Total/NA
Manganese	732	B	2.18	0.277	mg/Kg	10	✱	6020A	Total/NA
Nickel	10.8		2.18	0.160	mg/Kg	10	✱	6020A	Total/NA
Selenium	0.544	J	2.18	0.540	mg/Kg	10	✱	6020A	Total/NA
Vanadium	19.5		2.18	0.218	mg/Kg	10	✱	6020A	Total/NA
Zinc	36.5	B	4.35	0.482	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.435	J	1.09	0.0651	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0144	J	0.0234	0.00450	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.133		0.0744	0.0369	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-20 (5-6)

Lab Sample ID: 860-19628-45

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	232		11.5	4.08	mg/Kg	1	✱	9056A	Total/NA
Fluoride	11.1		5.77	1.15	mg/Kg	1	✱	9056A	Total/NA
Arsenic	2.31	J	4.24	0.654	mg/Kg	10	✱	6020A	Total/NA
Barium	182	B	4.24	0.367	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.06	J	2.12	0.196	mg/Kg	10	✱	6020A	Total/NA
Chromium	12.2		4.24	0.287	mg/Kg	10	✱	6020A	Total/NA
Cobalt	4.73		2.12	0.121	mg/Kg	10	✱	6020A	Total/NA
Lead	21.0		2.12	0.205	mg/Kg	10	✱	6020A	Total/NA
Iron	8480		21.2	2.48	mg/Kg	10	✱	6020A	Total/NA
Manganese	711	B	2.12	0.270	mg/Kg	10	✱	6020A	Total/NA
Nickel	11.8		2.12	0.156	mg/Kg	10	✱	6020A	Total/NA
Vanadium	2840		21.2	2.12	mg/Kg	100	✱	6020A	Total/NA
Zinc	20.2	B	4.24	0.469	mg/Kg	10	✱	6020A	Total/NA
Uranium	2.88		1.06	0.0633	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00682	J	0.0220	0.00423	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.0380	J	0.0686	0.0341	mg/Kg	1	✱	9012A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-21 (0-1)

Lab Sample ID: 860-19628-46

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	749		13.2	4.68	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.275	J	2.45	0.146	mg/Kg	10	✱	6020A	Total/NA
Arsenic	2.34	J	4.91	0.757	mg/Kg	10	✱	6020A	Total/NA
Barium	422	B	4.91	0.426	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.20	J	2.45	0.227	mg/Kg	10	✱	6020A	Total/NA
Cadmium	0.167	J	2.45	0.142	mg/Kg	10	✱	6020A	Total/NA
Chromium	18.4		4.91	0.333	mg/Kg	10	✱	6020A	Total/NA
Cobalt	6.17		2.45	0.141	mg/Kg	10	✱	6020A	Total/NA
Lead	13.2		2.45	0.238	mg/Kg	10	✱	6020A	Total/NA
Iron	17900		245	28.8	mg/Kg	100	✱	6020A	Total/NA
Manganese	725	B	2.45	0.312	mg/Kg	10	✱	6020A	Total/NA
Nickel	12.8		2.45	0.180	mg/Kg	10	✱	6020A	Total/NA
Selenium	0.654	J	2.45	0.609	mg/Kg	10	✱	6020A	Total/NA
Vanadium	25.1		2.45	0.245	mg/Kg	10	✱	6020A	Total/NA
Zinc	42.7	B	4.91	0.543	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.499	J	1.23	0.0733	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.0145	J	0.0245	0.00472	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.202		0.0780	0.0387	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: BI-21 (5-6)

Lab Sample ID: 860-19628-47

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	109		12.8	4.51	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.153	J	2.49	0.148	mg/Kg	10	✱	6020A	Total/NA
Arsenic	1.33	J	4.97	0.767	mg/Kg	10	✱	6020A	Total/NA
Barium	309	B	4.97	0.431	mg/Kg	10	✱	6020A	Total/NA
Beryllium	0.882	J	2.49	0.230	mg/Kg	10	✱	6020A	Total/NA
Chromium	10.2		4.97	0.337	mg/Kg	10	✱	6020A	Total/NA
Cobalt	5.70		2.49	0.142	mg/Kg	10	✱	6020A	Total/NA
Lead	9.95		2.49	0.241	mg/Kg	10	✱	6020A	Total/NA
Iron	12100		24.9	2.91	mg/Kg	10	✱	6020A	Total/NA
Manganese	800	B	2.49	0.316	mg/Kg	10	✱	6020A	Total/NA
Nickel	8.92		2.49	0.182	mg/Kg	10	✱	6020A	Total/NA
Vanadium	13.7		2.49	0.248	mg/Kg	10	✱	6020A	Total/NA
Zinc	31.2	B	4.97	0.550	mg/Kg	10	✱	6020A	Total/NA
Uranium	0.446	J	1.24	0.0743	mg/Kg	10	✱	6020A	Total/NA
Mercury	0.00634	J	0.0235	0.00451	mg/Kg	1	✱	7471A	Total/NA
Cyanide, Total	0.133		0.0760	0.0377	mg/Kg	1	✱	9012A	Total/NA

Client Sample ID: DUP-1-20-22

Lab Sample ID: 860-19628-48

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16.5		13.4	4.76	mg/Kg	1	✱	9056A	Total/NA
Antimony	0.351	J	2.36	0.141	mg/Kg	10	✱	6020A	Total/NA
Arsenic	2.16	J	4.72	0.729	mg/Kg	10	✱	6020A	Total/NA
Barium	343	B	4.72	0.410	mg/Kg	10	✱	6020A	Total/NA
Beryllium	1.30	J	2.36	0.219	mg/Kg	10	✱	6020A	Total/NA
Cadmium	0.162	J	2.36	0.137	mg/Kg	10	✱	6020A	Total/NA
Chromium	20.7		4.72	0.320	mg/Kg	10	✱	6020A	Total/NA
Cobalt	7.46		2.36	0.135	mg/Kg	10	✱	6020A	Total/NA
Lead	15.5		2.36	0.229	mg/Kg	10	✱	6020A	Total/NA
Iron	20200		236	27.7	mg/Kg	100	✱	6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: DUP-1-20-22 (Continued) Lab Sample ID: 860-19628-48

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Manganese	899	B	2.36	0.301	mg/Kg	10	✱		6020A	Total/NA
Nickel	14.3		2.36	0.173	mg/Kg	10	✱		6020A	Total/NA
Selenium	0.658	J	2.36	0.586	mg/Kg	10	✱		6020A	Total/NA
Vanadium	27.3		2.36	0.236	mg/Kg	10	✱		6020A	Total/NA
Zinc	49.4	B	4.72	0.523	mg/Kg	10	✱		6020A	Total/NA
Uranium	0.534	J	1.18	0.0706	mg/Kg	10	✱		6020A	Total/NA
Mercury	0.0145	J	0.0254	0.00489	mg/Kg	1	✱		7471A	Total/NA
Cyanide, Total	0.179		0.0794	0.0394	mg/Kg	1	✱		9012A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: DUP-01-18-22

Lab Sample ID: 860-19628-1

Date Collected: 01/18/22 00:00

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 78.2

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28.6		12.9	4.57	mg/Kg	✱	01/26/22 10:18	01/26/22 19:22	1
Fluoride	16.3		6.46	1.29	mg/Kg	✱	01/26/22 10:18	01/26/22 19:22	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.214	J	2.28	0.136	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Arsenic	2.37	J	4.57	0.704	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Barium	739		4.57	0.396	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Beryllium	1.08	J	2.28	0.211	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Cadmium	<0.132	U	2.28	0.132	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Chromium	19.9		4.57	0.310	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Cobalt	6.27		2.28	0.131	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Lead	10.4		2.28	0.221	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Iron	18500		228	26.8	mg/Kg	✱	01/26/22 12:05	01/27/22 11:18	100
Manganese	388		2.28	0.291	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Nickel	12.0		2.28	0.168	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Selenium	<0.567	U	2.28	0.567	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Silver	<0.181	U	2.28	0.181	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Vanadium	36.2		2.28	0.228	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Zinc	26.9		4.57	0.505	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10
Uranium	0.726	J	1.14	0.0683	mg/Kg	✱	01/26/22 12:05	01/26/22 20:40	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00861	J	0.0246	0.00473	mg/Kg	✱	01/26/22 08:20	01/26/22 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.143	F1	0.0753	0.0374	mg/Kg	✱	02/01/22 14:46	02/01/22 17:32	1

Client Sample ID: EB-01-18-22

Lab Sample ID: 860-19628-2

Date Collected: 01/18/22 12:30

Matrix: Water

Date Received: 01/25/22 12:02

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.598	F1	0.500	0.200	mg/L			01/25/22 20:42	1
Fluoride	<0.100	U F1	0.500	0.100	mg/L			01/25/22 20:42	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000240	U	0.00200	0.000240	mg/L		01/26/22 08:30	01/26/22 18:23	1
Arsenic	<0.000246	U	0.00400	0.000246	mg/L		01/26/22 08:30	01/26/22 18:23	1
Barium	<0.000484	U	0.00400	0.000484	mg/L		01/26/22 08:30	01/26/22 18:23	1
Beryllium	<0.000131	U	0.00200	0.000131	mg/L		01/26/22 08:30	01/26/22 18:23	1
Cadmium	<0.000147	U	0.00200	0.000147	mg/L		01/26/22 08:30	01/26/22 18:23	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		01/26/22 08:30	01/26/22 18:23	1
Cobalt	<0.0000699	U	0.00200	0.0000699	mg/L		01/26/22 08:30	01/26/22 18:23	1
Iron	<0.0227	U	0.100	0.0227	mg/L		01/26/22 08:30	01/26/22 18:23	1
Lead	0.000189	J	0.00200	0.000152	mg/L		01/26/22 08:30	01/26/22 18:23	1
Manganese	0.000540	J B	0.00200	0.000199	mg/L		01/26/22 08:30	01/26/22 18:23	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: EB-01-18-22

Lab Sample ID: 860-19628-2

Date Collected: 01/18/22 12:30

Matrix: Water

Date Received: 01/25/22 12:02

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.000860	J	0.00200	0.000292	mg/L		01/26/22 08:30	01/26/22 18:23	1
Selenium	<0.000454	U	0.00200	0.000454	mg/L		01/26/22 08:30	01/26/22 18:23	1
Silver	<0.000251	U	0.00200	0.000251	mg/L		01/26/22 08:30	01/26/22 18:23	1
Uranium	<0.000211	U	0.00100	0.000211	mg/L		01/26/22 08:30	01/26/22 18:23	1
Vanadium	<0.000164	U	0.00200	0.000164	mg/L		01/26/22 08:30	01/26/22 18:23	1
Zinc	0.00256	J B	0.00400	0.000802	mg/L		01/26/22 08:30	01/26/22 18:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000263	U	0.000200	0.0000263	mg/L		01/26/22 09:25	01/26/22 15:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<1.98	U F1	5.00	1.98	ug/L		02/01/22 14:46	02/01/22 17:22	1

Client Sample ID: BI-1 (0-1)

Lab Sample ID: 860-19628-3

Date Collected: 01/18/22 12:30

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 81.5

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.35	J	12.3	4.37	mg/Kg	✱	01/26/22 10:18	01/26/22 19:34	1
Fluoride	3.38	J	6.17	1.23	mg/Kg	✱	01/26/22 10:18	01/26/22 19:34	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.164	J	2.27	0.135	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Arsenic	2.72	J	4.54	0.701	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Barium	502		4.54	0.394	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Beryllium	0.632	J	2.27	0.210	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Cadmium	<0.132	U	2.27	0.132	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Chromium	12.7		4.54	0.308	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Cobalt	4.60		2.27	0.130	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Lead	8.83		2.27	0.220	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Iron	12600		227	26.6	mg/Kg	✱	01/26/22 12:05	01/27/22 11:21	100
Manganese	780		2.27	0.289	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Nickel	7.98		2.27	0.167	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Selenium	0.662	J	2.27	0.564	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Silver	<0.181	U	2.27	0.181	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Vanadium	23.1		2.27	0.227	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Zinc	19.6		4.54	0.503	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10
Uranium	2.17		1.14	0.0679	mg/Kg	✱	01/26/22 12:05	01/26/22 20:49	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0208	J	0.0232	0.00445	mg/Kg	✱	01/26/22 08:20	01/26/22 12:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.103		0.0713	0.0353	mg/Kg	✱	02/01/22 14:46	02/01/22 17:39	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-1 (5-6)

Lab Sample ID: 860-19628-4

Date Collected: 01/18/22 13:15

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 91.8

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	351		10.9	3.87	mg/Kg	✱	01/26/22 10:18	01/26/22 19:45	1
Fluoride	23.0		5.47	1.09	mg/Kg	✱	01/26/22 10:18	01/26/22 19:45	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.122	J	2.05	0.122	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Arsenic	2.36	J	4.11	0.634	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Barium	1370		4.11	0.356	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Beryllium	0.683	J	2.05	0.190	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Cadmium	<0.119	U	2.05	0.119	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Chromium	13.7		4.11	0.279	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Cobalt	6.51		2.05	0.118	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Lead	8.82		2.05	0.199	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Iron	11200		205	24.1	mg/Kg	✱	01/26/22 12:05	01/27/22 11:24	100
Manganese	1540		20.5	2.61	mg/Kg	✱	01/26/22 12:05	01/27/22 11:24	100
Nickel	8.13		2.05	0.151	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Selenium	0.543	J	2.05	0.510	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Silver	<0.163	U	2.05	0.163	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Vanadium	22.6		2.05	0.205	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Zinc	21.1		4.11	0.455	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10
Uranium	1.77		1.03	0.0614	mg/Kg	✱	01/26/22 12:05	01/26/22 20:52	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0612		0.0198	0.00380	mg/Kg	✱	01/26/22 08:20	01/26/22 12:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0550	J	0.0657	0.0326	mg/Kg	✱	02/01/22 14:46	02/01/22 17:41	1

Client Sample ID: BI-2 (0-1)

Lab Sample ID: 860-19628-5

Date Collected: 01/18/22 13:25

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 88.6

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.39	J	11.4	4.05	mg/Kg	✱	01/26/22 10:18	01/26/22 20:21	1
Fluoride	1.99	J	5.72	1.14	mg/Kg	✱	01/26/22 10:18	01/26/22 20:21	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.175	J	2.02	0.120	mg/Kg	✱	01/26/22 12:05	01/26/22 20:55	10
Arsenic	3.12	J	4.03	0.622	mg/Kg	✱	01/26/22 12:05	01/26/22 20:55	10
Barium	764		4.03	0.350	mg/Kg	✱	01/26/22 12:05	01/26/22 20:55	10
Beryllium	0.704	J	2.02	0.186	mg/Kg	✱	01/26/22 12:05	01/26/22 20:55	10
Cadmium	0.150	J	2.02	0.117	mg/Kg	✱	01/26/22 12:05	01/26/22 20:55	10
Chromium	15.1		4.03	0.273	mg/Kg	✱	01/26/22 12:05	01/26/22 20:55	10
Cobalt	5.60		2.02	0.115	mg/Kg	✱	01/26/22 12:05	01/26/22 20:55	10
Lead	9.92		2.02	0.195	mg/Kg	✱	01/26/22 12:05	01/26/22 20:55	10
Iron	16200		202	23.6	mg/Kg	✱	01/26/22 12:05	01/27/22 11:27	100
Manganese	1480		20.2	2.56	mg/Kg	✱	01/26/22 12:05	01/27/22 11:27	100

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-2 (0-1)

Lab Sample ID: 860-19628-5

Date Collected: 01/18/22 13:25

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 88.6

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	9.41		2.02	0.148	mg/Kg	☆	01/26/22 12:05	01/26/22 20:55	10
Selenium	0.763	J	2.02	0.500	mg/Kg	☆	01/26/22 12:05	01/26/22 20:55	10
Silver	<0.160	U	2.02	0.160	mg/Kg	☆	01/26/22 12:05	01/26/22 20:55	10
Vanadium	29.1		2.02	0.202	mg/Kg	☆	01/26/22 12:05	01/26/22 20:55	10
Zinc	23.6		4.03	0.446	mg/Kg	☆	01/26/22 12:05	01/26/22 20:55	10
Uranium	1.40		1.01	0.0602	mg/Kg	☆	01/26/22 12:05	01/26/22 20:55	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0134	J	0.0205	0.00394	mg/Kg	☆	01/26/22 08:20	01/26/22 13:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.120		0.0696	0.0345	mg/Kg	☆	02/01/22 14:46	02/01/22 17:42	1

Client Sample ID: BI-2 (5-6)

Lab Sample ID: 860-19628-6

Date Collected: 01/18/22 13:50

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 87.3

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	249		11.3	4.01	mg/Kg	☆	01/26/22 10:18	01/26/22 21:21	1
Fluoride	14.3		5.66	1.13	mg/Kg	☆	01/26/22 10:18	01/26/22 21:21	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.136	U	2.29	0.136	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Arsenic	1.29	J	4.58	0.707	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Barium	250		4.58	0.397	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Beryllium	0.772	J	2.29	0.212	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Cadmium	<0.133	U	2.29	0.133	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Chromium	12.6		4.58	0.311	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Cobalt	5.37		2.29	0.131	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Lead	6.95		2.29	0.222	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Iron	12400		229	26.9	mg/Kg	☆	01/26/22 12:05	01/27/22 11:30	100
Manganese	773		2.29	0.292	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Nickel	8.62		2.29	0.168	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Selenium	<0.568	U	2.29	0.568	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Silver	<0.182	U	2.29	0.182	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Vanadium	16.3		2.29	0.229	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Zinc	22.7		4.58	0.507	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10
Uranium	0.866	J	1.15	0.0685	mg/Kg	☆	01/26/22 12:05	01/26/22 20:58	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0154	J	0.0212	0.00408	mg/Kg	☆	01/26/22 08:20	01/26/22 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0509	J	0.0670	0.0332	mg/Kg	☆	02/01/22 14:56	02/01/22 17:44	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-3 (0-1)

Lab Sample ID: 860-19628-7

Date Collected: 01/18/22 14:00

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 76.8

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.9		12.8	4.54	mg/Kg	✱	01/26/22 10:18	01/26/22 21:33	1
Fluoride	16.7		6.41	1.28	mg/Kg	✱	01/26/22 10:18	01/26/22 21:33	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.174	J	2.41	0.143	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Arsenic	2.05	J	4.82	0.744	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Barium	655		4.82	0.418	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Beryllium	0.898	J	2.41	0.223	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Cadmium	<0.140	U	2.41	0.140	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Chromium	16.9		4.82	0.327	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Cobalt	6.03		2.41	0.138	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Lead	9.40		2.41	0.233	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Iron	16400		241	28.3	mg/Kg	✱	01/26/22 12:05	01/27/22 11:40	100
Manganese	422		2.41	0.307	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Nickel	10.5		2.41	0.177	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Selenium	<0.598	U	2.41	0.598	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Silver	<0.192	U	2.41	0.192	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Vanadium	30.8		2.41	0.241	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Zinc	23.5		4.82	0.534	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10
Uranium	0.686	J	1.21	0.0721	mg/Kg	✱	01/26/22 12:05	01/26/22 21:02	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00846	J	0.0260	0.00501	mg/Kg	✱	01/26/22 08:20	01/26/22 13:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0904		0.0755	0.0374	mg/Kg	✱	02/01/22 14:56	02/01/22 17:45	1

Client Sample ID: BI-3 (5-6)

Lab Sample ID: 860-19628-8

Date Collected: 01/18/22 14:33

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 85.4

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	209		11.9	4.20	mg/Kg	✱	01/26/22 10:18	01/26/22 21:45	1
Fluoride	18.7		5.94	1.19	mg/Kg	✱	01/26/22 10:18	01/26/22 21:45	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.151	J	2.09	0.124	mg/Kg	✱	01/26/22 12:05	01/26/22 21:05	10
Arsenic	1.41	J	4.18	0.645	mg/Kg	✱	01/26/22 12:05	01/26/22 21:05	10
Barium	1040		4.18	0.363	mg/Kg	✱	01/26/22 12:05	01/26/22 21:05	10
Beryllium	1.14	J	2.09	0.193	mg/Kg	✱	01/26/22 12:05	01/26/22 21:05	10
Cadmium	<0.121	U	2.09	0.121	mg/Kg	✱	01/26/22 12:05	01/26/22 21:05	10
Chromium	15.6		4.18	0.284	mg/Kg	✱	01/26/22 12:05	01/26/22 21:05	10
Cobalt	5.79		2.09	0.120	mg/Kg	✱	01/26/22 12:05	01/26/22 21:05	10
Lead	9.78		2.09	0.202	mg/Kg	✱	01/26/22 12:05	01/26/22 21:05	10
Iron	16700		209	24.5	mg/Kg	✱	01/26/22 12:05	01/27/22 11:43	100
Manganese	640		2.09	0.266	mg/Kg	✱	01/26/22 12:05	01/26/22 21:05	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-3 (5-6)

Lab Sample ID: 860-19628-8

Date Collected: 01/18/22 14:33

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 85.4

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	11.6		2.09	0.153	mg/Kg	☆	01/26/22 12:05	01/26/22 21:05	10
Selenium	<0.519	U	2.09	0.519	mg/Kg	☆	01/26/22 12:05	01/26/22 21:05	10
Silver	<0.166	U	2.09	0.166	mg/Kg	☆	01/26/22 12:05	01/26/22 21:05	10
Vanadium	17.0		2.09	0.209	mg/Kg	☆	01/26/22 12:05	01/26/22 21:05	10
Zinc	24.5		4.18	0.463	mg/Kg	☆	01/26/22 12:05	01/26/22 21:05	10
Uranium	0.858	J	1.05	0.0625	mg/Kg	☆	01/26/22 12:05	01/26/22 21:05	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00818	J	0.0202	0.00388	mg/Kg	☆	01/26/22 08:20	01/26/22 13:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0566	J	0.0703	0.0349	mg/Kg	☆	02/01/22 14:56	02/01/22 17:46	1

Client Sample ID: BI-4 (0-1)

Lab Sample ID: 860-19628-9

Date Collected: 01/18/22 15:15

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 83.0

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.67	J	12.3	4.34	mg/Kg	☆	01/26/22 10:18	01/26/22 21:56	1
Fluoride	3.45	J	6.13	1.23	mg/Kg	☆	01/26/22 10:18	01/26/22 21:56	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.155	J	2.15	0.128	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Arsenic	1.53	J	4.30	0.664	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Barium	321		4.30	0.373	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Beryllium	0.696	J	2.15	0.199	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Cadmium	<0.125	U	2.15	0.125	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Chromium	13.5		4.30	0.292	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Cobalt	5.05		2.15	0.123	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Lead	7.43		2.15	0.208	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Iron	13600		215	25.2	mg/Kg	☆	01/26/22 12:05	01/27/22 11:46	100
Manganese	549		2.15	0.274	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Nickel	8.99		2.15	0.158	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Selenium	<0.534	U	2.15	0.534	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Silver	<0.171	U	2.15	0.171	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Vanadium	20.4		2.15	0.215	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Zinc	20.0		4.30	0.476	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10
Uranium	0.521	J	1.08	0.0643	mg/Kg	☆	01/26/22 12:05	01/26/22 21:08	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0112	J	0.0236	0.00454	mg/Kg	☆	01/26/22 08:20	01/26/22 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.101		0.0743	0.0369	mg/Kg	☆	02/01/22 14:56	02/01/22 17:48	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-4 (5-6)

Lab Sample ID: 860-19628-10

Date Collected: 01/18/22 15:35

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 85.3

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	386		11.7	4.13	mg/Kg	✱	01/26/22 10:18	01/26/22 22:08	1
Fluoride	27.1		5.84	1.17	mg/Kg	✱	01/26/22 10:18	01/26/22 22:08	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.125	U	2.09	0.125	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Arsenic	1.27	J	4.19	0.646	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Barium	279		4.19	0.363	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Beryllium	0.757	J	2.09	0.194	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Cadmium	<0.121	U	2.09	0.121	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Chromium	13.2		4.19	0.284	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Cobalt	5.55		2.09	0.120	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Lead	8.91		2.09	0.203	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Iron	15300		209	24.5	mg/Kg	✱	01/26/22 12:05	01/27/22 11:49	100
Manganese	532		2.09	0.266	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Nickel	9.69		2.09	0.154	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Selenium	<0.519	U	2.09	0.519	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Silver	<0.166	U	2.09	0.166	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Vanadium	17.3		2.09	0.209	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Zinc	22.2		4.19	0.463	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10
Uranium	0.723	J	1.05	0.0626	mg/Kg	✱	01/26/22 12:05	01/26/22 21:11	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00701	J	0.0209	0.00402	mg/Kg	✱	01/26/22 08:20	01/26/22 13:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0540	J	0.0716	0.0355	mg/Kg	✱	02/01/22 14:56	02/01/22 17:49	1

Client Sample ID: BI-5 (0-1)

Lab Sample ID: 860-19628-11

Date Collected: 01/18/22 14:45

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 84.2

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.30	J	11.7	4.15	mg/Kg	✱	01/26/22 10:18	01/26/22 22:20	1
Fluoride	5.31	J	5.87	1.17	mg/Kg	✱	01/26/22 10:18	01/26/22 22:20	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.188	J	2.12	0.126	mg/Kg	✱	01/26/22 12:05	01/26/22 21:14	10
Arsenic	2.12	J	4.24	0.654	mg/Kg	✱	01/26/22 12:05	01/26/22 21:14	10
Barium	367		4.24	0.368	mg/Kg	✱	01/26/22 12:05	01/26/22 21:14	10
Beryllium	0.728	J	2.12	0.196	mg/Kg	✱	01/26/22 12:05	01/26/22 21:14	10
Cadmium	<0.123	U	2.12	0.123	mg/Kg	✱	01/26/22 12:05	01/26/22 21:14	10
Chromium	14.8		4.24	0.288	mg/Kg	✱	01/26/22 12:05	01/26/22 21:14	10
Cobalt	4.80		2.12	0.121	mg/Kg	✱	01/26/22 12:05	01/26/22 21:14	10
Lead	9.31		2.12	0.205	mg/Kg	✱	01/26/22 12:05	01/26/22 21:14	10
Iron	16600		212	24.9	mg/Kg	✱	01/26/22 12:05	01/27/22 11:52	100
Manganese	456		2.12	0.270	mg/Kg	✱	01/26/22 12:05	01/26/22 21:14	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-5 (0-1)

Lab Sample ID: 860-19628-11

Date Collected: 01/18/22 14:45

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 84.2

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	8.53		2.12	0.156	mg/Kg	☆	01/26/22 12:05	01/26/22 21:14	10
Selenium	<0.526	U	2.12	0.526	mg/Kg	☆	01/26/22 12:05	01/26/22 21:14	10
Silver	<0.168	U	2.12	0.168	mg/Kg	☆	01/26/22 12:05	01/26/22 21:14	10
Vanadium	25.9		2.12	0.212	mg/Kg	☆	01/26/22 12:05	01/26/22 21:14	10
Zinc	19.4		4.24	0.469	mg/Kg	☆	01/26/22 12:05	01/26/22 21:14	10
Uranium	0.716	J	1.06	0.0634	mg/Kg	☆	01/26/22 12:05	01/26/22 21:14	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0150	J	0.0233	0.00448	mg/Kg	☆	01/26/22 08:20	01/26/22 13:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.123	F1	0.0682	0.0338	mg/Kg	☆	02/01/22 14:56	02/01/22 17:51	1

Client Sample ID: BI-5 (5-6)

Lab Sample ID: 860-19628-12

Date Collected: 01/18/22 13:05

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 84.5

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	347		11.7	4.13	mg/Kg	☆	01/26/22 10:18	01/26/22 22:32	1
Fluoride	21.4		5.84	1.17	mg/Kg	☆	01/26/22 10:18	01/26/22 22:32	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.301	J	2.08	0.124	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Arsenic	1.86	J	4.15	0.640	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Barium	635		4.15	0.360	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Beryllium	2.06	J	2.08	0.192	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Cadmium	<0.120	U	2.08	0.120	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Chromium	30.8		4.15	0.282	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Cobalt	10.1		2.08	0.119	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Lead	17.2		2.08	0.201	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Iron	28300		208	24.3	mg/Kg	☆	01/26/22 16:03	01/27/22 17:28	100
Manganese	397		2.08	0.264	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Nickel	20.5		2.08	0.152	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Selenium	0.606	J	2.08	0.515	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Silver	<0.165	U	2.08	0.165	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Vanadium	37.5		2.08	0.208	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Zinc	52.2		4.15	0.459	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10
Uranium	1.39		1.04	0.0621	mg/Kg	☆	01/26/22 16:03	01/27/22 17:10	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00392	U	0.0204	0.00392	mg/Kg	☆	01/26/22 08:20	01/26/22 13:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0527	J	0.0703	0.0349	mg/Kg	☆	02/01/22 14:56	02/01/22 17:58	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-6 (0-1)

Lab Sample ID: 860-19628-13

Date Collected: 01/19/22 10:00

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 79.2

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.0		12.8	4.54	mg/Kg	✱	01/26/22 10:18	01/26/22 22:44	1
Fluoride	5.76	J	6.42	1.28	mg/Kg	✱	01/26/22 10:18	01/26/22 22:44	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.139	U	2.34	0.139	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Arsenic	1.78	J	4.68	0.721	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Barium	210		4.68	0.406	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Beryllium	0.742	J	2.34	0.216	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Cadmium	<0.136	U	2.34	0.136	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Chromium	11.7		4.68	0.317	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Cobalt	4.39		2.34	0.134	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Lead	6.79		2.34	0.226	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Iron	9950		234	27.4	mg/Kg	✱	01/26/22 16:03	01/27/22 17:56	100
Manganese	889		2.34	0.298	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Nickel	7.67		2.34	0.172	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Selenium	<0.580	U	2.34	0.580	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Silver	<0.186	U	2.34	0.186	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Vanadium	19.0		2.34	0.234	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Zinc	29.1		4.68	0.517	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10
Uranium	0.475	J	1.17	0.0699	mg/Kg	✱	01/26/22 16:03	01/27/22 17:44	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00874	J	0.0243	0.00467	mg/Kg	✱	01/26/22 08:20	01/26/22 13:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.101		0.0758	0.0376	mg/Kg	✱	02/02/22 14:57	02/02/22 17:32	1

Client Sample ID: BI-6 (5-6)

Lab Sample ID: 860-19628-14

Date Collected: 01/19/22 10:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 93.8

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.8		10.8	3.81	mg/Kg	✱	01/26/22 10:18	01/26/22 22:56	1
Fluoride	3.81	J	5.39	1.08	mg/Kg	✱	01/26/22 10:18	01/26/22 22:56	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.113	U	1.90	0.113	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10
Arsenic	0.980	J	3.81	0.587	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10
Barium	120		3.81	0.330	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10
Beryllium	0.499	J	1.90	0.176	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10
Cadmium	<0.110	U	1.90	0.110	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10
Chromium	7.39		3.81	0.258	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10
Cobalt	4.06		1.90	0.109	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10
Lead	6.40		1.90	0.184	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10
Iron	9000		19.0	2.23	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10
Manganese	526		1.90	0.242	mg/Kg	✱	01/26/22 16:03	01/27/22 17:47	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-6 (5-6)

Lab Sample ID: 860-19628-14

Date Collected: 01/19/22 10:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 93.8

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	6.35		1.90	0.140	mg/Kg	☆	01/26/22 16:03	01/27/22 17:47	10
Selenium	<0.473	U	1.90	0.473	mg/Kg	☆	01/26/22 16:03	01/27/22 17:47	10
Silver	<0.151	U	1.90	0.151	mg/Kg	☆	01/26/22 16:03	01/27/22 17:47	10
Vanadium	12.1		1.90	0.190	mg/Kg	☆	01/26/22 16:03	01/27/22 17:47	10
Zinc	17.1		3.81	0.421	mg/Kg	☆	01/26/22 16:03	01/27/22 17:47	10
Uranium	0.526	J	0.952	0.0569	mg/Kg	☆	01/26/22 16:03	01/27/22 17:47	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00698	J	0.0194	0.00373	mg/Kg	☆	01/26/22 08:20	01/26/22 13:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0317	U	0.0640	0.0317	mg/Kg	☆	02/02/22 14:57	02/02/22 17:34	1

Client Sample ID: BI-7 (0-1)

Lab Sample ID: 860-19628-15

Date Collected: 01/19/22 11:18

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 84.5

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.38	J	11.9	4.22	mg/Kg	☆	01/26/22 10:18	01/27/22 00:07	1
Fluoride	1.77	J	5.96	1.19	mg/Kg	☆	01/26/22 10:18	01/27/22 00:07	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.135	U	2.28	0.135	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Arsenic	1.36	J	4.55	0.702	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Barium	247		4.55	0.395	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Beryllium	0.559	J	2.28	0.211	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Cadmium	<0.132	U	2.28	0.132	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Chromium	8.11		4.55	0.309	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Cobalt	3.98		2.28	0.130	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Lead	7.08		2.28	0.220	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Iron	9710		22.8	2.67	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Manganese	567		2.28	0.290	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Nickel	6.57		2.28	0.167	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Selenium	<0.565	U	2.28	0.565	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Silver	<0.181	U	2.28	0.181	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Vanadium	13.7		2.28	0.228	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Zinc	21.9		4.55	0.504	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10
Uranium	0.498	J	1.14	0.0680	mg/Kg	☆	01/26/22 16:03	01/27/22 17:50	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0241		0.0232	0.00446	mg/Kg	☆	01/26/22 08:20	01/26/22 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0793		0.0710	0.0352	mg/Kg	☆	02/02/22 14:57	02/02/22 17:35	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-7 (5-6)

Lab Sample ID: 860-19628-16

Date Collected: 01/19/22 11:45

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 93.0

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.9		10.7	3.79	mg/Kg	✱	01/26/22 10:18	01/27/22 00:19	1
Fluoride	7.27		5.36	1.07	mg/Kg	✱	01/26/22 10:18	01/27/22 00:19	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.121	U	2.03	0.121	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Arsenic	0.736	J	4.06	0.626	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Barium	370		4.06	0.352	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Beryllium	0.557	J	2.03	0.188	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Cadmium	<0.118	U	2.03	0.118	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Chromium	9.14		4.06	0.275	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Cobalt	2.85		2.03	0.116	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Lead	10.6		2.03	0.196	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Iron	11400		203	23.8	mg/Kg	✱	01/26/22 16:03	01/27/22 18:06	100
Manganese	211		2.03	0.258	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Nickel	4.96		2.03	0.149	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Selenium	<0.503	U	2.03	0.503	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Silver	<0.161	U	2.03	0.161	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Vanadium	24.6		2.03	0.203	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Zinc	14.6		4.06	0.449	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10
Uranium	0.354	J	1.01	0.0607	mg/Kg	✱	01/26/22 16:03	01/27/22 17:53	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00591	J	0.0211	0.00405	mg/Kg	✱	01/26/22 08:20	01/26/22 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0325	J	0.0645	0.0320	mg/Kg	✱	02/02/22 14:57	02/02/22 17:37	1

Client Sample ID: BI-8 (0-1)

Lab Sample ID: 860-19628-17

Date Collected: 01/19/22 11:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 91.6

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	173		10.7	3.81	mg/Kg	✱	01/26/22 10:18	01/27/22 00:31	1
Fluoride	3.42	J	5.37	1.07	mg/Kg	✱	01/26/22 10:18	01/27/22 00:31	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.116	U	1.95	0.116	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10
Arsenic	<0.602	U	3.90	0.602	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10
Barium	106		3.90	0.338	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10
Beryllium	0.555	J	1.95	0.180	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10
Cadmium	<0.113	U	1.95	0.113	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10
Chromium	7.21		3.90	0.264	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10
Cobalt	3.48		1.95	0.112	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10
Lead	5.36		1.95	0.189	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10
Iron	8480		19.5	2.29	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10
Manganese	110		1.95	0.248	mg/Kg	✱	01/26/22 16:03	01/27/22 18:15	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-8 (0-1)

Lab Sample ID: 860-19628-17

Date Collected: 01/19/22 11:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 91.6

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	6.01		1.95	0.143	mg/Kg	☆	01/26/22 16:03	01/27/22 18:15	10
Selenium	<0.484	U	1.95	0.484	mg/Kg	☆	01/26/22 16:03	01/27/22 18:15	10
Silver	<0.155	U	1.95	0.155	mg/Kg	☆	01/26/22 16:03	01/27/22 18:15	10
Vanadium	12.7		1.95	0.195	mg/Kg	☆	01/26/22 16:03	01/27/22 18:15	10
Zinc	16.8		3.90	0.432	mg/Kg	☆	01/26/22 16:03	01/27/22 18:15	10
Uranium	0.531	J	0.975	0.0583	mg/Kg	☆	01/26/22 16:03	01/27/22 18:15	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00396	U	0.0206	0.00396	mg/Kg	☆	01/26/22 08:20	01/26/22 13:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0325	U	0.0655	0.0325	mg/Kg	☆	02/02/22 14:57	02/02/22 17:41	1

Client Sample ID: BI-8 (5-6)

Lab Sample ID: 860-19628-18

Date Collected: 01/19/22 12:05

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 82.1

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.8		12.3	4.34	mg/Kg	☆	01/26/22 10:18	01/27/22 00:43	1
Fluoride	7.52		6.13	1.23	mg/Kg	☆	01/26/22 10:18	01/27/22 00:43	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.132	U	2.21	0.132	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Arsenic	1.40	J	4.43	0.683	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Barium	503		4.43	0.384	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Beryllium	1.07	J	2.21	0.205	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Cadmium	<0.128	U	2.21	0.128	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Chromium	18.4		4.43	0.300	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Cobalt	7.44		2.21	0.127	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Lead	12.0		2.21	0.214	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Iron	17700		221	26.0	mg/Kg	☆	01/26/22 16:03	01/27/22 18:34	100
Manganese	495		2.21	0.282	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Nickel	13.8		2.21	0.163	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Selenium	<0.549	U	2.21	0.549	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Silver	<0.176	U	2.21	0.176	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Vanadium	31.2		2.21	0.221	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Zinc	33.8		4.43	0.490	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10
Uranium	0.476	J	1.11	0.0662	mg/Kg	☆	01/26/22 16:03	01/27/22 18:18	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00872	J	0.0239	0.00459	mg/Kg	☆	01/26/22 08:20	01/26/22 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0701	J	0.0731	0.0362	mg/Kg	☆	02/02/22 14:57	02/02/22 17:42	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-9 (0-1)

Lab Sample ID: 860-19628-19

Date Collected: 01/19/22 12:30

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 83.6

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.4	J	11.9	4.22	mg/Kg	✱	01/26/22 10:18	01/27/22 00:55	1
Fluoride	1.72	J	5.96	1.19	mg/Kg	✱	01/26/22 10:18	01/27/22 00:55	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.132	U	2.22	0.132	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Arsenic	2.46	J	4.43	0.683	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Barium	1270		4.43	0.384	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Beryllium	0.876	J	2.22	0.205	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Cadmium	<0.128	U	2.22	0.128	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Chromium	13.1		4.43	0.300	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Cobalt	4.92		2.22	0.127	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Lead	8.04		2.22	0.214	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Iron	12500		222	26.0	mg/Kg	✱	01/26/22 16:03	01/27/22 18:37	100
Manganese	631		2.22	0.282	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Nickel	9.27		2.22	0.163	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Selenium	<0.550	U	2.22	0.550	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Silver	<0.176	U	2.22	0.176	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Vanadium	20.4		2.22	0.221	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Zinc	21.8		4.43	0.490	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10
Uranium	0.546	J	1.11	0.0662	mg/Kg	✱	01/26/22 16:03	01/27/22 18:21	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0181	J	0.0222	0.00426	mg/Kg	✱	01/26/22 08:20	01/26/22 13:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0878	H	0.0718	0.0356	mg/Kg	✱	02/03/22 10:12	02/03/22 15:44	1

Client Sample ID: BI-9 (5-6)

Lab Sample ID: 860-19628-20

Date Collected: 01/19/22 12:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 86.3

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	183		11.6	4.09	mg/Kg	✱	01/26/22 10:18	01/27/22 01:06	1
Fluoride	7.38		5.78	1.16	mg/Kg	✱	01/26/22 10:18	01/27/22 01:06	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.121	U	2.03	0.121	mg/Kg	✱	01/26/22 16:03	01/27/22 18:24	10
Arsenic	1.18	J	4.07	0.627	mg/Kg	✱	01/26/22 16:03	01/27/22 18:24	10
Barium	92.0		4.07	0.353	mg/Kg	✱	01/26/22 16:03	01/27/22 18:24	10
Beryllium	1.12	J	2.03	0.188	mg/Kg	✱	01/26/22 16:03	01/27/22 18:24	10
Cadmium	<0.118	U	2.03	0.118	mg/Kg	✱	01/26/22 16:03	01/27/22 18:24	10
Chromium	7.29		4.07	0.276	mg/Kg	✱	01/26/22 16:03	01/27/22 18:24	10
Cobalt	2.96		2.03	0.116	mg/Kg	✱	01/26/22 16:03	01/27/22 18:24	10
Lead	9.90		2.03	0.197	mg/Kg	✱	01/26/22 16:03	01/27/22 18:24	10
Iron	12000		203	23.8	mg/Kg	✱	01/26/22 16:03	01/27/22 18:40	100
Manganese	250		2.03	0.259	mg/Kg	✱	01/26/22 16:03	01/27/22 18:24	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-9 (5-6)

Lab Sample ID: 860-19628-20

Date Collected: 01/19/22 12:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 86.3

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	6.79		2.03	0.149	mg/Kg	☆	01/26/22 16:03	01/27/22 18:24	10
Selenium	<0.504	U	2.03	0.504	mg/Kg	☆	01/26/22 16:03	01/27/22 18:24	10
Silver	<0.162	U	2.03	0.162	mg/Kg	☆	01/26/22 16:03	01/27/22 18:24	10
Vanadium	10.5		2.03	0.203	mg/Kg	☆	01/26/22 16:03	01/27/22 18:24	10
Zinc	17.1		4.07	0.450	mg/Kg	☆	01/26/22 16:03	01/27/22 18:24	10
Uranium	0.655	J	1.02	0.0608	mg/Kg	☆	01/26/22 16:03	01/27/22 18:24	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00420	U	0.0219	0.00420	mg/Kg	☆	01/26/22 08:20	01/26/22 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0345	U H	0.0695	0.0345	mg/Kg	☆	02/03/22 10:12	02/03/22 15:49	1

Client Sample ID: BI-10 (0-1)

Lab Sample ID: 860-19628-21

Date Collected: 01/19/22 13:10

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 90.7

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.8		11.1	3.93	mg/Kg	☆	01/26/22 10:18	01/27/22 01:18	1
Fluoride	13.1		5.55	1.11	mg/Kg	☆	01/26/22 10:18	01/27/22 01:18	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.124	U	2.08	0.124	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Arsenic	1.81	J	4.16	0.642	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Barium	1060		4.16	0.361	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Beryllium	0.582	J	2.08	0.193	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Cadmium	0.190	J	2.08	0.121	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Chromium	10.9		4.16	0.282	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Cobalt	4.43		2.08	0.119	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Lead	7.37		2.08	0.201	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Iron	10000		20.8	2.44	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Manganese	1260		20.8	2.65	mg/Kg	☆	01/26/22 16:03	01/27/22 18:43	100
Nickel	7.31		2.08	0.153	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Selenium	<0.516	U	2.08	0.516	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Silver	<0.165	U	2.08	0.165	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Vanadium	20.1		2.08	0.208	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Zinc	18.2		4.16	0.460	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10
Uranium	1.23		1.04	0.0622	mg/Kg	☆	01/26/22 16:03	01/27/22 18:27	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0161	J	0.0208	0.00400	mg/Kg	☆	01/26/22 08:20	01/26/22 13:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0458	J H	0.0662	0.0328	mg/Kg	☆	02/03/22 10:12	02/03/22 15:50	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-10 (5-6)

Lab Sample ID: 860-19628-22

Date Collected: 01/19/22 13:40

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 91.7

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	109		11.1	3.92	mg/Kg	✱	01/26/22 10:18	01/27/22 01:54	1
Fluoride	12.6		5.54	1.11	mg/Kg	✱	01/26/22 10:18	01/27/22 01:54	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.120	U	2.02	0.120	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Arsenic	3.45	J	4.04	0.623	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Barium	365		4.04	0.350	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Beryllium	0.823	J	2.02	0.187	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Cadmium	0.187	J	2.02	0.117	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Chromium	12.1		4.04	0.274	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Cobalt	7.30		2.02	0.116	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Lead	10.8		2.02	0.196	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Iron	10800		202	23.7	mg/Kg	✱	01/26/22 16:03	01/27/22 19:08	100
Manganese	1180		20.2	2.57	mg/Kg	✱	01/26/22 16:03	01/27/22 19:08	100
Nickel	11.2		2.02	0.148	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Selenium	<0.501	U	2.02	0.501	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Silver	<0.160	U	2.02	0.160	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Vanadium	15.0		2.02	0.202	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Zinc	24.2		4.04	0.447	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10
Uranium	1.27		1.01	0.0604	mg/Kg	✱	01/26/22 16:03	01/27/22 18:52	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0150	J	0.0188	0.00361	mg/Kg	✱	01/26/22 08:20	01/26/22 13:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0362	J H	0.0654	0.0325	mg/Kg	✱	02/03/22 10:12	02/03/22 15:51	1

Client Sample ID: BI-11 (0-1)

Lab Sample ID: 860-19628-23

Date Collected: 01/19/22 13:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 78.3

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.9		12.7	4.50	mg/Kg	✱	01/26/22 10:18	01/27/22 02:06	1
Fluoride	5.03	J	6.36	1.27	mg/Kg	✱	01/26/22 10:18	01/27/22 02:06	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.138	U	2.32	0.138	mg/Kg	✱	01/26/22 16:03	01/27/22 18:55	10
Arsenic	1.35	J	4.64	0.716	mg/Kg	✱	01/26/22 16:03	01/27/22 18:55	10
Barium	233		4.64	0.403	mg/Kg	✱	01/26/22 16:03	01/27/22 18:55	10
Beryllium	1.24	J	2.32	0.215	mg/Kg	✱	01/26/22 16:03	01/27/22 18:55	10
Cadmium	<0.135	U	2.32	0.135	mg/Kg	✱	01/26/22 16:03	01/27/22 18:55	10
Chromium	18.9		4.64	0.315	mg/Kg	✱	01/26/22 16:03	01/27/22 18:55	10
Cobalt	7.08		2.32	0.133	mg/Kg	✱	01/26/22 16:03	01/27/22 18:55	10
Lead	12.6		2.32	0.225	mg/Kg	✱	01/26/22 16:03	01/27/22 18:55	10
Iron	15000		232	27.2	mg/Kg	✱	01/26/22 16:03	01/27/22 19:11	100
Manganese	417		2.32	0.296	mg/Kg	✱	01/26/22 16:03	01/27/22 18:55	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-11 (0-1)

Lab Sample ID: 860-19628-23

Date Collected: 01/19/22 13:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 78.3

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	14.2		2.32	0.170	mg/Kg	☆	01/26/22 16:03	01/27/22 18:55	10
Selenium	<0.576	U	2.32	0.576	mg/Kg	☆	01/26/22 16:03	01/27/22 18:55	10
Silver	<0.184	U	2.32	0.184	mg/Kg	☆	01/26/22 16:03	01/27/22 18:55	10
Vanadium	22.6		2.32	0.232	mg/Kg	☆	01/26/22 16:03	01/27/22 18:55	10
Zinc	29.2		4.64	0.514	mg/Kg	☆	01/26/22 16:03	01/27/22 18:55	10
Uranium	0.766	J	1.16	0.0694	mg/Kg	☆	01/26/22 16:03	01/27/22 18:55	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00795	J	0.0224	0.00431	mg/Kg	☆	01/26/22 08:20	01/26/22 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.119	H	0.0766	0.0380	mg/Kg	☆	02/03/22 10:12	02/03/22 15:53	1

Client Sample ID: BI-11 (5-6)

Lab Sample ID: 860-19628-24

Date Collected: 01/19/22 14:30

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 86.2

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	214		11.5	4.06	mg/Kg	☆	01/26/22 10:18	01/27/22 02:42	1
Fluoride	9.27		5.73	1.15	mg/Kg	☆	01/26/22 10:18	01/27/22 02:42	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.135	J	2.07	0.123	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Arsenic	1.86	J	4.14	0.639	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Barium	387		4.14	0.359	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Beryllium	1.28	J	2.07	0.192	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Cadmium	<0.120	U	2.07	0.120	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Chromium	20.1		4.14	0.281	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Cobalt	7.46		2.07	0.119	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Lead	12.0		2.07	0.201	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Iron	18300		207	24.3	mg/Kg	☆	01/26/22 16:03	01/27/22 19:14	100
Manganese	407		2.07	0.264	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Nickel	15.8		2.07	0.152	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Selenium	<0.514	U	2.07	0.514	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Silver	<0.165	U	2.07	0.165	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Vanadium	25.9		2.07	0.207	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Zinc	27.7		4.14	0.458	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10
Uranium	1.55		1.04	0.0619	mg/Kg	☆	01/26/22 16:03	01/27/22 18:58	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00602	J	0.0219	0.00421	mg/Kg	☆	01/26/22 08:20	01/26/22 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0549	J	0.0696	0.0345	mg/Kg	☆	02/02/22 14:57	02/02/22 16:42	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: DUP-1-19-22

Lab Sample ID: 860-19628-25

Date Collected: 01/19/22 00:00

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 82.6

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.5		12.2	4.30	mg/Kg	✱	01/26/22 10:18	01/27/22 02:53	1
Fluoride	5.03	J	6.08	1.22	mg/Kg	✱	01/26/22 10:18	01/27/22 02:53	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.124	U	2.09	0.124	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Arsenic	1.54	J	4.17	0.644	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Barium	167		4.17	0.362	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Beryllium	0.571	J	2.09	0.193	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Cadmium	<0.121	U	2.09	0.121	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Chromium	11.6		4.17	0.283	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Cobalt	4.03		2.09	0.120	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Lead	6.14		2.09	0.202	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Iron	9010		209	24.5	mg/Kg	✱	01/26/22 16:03	01/27/22 19:17	100
Manganese	624		2.09	0.266	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Nickel	6.90		2.09	0.153	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Selenium	<0.518	U	2.09	0.518	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Silver	<0.166	U	2.09	0.166	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Vanadium	16.8		2.09	0.209	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Zinc	21.4		4.17	0.462	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10
Uranium	0.423	J	1.04	0.0624	mg/Kg	✱	01/26/22 16:03	01/27/22 19:01	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0230		0.0228	0.00439	mg/Kg	✱	01/26/22 08:20	01/26/22 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.113		0.0726	0.0360	mg/Kg	✱	02/02/22 14:57	02/02/22 16:43	1

Client Sample ID: EB-1-19-22

Lab Sample ID: 860-19628-26

Date Collected: 01/19/22 10:00

Matrix: Water

Date Received: 01/25/22 12:02

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.200	U	0.500	0.200	mg/L			01/25/22 23:50	1
Fluoride	<0.100	U	0.500	0.100	mg/L			01/25/22 23:50	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000240	U	0.00200	0.000240	mg/L		01/26/22 08:30	01/26/22 18:26	1
Arsenic	<0.000246	U	0.00400	0.000246	mg/L		01/26/22 08:30	01/26/22 18:26	1
Barium	<0.000484	U	0.00400	0.000484	mg/L		01/26/22 08:30	01/26/22 18:26	1
Beryllium	<0.000131	U	0.00200	0.000131	mg/L		01/26/22 08:30	01/26/22 18:26	1
Cadmium	<0.000147	U	0.00200	0.000147	mg/L		01/26/22 08:30	01/26/22 18:26	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		01/26/22 08:30	01/26/22 18:26	1
Cobalt	<0.0000699	U	0.00200	0.0000699	mg/L		01/26/22 08:30	01/26/22 18:26	1
Iron	<0.0227	U	0.100	0.0227	mg/L		01/26/22 08:30	01/26/22 18:26	1
Lead	<0.000152	U	0.00200	0.000152	mg/L		01/26/22 08:30	01/26/22 18:26	1
Manganese	0.000315	J B	0.00200	0.000199	mg/L		01/26/22 08:30	01/26/22 18:26	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: EB-1-19-22

Lab Sample ID: 860-19628-26

Date Collected: 01/19/22 10:00

Matrix: Water

Date Received: 01/25/22 12:02

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.000945	J	0.00200	0.000292	mg/L		01/26/22 08:30	01/26/22 18:26	1
Selenium	<0.000454	U	0.00200	0.000454	mg/L		01/26/22 08:30	01/26/22 18:26	1
Silver	<0.000251	U	0.00200	0.000251	mg/L		01/26/22 08:30	01/26/22 18:26	1
Uranium	<0.000211	U	0.00100	0.000211	mg/L		01/26/22 08:30	01/26/22 18:26	1
Vanadium	<0.000164	U	0.00200	0.000164	mg/L		01/26/22 08:30	01/26/22 18:26	1
Zinc	0.000826	J B	0.00400	0.000802	mg/L		01/26/22 08:30	01/26/22 18:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000263	U	0.000200	0.0000263	mg/L		01/26/22 09:25	01/26/22 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	3.09	J H	5.00	1.98	ug/L		02/03/22 10:12	02/03/22 15:33	1

Client Sample ID: EB-1-20-22

Lab Sample ID: 860-19628-27

Date Collected: 01/20/22 08:40

Matrix: Water

Date Received: 01/25/22 12:02

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.200	U	0.500	0.200	mg/L			01/25/22 23:14	1
Fluoride	<0.100	U	0.500	0.100	mg/L			01/25/22 23:14	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000240	U	0.00200	0.000240	mg/L		01/26/22 08:30	01/26/22 18:29	1
Arsenic	<0.000246	U	0.00400	0.000246	mg/L		01/26/22 08:30	01/26/22 18:29	1
Barium	<0.000484	U	0.00400	0.000484	mg/L		01/26/22 08:30	01/26/22 18:29	1
Beryllium	<0.000131	U	0.00200	0.000131	mg/L		01/26/22 08:30	01/26/22 18:29	1
Cadmium	<0.000147	U	0.00200	0.000147	mg/L		01/26/22 08:30	01/26/22 18:29	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		01/26/22 08:30	01/26/22 18:29	1
Cobalt	<0.0000699	U	0.00200	0.0000699	mg/L		01/26/22 08:30	01/26/22 18:29	1
Iron	<0.0227	U	0.100	0.0227	mg/L		01/26/22 08:30	01/26/22 18:29	1
Lead	<0.000152	U	0.00200	0.000152	mg/L		01/26/22 08:30	01/26/22 18:29	1
Manganese	0.000437	J B	0.00200	0.000199	mg/L		01/26/22 08:30	01/26/22 18:29	1
Nickel	0.000942	J	0.00200	0.000292	mg/L		01/26/22 08:30	01/26/22 18:29	1
Selenium	<0.000454	U	0.00200	0.000454	mg/L		01/26/22 08:30	01/26/22 18:29	1
Silver	<0.000251	U	0.00200	0.000251	mg/L		01/26/22 08:30	01/26/22 18:29	1
Uranium	<0.000211	U	0.00100	0.000211	mg/L		01/26/22 08:30	01/26/22 18:29	1
Vanadium	<0.000164	U	0.00200	0.000164	mg/L		01/26/22 08:30	01/26/22 18:29	1
Zinc	0.000824	J B	0.00400	0.000802	mg/L		01/26/22 08:30	01/26/22 18:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000263	U	0.000200	0.0000263	mg/L		01/26/22 09:25	01/26/22 15:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<1.98	U	5.00	1.98	ug/L		02/03/22 10:12	02/03/22 15:35	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-14 (0-1)

Lab Sample ID: 860-19628-28

Date Collected: 01/20/22 08:40

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 79.5

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.2	J	12.7	4.48	mg/Kg	✱	01/26/22 10:18	01/27/22 03:05	1
Fluoride	3.40	J	6.33	1.27	mg/Kg	✱	01/26/22 10:18	01/27/22 03:05	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.147	U	2.47	0.147	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Arsenic	1.24	J	4.93	0.761	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Barium	211		4.93	0.428	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Beryllium	1.01	J	2.47	0.228	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Cadmium	<0.143	U	2.47	0.143	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Chromium	16.9		4.93	0.334	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Cobalt	6.01		2.47	0.141	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Lead	9.94		2.47	0.239	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Iron	12500		247	28.9	mg/Kg	✱	01/26/22 16:03	01/27/22 19:20	100
Manganese	374		2.47	0.314	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Nickel	13.1		2.47	0.181	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Selenium	<0.612	U	2.47	0.612	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Silver	<0.196	U	2.47	0.196	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Vanadium	20.3		2.47	0.247	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Zinc	21.8		4.93	0.546	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10
Uranium	0.561	J	1.23	0.0737	mg/Kg	✱	01/26/22 16:03	01/27/22 19:05	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0169	J	0.0247	0.00474	mg/Kg	✱	01/26/22 08:20	01/26/22 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0771		0.0755	0.0374	mg/Kg	✱	02/02/22 14:57	02/02/22 16:45	1

Client Sample ID: BI-14 (5-6)

Lab Sample ID: 860-19628-29

Date Collected: 01/20/22 09:05

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 86.6

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	158		11.7	4.15	mg/Kg	✱	01/26/22 10:18	01/27/22 03:41	1
Fluoride	10.1		5.86	1.17	mg/Kg	✱	01/26/22 10:18	01/27/22 03:41	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.123	U	2.06	0.123	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Arsenic	0.853	J	4.12	0.636	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Barium	155		4.12	0.358	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Beryllium	0.771	J	2.06	0.191	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Cadmium	<0.120	U	2.06	0.120	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Chromium	8.75		4.12	0.280	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Cobalt	3.83		2.06	0.118	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Lead	7.90		2.06	0.200	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Iron	8910		206	24.2	mg/Kg	✱	01/26/22 16:03	01/27/22 19:48	100
Manganese	336		2.06	0.262	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-14 (5-6)

Lab Sample ID: 860-19628-29

Date Collected: 01/20/22 09:05

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 86.6

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	7.88		2.06	0.151	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Selenium	<0.512	U	2.06	0.512	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Silver	<0.164	U	2.06	0.164	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Vanadium	12.5		2.06	0.206	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Zinc	13.6		4.12	0.456	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10
Uranium	0.639	J	1.03	0.0616	mg/Kg	✱	01/26/22 16:03	01/27/22 19:36	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00708	J	0.0218	0.00419	mg/Kg	✱	01/26/22 08:20	01/26/22 13:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0540	J	0.0693	0.0344	mg/Kg	✱	02/02/22 14:57	02/02/22 16:46	1

Client Sample ID: BI-16 (0-1)

Lab Sample ID: 860-19628-30

Date Collected: 01/20/22 09:15

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 77.8

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.7		13.1	4.63	mg/Kg	✱	01/26/22 10:18	01/27/22 04:17	1
Fluoride	9.54		6.54	1.31	mg/Kg	✱	01/26/22 10:18	01/27/22 04:17	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.147	U	2.47	0.147	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Arsenic	1.48	J	4.94	0.762	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Barium	300		4.94	0.429	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Beryllium	1.33	J	2.47	0.229	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Cadmium	<0.143	U	2.47	0.143	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Chromium	19.2		4.94	0.335	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Cobalt	7.61		2.47	0.142	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Lead	13.6		2.47	0.239	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Iron	15500		247	29.0	mg/Kg	✱	01/26/22 16:03	01/27/22 19:42	100
Manganese	449		2.47	0.315	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Nickel	15.0		2.47	0.181	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Selenium	<0.613	U	2.47	0.613	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Silver	<0.196	U	2.47	0.196	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Vanadium	22.7		2.47	0.247	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Zinc	24.7		4.94	0.547	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10
Uranium	0.790	J	1.24	0.0739	mg/Kg	✱	01/26/22 16:03	01/27/22 19:29	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00913	J	0.0225	0.00433	mg/Kg	✱	01/26/22 08:20	01/26/22 13:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0700	J	0.0771	0.0383	mg/Kg	✱	02/02/22 14:57	02/02/22 16:47	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-16 (5-6)

Lab Sample ID: 860-19628-31

Date Collected: 01/20/22 09:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 89.7

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	210		11.2	3.97	mg/Kg	✱	01/26/22 10:18	01/27/22 04:29	1
Fluoride	4.61	J	5.61	1.12	mg/Kg	✱	01/26/22 10:18	01/27/22 04:29	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.116	U	1.96	0.116	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Arsenic	1.26	J	3.91	0.603	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Barium	198		3.91	0.339	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Beryllium	0.773	J	1.96	0.181	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Cadmium	<0.113	U	1.96	0.113	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Chromium	10.9		3.91	0.265	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Cobalt	4.49		1.96	0.112	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Lead	9.61		1.96	0.189	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Iron	10200		196	22.9	mg/Kg	✱	01/26/22 16:03	01/27/22 19:45	100
Manganese	347		1.96	0.249	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Nickel	8.72		1.96	0.144	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Selenium	<0.485	U	1.96	0.485	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Silver	<0.155	U	1.96	0.155	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Vanadium	15.9		1.96	0.196	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Zinc	17.0		3.91	0.433	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10
Uranium	0.762	J	0.978	0.0585	mg/Kg	✱	01/26/22 16:03	01/27/22 19:33	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00825	J	0.0223	0.00429	mg/Kg	✱	01/26/22 08:20	01/26/22 14:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0655	J	0.0669	0.0332	mg/Kg	✱	02/02/22 14:57	02/02/22 16:49	1

Client Sample ID: BI-15 (0-1)

Lab Sample ID: 860-19628-32

Date Collected: 01/20/22 10:05

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 76.6

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.4		13.0	4.60	mg/Kg	✱	01/26/22 10:18	01/27/22 04:41	1
Fluoride	11.5		6.50	1.30	mg/Kg	✱	01/26/22 10:18	01/27/22 04:41	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.144	U	2.42	0.144	mg/Kg	✱	01/26/22 16:03	01/27/22 19:39	10
Arsenic	1.41	J	4.84	0.746	mg/Kg	✱	01/26/22 16:03	01/27/22 19:39	10
Barium	198		4.84	0.419	mg/Kg	✱	01/26/22 16:03	01/27/22 19:39	10
Beryllium	1.06	J	2.42	0.224	mg/Kg	✱	01/26/22 16:03	01/27/22 19:39	10
Cadmium	<0.140	U	2.42	0.140	mg/Kg	✱	01/26/22 16:03	01/27/22 19:39	10
Chromium	18.4		4.84	0.328	mg/Kg	✱	01/26/22 16:03	01/27/22 19:39	10
Cobalt	6.66		2.42	0.138	mg/Kg	✱	01/26/22 16:03	01/27/22 19:39	10
Lead	10.6		2.42	0.234	mg/Kg	✱	01/26/22 16:03	01/27/22 19:39	10
Iron	15500		242	28.3	mg/Kg	✱	01/26/22 16:03	01/27/22 19:51	100
Manganese	359		2.42	0.308	mg/Kg	✱	01/26/22 16:03	01/27/22 19:39	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-15 (0-1)

Lab Sample ID: 860-19628-32

Date Collected: 01/20/22 10:05

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 76.6

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	14.2		2.42	0.177	mg/Kg	☆	01/26/22 16:03	01/27/22 19:39	10
Selenium	<0.600	U	2.42	0.600	mg/Kg	☆	01/26/22 16:03	01/27/22 19:39	10
Silver	<0.192	U	2.42	0.192	mg/Kg	☆	01/26/22 16:03	01/27/22 19:39	10
Vanadium	22.5		2.42	0.242	mg/Kg	☆	01/26/22 16:03	01/27/22 19:39	10
Zinc	24.3		4.84	0.535	mg/Kg	☆	01/26/22 16:03	01/27/22 19:39	10
Uranium	0.626	J	1.21	0.0723	mg/Kg	☆	01/26/22 16:03	01/27/22 19:39	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0127	J	0.0251	0.00483	mg/Kg	☆	01/26/22 08:20	01/26/22 14:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0736	J	0.0783	0.0389	mg/Kg	☆	02/02/22 14:57	02/02/22 16:50	1

Client Sample ID: BI-15 (5-6)

Lab Sample ID: 860-19628-33

Date Collected: 01/20/22 10:40

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 87.8

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	113		11.2	3.97	mg/Kg	☆	01/26/22 10:18	01/27/22 04:53	1
Fluoride	4.80	J	5.61	1.12	mg/Kg	☆	01/26/22 10:18	01/27/22 04:53	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.90		2.07	0.123	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Arsenic	2.06	J	4.14	0.639	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Barium	339	B	4.14	0.359	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Beryllium	1.43	J	2.07	0.192	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Cadmium	<0.120	U	2.07	0.120	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Chromium	25.3	F1	4.14	0.281	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Cobalt	8.57		2.07	0.119	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Lead	12.5		2.07	0.200	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Iron	24100		207	24.3	mg/Kg	☆	01/27/22 16:46	02/03/22 10:55	100
Manganese	493	B	2.07	0.264	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Nickel	18.7	F1	2.07	0.152	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Selenium	0.605	J	2.07	0.514	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Silver	<0.165	U	2.07	0.165	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Vanadium	34.9	F1	2.07	0.207	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Zinc	42.3	B	4.14	0.458	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10
Uranium	1.08		1.04	0.0619	mg/Kg	☆	01/27/22 16:46	02/02/22 20:19	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00634	J	0.0215	0.00413	mg/Kg	☆	01/26/22 08:20	01/26/22 14:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0541	J	0.0683	0.0339	mg/Kg	☆	02/02/22 14:57	02/02/22 16:57	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-13 (0-1)

Lab Sample ID: 860-19628-34

Date Collected: 01/20/22 10:50

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 77.9

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.8		12.7	4.49	mg/Kg	✱	01/26/22 10:18	01/27/22 05:04	1
Fluoride	8.84		6.34	1.27	mg/Kg	✱	01/26/22 10:18	01/27/22 05:04	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.357	J	2.42	0.144	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Arsenic	1.54	J	4.84	0.747	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Barium	284	B	4.84	0.420	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Beryllium	1.32	J	2.42	0.224	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Cadmium	<0.140	U	2.42	0.140	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Chromium	16.9		4.84	0.328	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Cobalt	6.85		2.42	0.139	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Lead	13.5		2.42	0.235	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Iron	18100		242	28.4	mg/Kg	✱	01/27/22 16:46	02/03/22 11:05	100
Manganese	412	B	2.42	0.308	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Nickel	13.8		2.42	0.178	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Selenium	<0.601	U	2.42	0.601	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Silver	<0.192	U	2.42	0.192	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Vanadium	20.3		2.42	0.242	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Zinc	28.0	B	4.84	0.536	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10
Uranium	0.903	J	1.21	0.0724	mg/Kg	✱	01/27/22 16:46	02/02/22 20:41	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0103	J	0.0238	0.00457	mg/Kg	✱	01/26/22 08:20	01/26/22 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0748	J	0.0770	0.0382	mg/Kg	✱	02/02/22 14:57	02/02/22 16:59	1

Client Sample ID: BI-13 (5-6)

Lab Sample ID: 860-19628-35

Date Collected: 01/20/22 11:45

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 86.3

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	255		11.4	4.04	mg/Kg	✱	01/26/22 10:18	01/27/22 05:16	1
Fluoride	7.56		5.70	1.14	mg/Kg	✱	01/26/22 10:18	01/27/22 05:16	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.293	J	2.23	0.133	mg/Kg	✱	01/27/22 16:46	02/02/22 20:44	10
Arsenic	1.55	J	4.46	0.687	mg/Kg	✱	01/27/22 16:46	02/02/22 20:44	10
Barium	287	B	4.46	0.386	mg/Kg	✱	01/27/22 16:46	02/02/22 20:44	10
Beryllium	1.30	J	2.23	0.206	mg/Kg	✱	01/27/22 16:46	02/02/22 20:44	10
Cadmium	<0.129	U	2.23	0.129	mg/Kg	✱	01/27/22 16:46	02/02/22 20:44	10
Chromium	13.8		4.46	0.302	mg/Kg	✱	01/27/22 16:46	02/02/22 20:44	10
Cobalt	6.25		2.23	0.128	mg/Kg	✱	01/27/22 16:46	02/02/22 20:44	10
Lead	13.0		2.23	0.216	mg/Kg	✱	01/27/22 16:46	02/02/22 20:44	10
Iron	16600		223	26.1	mg/Kg	✱	01/27/22 16:46	02/03/22 11:08	100
Manganese	396	B	2.23	0.284	mg/Kg	✱	01/27/22 16:46	02/02/22 20:44	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-13 (5-6)

Lab Sample ID: 860-19628-35

Date Collected: 01/20/22 11:45

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 86.3

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	12.9		2.23	0.164	mg/Kg	☆	01/27/22 16:46	02/02/22 20:44	10
Selenium	0.671	J	2.23	0.553	mg/Kg	☆	01/27/22 16:46	02/02/22 20:44	10
Silver	<0.177	U	2.23	0.177	mg/Kg	☆	01/27/22 16:46	02/02/22 20:44	10
Vanadium	17.9		2.23	0.223	mg/Kg	☆	01/27/22 16:46	02/02/22 20:44	10
Zinc	25.7	B	4.46	0.493	mg/Kg	☆	01/27/22 16:46	02/02/22 20:44	10
Uranium	0.965	J	1.11	0.0666	mg/Kg	☆	01/27/22 16:46	02/02/22 20:44	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00602	J	0.0223	0.00428	mg/Kg	☆	01/26/22 08:20	01/26/22 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0599	J	0.0695	0.0345	mg/Kg	☆	02/02/22 14:57	02/02/22 17:00	1

Client Sample ID: BI-12 (0-1)

Lab Sample ID: 860-19628-36

Date Collected: 01/20/22 11:50

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 74.5

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.2	J	13.2	4.69	mg/Kg	☆	01/26/22 10:18	01/27/22 05:28	1
Fluoride	6.09	J	6.62	1.32	mg/Kg	☆	01/26/22 10:18	01/27/22 05:28	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.268	J	2.53	0.151	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Arsenic	1.45	J	5.07	0.781	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Barium	213	B	5.07	0.439	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Beryllium	1.13	J	2.53	0.234	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Cadmium	<0.147	U	2.53	0.147	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Chromium	15.0		5.07	0.343	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Cobalt	6.53		2.53	0.145	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Lead	12.5		2.53	0.245	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Iron	15600		253	29.7	mg/Kg	☆	01/27/22 16:46	02/03/22 11:11	100
Manganese	404	B	2.53	0.322	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Nickel	13.1		2.53	0.186	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Selenium	<0.628	U	2.53	0.628	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Silver	<0.201	U	2.53	0.201	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Vanadium	19.5		2.53	0.253	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Zinc	26.5	B	5.07	0.560	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10
Uranium	0.778	J	1.27	0.0757	mg/Kg	☆	01/27/22 16:46	02/02/22 20:47	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00947	J	0.0263	0.00506	mg/Kg	☆	01/26/22 08:20	01/26/22 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0857		0.0805	0.0399	mg/Kg	☆	02/02/22 14:57	02/02/22 17:01	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-12 (5-6)

Lab Sample ID: 860-19628-37

Date Collected: 01/20/22 12:15

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 88.4

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	107		11.1	3.93	mg/Kg	✱	01/26/22 10:18	01/27/22 05:40	1
Fluoride	1.39	J	5.56	1.11	mg/Kg	✱	01/26/22 10:18	01/27/22 05:40	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.242	J	2.22	0.132	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Arsenic	1.66	J	4.44	0.684	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Barium	250	B	4.44	0.385	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Beryllium	1.04	J	2.22	0.205	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Cadmium	<0.129	U	2.22	0.129	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Chromium	17.9		4.44	0.301	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Cobalt	6.68		2.22	0.127	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Lead	10.9		2.22	0.215	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Iron	17700		222	26.0	mg/Kg	✱	01/27/22 16:46	02/03/22 11:14	100
Manganese	410	B	2.22	0.282	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Nickel	14.5		2.22	0.163	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Selenium	<0.550	U	2.22	0.550	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Silver	<0.176	U	2.22	0.176	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Vanadium	23.7		2.22	0.222	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Zinc	29.9	B	4.44	0.491	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10
Uranium	0.733	J	1.11	0.0663	mg/Kg	✱	01/27/22 16:46	02/02/22 20:51	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00679	J	0.0226	0.00435	mg/Kg	✱	01/26/22 08:20	01/26/22 14:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0472	J	0.0679	0.0337	mg/Kg	✱	02/02/22 14:57	02/02/22 17:03	1

Client Sample ID: BI-17 (0-1)

Lab Sample ID: 860-19628-38

Date Collected: 01/20/22 13:50

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 76.3

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.7		13.3	4.72	mg/Kg	✱	01/26/22 10:18	01/27/22 05:52	1
Fluoride	1.65	J	6.67	1.33	mg/Kg	✱	01/26/22 10:18	01/27/22 05:52	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.300	J	2.34	0.139	mg/Kg	✱	01/27/22 16:46	02/02/22 20:54	10
Arsenic	1.75	J	4.68	0.722	mg/Kg	✱	01/27/22 16:46	02/02/22 20:54	10
Barium	288	B	4.68	0.406	mg/Kg	✱	01/27/22 16:46	02/02/22 20:54	10
Beryllium	0.981	J	2.34	0.217	mg/Kg	✱	01/27/22 16:46	02/02/22 20:54	10
Cadmium	0.142	J	2.34	0.136	mg/Kg	✱	01/27/22 16:46	02/02/22 20:54	10
Chromium	13.5		4.68	0.317	mg/Kg	✱	01/27/22 16:46	02/02/22 20:54	10
Cobalt	5.58		2.34	0.134	mg/Kg	✱	01/27/22 16:46	02/02/22 20:54	10
Lead	13.4		2.34	0.227	mg/Kg	✱	01/27/22 16:46	02/02/22 20:54	10
Iron	14100		234	27.4	mg/Kg	✱	01/27/22 16:46	02/03/22 11:17	100
Manganese	704	B	2.34	0.298	mg/Kg	✱	01/27/22 16:46	02/02/22 20:54	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-17 (0-1)

Lab Sample ID: 860-19628-38

Date Collected: 01/20/22 13:50

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 76.3

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	10.5		2.34	0.172	mg/Kg	☆	01/27/22 16:46	02/02/22 20:54	10
Selenium	<0.581	U	2.34	0.581	mg/Kg	☆	01/27/22 16:46	02/02/22 20:54	10
Silver	<0.186	U	2.34	0.186	mg/Kg	☆	01/27/22 16:46	02/02/22 20:54	10
Vanadium	17.1		2.34	0.234	mg/Kg	☆	01/27/22 16:46	02/02/22 20:54	10
Zinc	45.7	B	4.68	0.518	mg/Kg	☆	01/27/22 16:46	02/02/22 20:54	10
Uranium	0.435	J	1.17	0.0700	mg/Kg	☆	01/27/22 16:46	02/02/22 20:54	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0201	J	0.0230	0.00442	mg/Kg	☆	01/26/22 08:20	01/26/22 14:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.201		0.0786	0.0390	mg/Kg	☆	02/02/22 14:57	02/02/22 17:04	1

Client Sample ID: BI-17 (5-6)

Lab Sample ID: 860-19628-39

Date Collected: 01/20/22 14:10

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 90.7

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	178		11.0	3.89	mg/Kg	☆	01/26/22 10:18	01/27/22 06:04	1
Fluoride	2.50	J	5.49	1.10	mg/Kg	☆	01/26/22 10:18	01/27/22 06:04	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.156	J	2.21	0.131	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Arsenic	1.31	J	4.41	0.680	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Barium	328	B	4.41	0.383	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Beryllium	0.709	J	2.21	0.204	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Cadmium	<0.128	U	2.21	0.128	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Chromium	8.56		4.41	0.299	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Cobalt	4.25		2.21	0.126	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Lead	7.59		2.21	0.214	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Iron	10200		22.1	2.59	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Manganese	584	B	2.21	0.281	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Nickel	7.01		2.21	0.162	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Selenium	<0.547	U	2.21	0.547	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Silver	<0.175	U	2.21	0.175	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Vanadium	16.2		2.21	0.221	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Zinc	22.5	B	4.41	0.488	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10
Uranium	0.370	J	1.10	0.0659	mg/Kg	☆	01/27/22 16:46	02/02/22 20:57	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00753	J	0.0212	0.00408	mg/Kg	☆	01/26/22 08:20	01/26/22 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0650	J	0.0662	0.0328	mg/Kg	☆	02/02/22 14:57	02/02/22 17:06	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-18 (0-1)

Lab Sample ID: 860-19628-40

Date Collected: 01/20/22 14:25

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 70.9

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.8	J	14.2	5.02	mg/Kg	✱	01/26/22 10:18	01/27/22 07:15	1
Fluoride	2.18	J	7.09	1.42	mg/Kg	✱	01/26/22 10:18	01/27/22 07:15	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.330	J	2.77	0.165	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Arsenic	2.12	J	5.53	0.853	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Barium	286	B	5.53	0.480	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Beryllium	1.05	J	2.77	0.256	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Cadmium	<0.160	U	2.77	0.160	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Chromium	15.0		5.53	0.375	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Cobalt	5.95		2.77	0.158	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Lead	11.4		2.77	0.268	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Iron	15300		277	32.4	mg/Kg	✱	01/27/22 16:46	02/03/22 11:20	100
Manganese	693	B	2.77	0.352	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Nickel	10.9		2.77	0.203	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Selenium	<0.686	U	2.77	0.686	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Silver	<0.220	U	2.77	0.220	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Vanadium	21.2		2.77	0.277	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Zinc	39.5	B	5.53	0.612	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10
Uranium	0.419	J	1.38	0.0827	mg/Kg	✱	01/27/22 16:46	02/02/22 21:00	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0168	J	0.0282	0.00542	mg/Kg	✱	01/26/22 08:20	01/26/22 14:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.143		0.0846	0.0420	mg/Kg	✱	02/02/22 14:57	02/02/22 17:07	1

Client Sample ID: BI-18 (5-6)

Lab Sample ID: 860-19628-41

Date Collected: 01/20/22 14:40

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 85.8

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	213		11.5	4.08	mg/Kg	✱	01/26/22 10:18	01/27/22 07:27	1
Fluoride	1.60	J	5.76	1.15	mg/Kg	✱	01/26/22 10:18	01/27/22 07:27	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.215	J	2.29	0.136	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10
Arsenic	1.54	J	4.57	0.705	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10
Barium	222	B	4.57	0.396	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10
Beryllium	0.930	J	2.29	0.211	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10
Cadmium	<0.133	U	2.29	0.133	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10
Chromium	7.63		4.57	0.310	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10
Cobalt	4.45		2.29	0.131	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10
Lead	10.9		2.29	0.221	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10
Iron	11100		22.9	2.68	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10
Manganese	784	B	2.29	0.291	mg/Kg	✱	01/27/22 16:46	02/02/22 21:03	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-18 (5-6)

Lab Sample ID: 860-19628-41

Date Collected: 01/20/22 14:40

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 85.8

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	7.48		2.29	0.168	mg/Kg	☆	01/27/22 16:46	02/02/22 21:03	10
Selenium	<0.567	U	2.29	0.567	mg/Kg	☆	01/27/22 16:46	02/02/22 21:03	10
Silver	<0.182	U	2.29	0.182	mg/Kg	☆	01/27/22 16:46	02/02/22 21:03	10
Vanadium	12.7		2.29	0.228	mg/Kg	☆	01/27/22 16:46	02/02/22 21:03	10
Zinc	26.6	B	4.57	0.506	mg/Kg	☆	01/27/22 16:46	02/02/22 21:03	10
Uranium	0.373	J	1.14	0.0683	mg/Kg	☆	01/27/22 16:46	02/02/22 21:03	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00885	J	0.0216	0.00415	mg/Kg	☆	01/26/22 08:20	01/26/22 14:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.106		0.0699	0.0347	mg/Kg	☆	02/02/22 14:57	02/02/22 17:08	1

Client Sample ID: BI-19 (0-1)

Lab Sample ID: 860-19628-42

Date Collected: 01/20/22 14:45

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 80.2

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.1	J	12.5	4.43	mg/Kg	☆	01/26/22 10:18	01/27/22 08:03	1
Fluoride	1.77	J	6.26	1.25	mg/Kg	☆	01/26/22 10:18	01/27/22 08:03	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.214	J	2.27	0.135	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Arsenic	1.85	J	4.53	0.699	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Barium	325	B	4.53	0.393	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Beryllium	0.995	J	2.27	0.210	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Cadmium	<0.131	U	2.27	0.131	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Chromium	13.9		4.53	0.307	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Cobalt	5.49		2.27	0.130	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Lead	10.9		2.27	0.219	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Iron	14500		227	26.6	mg/Kg	☆	01/27/22 16:46	02/03/22 11:23	100
Manganese	665	B	2.27	0.289	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Nickel	10.4		2.27	0.166	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Selenium	<0.562	U	2.27	0.562	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Silver	<0.180	U	2.27	0.180	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Vanadium	19.0		2.27	0.227	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Zinc	33.7	B	4.53	0.502	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10
Uranium	0.441	J	1.13	0.0678	mg/Kg	☆	01/27/22 16:46	02/02/22 21:06	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0127	J	0.0231	0.00444	mg/Kg	☆	01/26/22 08:20	01/26/22 14:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.124		0.0748	0.0371	mg/Kg	☆	02/02/22 14:57	02/02/22 17:17	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-19 (5-6)

Lab Sample ID: 860-19628-43

Date Collected: 01/20/22 15:20

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 87.8

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	298		11.6	4.09	mg/Kg	✱	01/26/22 10:18	01/27/22 08:14	1
Fluoride	1.17	J	5.78	1.16	mg/Kg	✱	01/26/22 10:18	01/27/22 08:14	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.225	J	2.19	0.130	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Arsenic	1.68	J	4.38	0.676	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Barium	400	B	4.38	0.380	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Beryllium	0.979	J	2.19	0.203	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Cadmium	0.137	J	2.19	0.127	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Chromium	12.7		4.38	0.297	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Cobalt	5.16		2.19	0.125	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Lead	11.0		2.19	0.212	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Iron	14000		219	25.7	mg/Kg	✱	01/27/22 16:46	02/03/22 11:33	100
Manganese	687	B	2.19	0.279	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Nickel	10.3		2.19	0.161	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Selenium	<0.543	U	2.19	0.543	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Silver	<0.174	U	2.19	0.174	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Vanadium	16.3		2.19	0.219	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Zinc	31.2	B	4.38	0.485	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10
Uranium	0.421	J	1.10	0.0655	mg/Kg	✱	01/27/22 16:46	02/02/22 21:09	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0101	J	0.0203	0.00391	mg/Kg	✱	01/26/22 08:20	01/26/22 14:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.115		0.0683	0.0339	mg/Kg	✱	02/02/22 14:57	02/02/22 17:21	1

Client Sample ID: BI-20 (0-1)

Lab Sample ID: 860-19628-44

Date Collected: 01/20/22 15:30

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 80.6

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.0		12.6	4.45	mg/Kg	✱	01/26/22 10:18	01/27/22 08:26	1
Fluoride	4.38	J	6.28	1.26	mg/Kg	✱	01/26/22 10:18	01/27/22 08:26	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.204	J	2.18	0.130	mg/Kg	✱	01/27/22 16:46	02/02/22 21:19	10
Arsenic	1.96	J	4.35	0.671	mg/Kg	✱	01/27/22 16:46	02/02/22 21:19	10
Barium	306	B	4.35	0.378	mg/Kg	✱	01/27/22 16:46	02/02/22 21:19	10
Beryllium	1.04	J	2.18	0.201	mg/Kg	✱	01/27/22 16:46	02/02/22 21:19	10
Cadmium	<0.126	U	2.18	0.126	mg/Kg	✱	01/27/22 16:46	02/02/22 21:19	10
Chromium	14.2		4.35	0.295	mg/Kg	✱	01/27/22 16:46	02/02/22 21:19	10
Cobalt	5.75		2.18	0.125	mg/Kg	✱	01/27/22 16:46	02/02/22 21:19	10
Lead	11.0		2.18	0.211	mg/Kg	✱	01/27/22 16:46	02/02/22 21:19	10
Iron	15500		218	25.5	mg/Kg	✱	01/27/22 16:46	02/03/22 11:36	100
Manganese	732	B	2.18	0.277	mg/Kg	✱	01/27/22 16:46	02/02/22 21:19	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-20 (0-1)

Lab Sample ID: 860-19628-44

Date Collected: 01/20/22 15:30

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 80.6

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	10.8		2.18	0.160	mg/Kg	☆	01/27/22 16:46	02/02/22 21:19	10
Selenium	0.544	J	2.18	0.540	mg/Kg	☆	01/27/22 16:46	02/02/22 21:19	10
Silver	<0.173	U	2.18	0.173	mg/Kg	☆	01/27/22 16:46	02/02/22 21:19	10
Vanadium	19.5		2.18	0.218	mg/Kg	☆	01/27/22 16:46	02/02/22 21:19	10
Zinc	36.5	B	4.35	0.482	mg/Kg	☆	01/27/22 16:46	02/02/22 21:19	10
Uranium	0.435	J	1.09	0.0651	mg/Kg	☆	01/27/22 16:46	02/02/22 21:19	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0144	J	0.0234	0.00450	mg/Kg	☆	01/26/22 08:20	01/26/22 14:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.133		0.0744	0.0369	mg/Kg	☆	02/02/22 14:57	02/02/22 17:23	1

Client Sample ID: BI-20 (5-6)

Lab Sample ID: 860-19628-45

Date Collected: 01/20/22 15:45

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 87.4

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	232		11.5	4.08	mg/Kg	☆	01/26/22 10:18	01/27/22 09:02	1
Fluoride	11.1		5.77	1.15	mg/Kg	☆	01/26/22 10:18	01/27/22 09:02	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.126	U	2.12	0.126	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Arsenic	2.31	J	4.24	0.654	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Barium	182	B	4.24	0.367	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Beryllium	1.06	J	2.12	0.196	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Cadmium	<0.123	U	2.12	0.123	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Chromium	12.2		4.24	0.287	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Cobalt	4.73		2.12	0.121	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Lead	21.0		2.12	0.205	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Iron	8480		21.2	2.48	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Manganese	711	B	2.12	0.270	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Nickel	11.8		2.12	0.156	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Selenium	<0.526	U	2.12	0.526	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Silver	<0.168	U	2.12	0.168	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Vanadium	2840		21.2	2.12	mg/Kg	☆	01/27/22 16:46	02/03/22 11:39	100
Zinc	20.2	B	4.24	0.469	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10
Uranium	2.88		1.06	0.0633	mg/Kg	☆	01/27/22 16:46	02/02/22 21:22	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00682	J	0.0220	0.00423	mg/Kg	☆	01/26/22 08:20	01/26/22 14:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0380	J	0.0686	0.0341	mg/Kg	☆	02/02/22 14:57	02/02/22 17:24	1

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-21 (0-1)

Lab Sample ID: 860-19628-46

Date Collected: 01/20/22 15:55

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 76.9

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	749		13.2	4.68	mg/Kg	✱	01/26/22 10:18	01/27/22 09:14	1
Fluoride	<1.32	U	6.61	1.32	mg/Kg	✱	01/26/22 10:18	01/27/22 09:14	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.275	J	2.45	0.146	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Arsenic	2.34	J	4.91	0.757	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Barium	422	B	4.91	0.426	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Beryllium	1.20	J	2.45	0.227	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Cadmium	0.167	J	2.45	0.142	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Chromium	18.4		4.91	0.333	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Cobalt	6.17		2.45	0.141	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Lead	13.2		2.45	0.238	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Iron	17900		245	28.8	mg/Kg	✱	01/27/22 16:46	02/03/22 11:42	100
Manganese	725	B	2.45	0.312	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Nickel	12.8		2.45	0.180	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Selenium	0.654	J	2.45	0.609	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Silver	<0.195	U	2.45	0.195	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Vanadium	25.1		2.45	0.245	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Zinc	42.7	B	4.91	0.543	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10
Uranium	0.499	J	1.23	0.0733	mg/Kg	✱	01/27/22 16:46	02/02/22 21:25	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0145	J	0.0245	0.00472	mg/Kg	✱	01/27/22 08:50	01/27/22 13:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.202		0.0780	0.0387	mg/Kg	✱	02/02/22 14:57	02/02/22 17:25	1

Client Sample ID: BI-21 (5-6)

Lab Sample ID: 860-19628-47

Date Collected: 01/20/22 16:15

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 78.9

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	109		12.8	4.51	mg/Kg	✱	01/26/22 10:18	01/27/22 09:26	1
Fluoride	<1.28	U	6.38	1.28	mg/Kg	✱	01/26/22 10:18	01/27/22 09:26	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.153	J	2.49	0.148	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10
Arsenic	1.33	J	4.97	0.767	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10
Barium	309	B	4.97	0.431	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10
Beryllium	0.882	J	2.49	0.230	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10
Cadmium	<0.144	U	2.49	0.144	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10
Chromium	10.2		4.97	0.337	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10
Cobalt	5.70		2.49	0.142	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10
Lead	9.95		2.49	0.241	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10
Iron	12100		24.9	2.91	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10
Manganese	800	B	2.49	0.316	mg/Kg	✱	01/27/22 16:46	02/02/22 21:28	10

Eurofins Houston

Client Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-21 (5-6)

Lab Sample ID: 860-19628-47

Date Collected: 01/20/22 16:15

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 78.9

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	8.92		2.49	0.182	mg/Kg	☆	01/27/22 16:46	02/02/22 21:28	10
Selenium	<0.617	U	2.49	0.617	mg/Kg	☆	01/27/22 16:46	02/02/22 21:28	10
Silver	<0.197	U	2.49	0.197	mg/Kg	☆	01/27/22 16:46	02/02/22 21:28	10
Vanadium	13.7		2.49	0.248	mg/Kg	☆	01/27/22 16:46	02/02/22 21:28	10
Zinc	31.2	B	4.97	0.550	mg/Kg	☆	01/27/22 16:46	02/02/22 21:28	10
Uranium	0.446	J	1.24	0.0743	mg/Kg	☆	01/27/22 16:46	02/02/22 21:28	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00634	J	0.0235	0.00451	mg/Kg	☆	01/27/22 08:50	01/27/22 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.133		0.0760	0.0377	mg/Kg	☆	02/02/22 14:57	02/02/22 17:30	1

Client Sample ID: DUP-1-20-22

Lab Sample ID: 860-19628-48

Date Collected: 01/20/22 00:00

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 75.6

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.5		13.4	4.76	mg/Kg	☆	01/26/22 10:18	01/27/22 09:38	1
Fluoride	<1.34	U	6.72	1.34	mg/Kg	☆	01/26/22 10:18	01/27/22 09:38	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.351	J	2.36	0.141	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Arsenic	2.16	J	4.72	0.729	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Barium	343	B	4.72	0.410	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Beryllium	1.30	J	2.36	0.219	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Cadmium	0.162	J	2.36	0.137	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Chromium	20.7		4.72	0.320	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Cobalt	7.46		2.36	0.135	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Lead	15.5		2.36	0.229	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Iron	20200		236	27.7	mg/Kg	☆	01/27/22 16:46	02/03/22 11:45	100
Manganese	899	B	2.36	0.301	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Nickel	14.3		2.36	0.173	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Selenium	0.658	J	2.36	0.586	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Silver	<0.188	U	2.36	0.188	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Vanadium	27.3		2.36	0.236	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Zinc	49.4	B	4.72	0.523	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10
Uranium	0.534	J	1.18	0.0706	mg/Kg	☆	01/27/22 16:46	02/02/22 21:31	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0145	J	0.0254	0.00489	mg/Kg	☆	01/27/22 08:50	01/27/22 13:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.179		0.0794	0.0394	mg/Kg	☆	02/02/22 14:57	02/02/22 17:31	1

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 860-38740/3

Matrix: Water

Analysis Batch: 38740

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.200	U	0.500	0.200	mg/L			01/25/22 09:10	1
Fluoride	<0.100	U	0.500	0.100	mg/L			01/25/22 09:10	1

Lab Sample ID: MB 860-38740/66

Matrix: Water

Analysis Batch: 38740

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.200	U	0.500	0.200	mg/L			01/25/22 22:26	1
Fluoride	<0.100	U	0.500	0.100	mg/L			01/25/22 22:26	1

Lab Sample ID: LCS 860-38740/4

Matrix: Water

Analysis Batch: 38740

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.62		mg/L		106	90 - 110
Fluoride	10.0	10.62		mg/L		106	90 - 110

Lab Sample ID: LCS 860-38740/67

Matrix: Water

Analysis Batch: 38740

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.949		mg/L		99	90 - 110
Fluoride	10.0	10.15		mg/L		102	90 - 110

Lab Sample ID: LCSD 860-38740/5

Matrix: Water

Analysis Batch: 38740

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	10.79		mg/L		108	90 - 110	2	20
Fluoride	10.0	10.54		mg/L		105	90 - 110	1	20

Lab Sample ID: LCSD 860-38740/68

Matrix: Water

Analysis Batch: 38740

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.965		mg/L		100	90 - 110	0	20
Fluoride	10.0	10.17		mg/L		102	90 - 110	0	20

Lab Sample ID: 860-19628-2 MS

Matrix: Water

Analysis Batch: 38740

Client Sample ID: EB-01-18-22

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	0.598	F1	10.0	8.278	F1	mg/L		77	90 - 110
Fluoride	<0.100	U F1	10.0	8.732	F1	mg/L		87	90 - 110

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 860-19628-2 MSD

Matrix: Water

Analysis Batch: 38740

Client Sample ID: EB-01-18-22

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	0.598	F1	10.0	8.278	F1	mg/L		77	90 - 110	0	20
Fluoride	<0.100	U F1	10.0	8.738	F1	mg/L		87	90 - 110	0	20

Lab Sample ID: 860-19628-27 MS

Matrix: Water

Analysis Batch: 38740

Client Sample ID: EB-1-20-22

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.200	U	10.0	9.141		mg/L		91	90 - 110		
Fluoride	<0.100	U	10.0	9.465		mg/L		95	90 - 110		

Lab Sample ID: 860-19628-27 MSD

Matrix: Water

Analysis Batch: 38740

Client Sample ID: EB-1-20-22

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.200	U	10.0	9.147		mg/L		91	90 - 110	0	20
Fluoride	<0.100	U	10.0	9.523		mg/L		95	90 - 110	1	20

Lab Sample ID: MB 860-39027/1-A

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<3.54	U	10.0	3.54	mg/Kg		01/26/22 10:18	01/26/22 18:46	1
Fluoride	<1.00	U	5.00	1.00	mg/Kg		01/26/22 10:18	01/26/22 18:46	1

Lab Sample ID: MB 860-39027/28-A

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<3.54	U	10.0	3.54	mg/Kg		01/26/22 10:18	01/26/22 23:31	1
Fluoride	<1.00	U	5.00	1.00	mg/Kg		01/26/22 10:18	01/26/22 23:31	1

Lab Sample ID: MB 860-39027/57-A

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<3.54	U	10.0	3.54	mg/Kg		01/26/22 10:18	01/27/22 06:39	1
Fluoride	<1.00	U	5.00	1.00	mg/Kg		01/26/22 10:18	01/27/22 06:39	1

Lab Sample ID: LCS 860-39027/29-A

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	103.5		mg/Kg		104	80 - 120		
Fluoride	100	101.0		mg/Kg		101	80 - 120		

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCS 860-39027/2-A

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	105.4		mg/Kg		105	80 - 120
Fluoride	100	107.2		mg/Kg		107	80 - 120

Lab Sample ID: LCS 860-39027/58-A

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	103.2		mg/Kg		103	80 - 120
Fluoride	100	100.1		mg/Kg		100	80 - 120

Lab Sample ID: LCSD 860-39027/30-A

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	99.13		mg/Kg		99	80 - 120	4	20
Fluoride	100	97.53		mg/Kg		98	80 - 120	3	20

Lab Sample ID: LCSD 860-39027/3-A

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	103.9		mg/Kg		104	80 - 120	0	20
Fluoride	100	101.5		mg/Kg		101	80 - 120	0	20

Lab Sample ID: LCSD 860-39027/59-A

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	99.30		mg/Kg		99	80 - 120	4	20
Fluoride	100	97.49		mg/Kg		97	80 - 120	3	20

Lab Sample ID: 860-19628-4 MS

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-1 (5-6)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	351		110	467.7		mg/Kg	✱	106	80 - 120
Fluoride	23.0		110	133.8		mg/Kg	✱	101	80 - 120

Lab Sample ID: 860-19628-4 MSD

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-1 (5-6)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	351		110	467.9		mg/Kg	✱	106	80 - 120	0	20
Fluoride	23.0		110	133.9		mg/Kg	✱	101	80 - 120	0	20

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 860-19628-5 MS

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-2 (0-1)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.39	J	115	124.1		mg/Kg	☼	102	80 - 120
Fluoride	1.99	J	115	116.8		mg/Kg	☼	100	80 - 120

Lab Sample ID: 860-19628-5 MSD

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-2 (0-1)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6.39	J	112	120.1		mg/Kg	☼	101	80 - 120	3	20
Fluoride	1.99	J	112	113.0		mg/Kg	☼	99	80 - 120	3	20

Lab Sample ID: 860-19628-23 MS

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-11 (0-1)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	12.9		127	131.1		mg/Kg	☼	93	80 - 120
Fluoride	5.03	J	127	128.7		mg/Kg	☼	97	80 - 120

Lab Sample ID: 860-19628-23 MSD

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-11 (0-1)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12.9		127	131.9		mg/Kg	☼	93	80 - 120	1	20
Fluoride	5.03	J	127	129.5		mg/Kg	☼	98	80 - 120	1	20

Lab Sample ID: 860-19628-28 MS

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-14 (0-1)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.2	J	125	136.4		mg/Kg	☼	101	80 - 120
Fluoride	3.40	J	125	128.4		mg/Kg	☼	100	80 - 120

Lab Sample ID: 860-19628-28 MSD

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-14 (0-1)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.2	J	125	135.7		mg/Kg	☼	100	80 - 120	1	20
Fluoride	3.40	J	125	128.8		mg/Kg	☼	100	80 - 120	0	20

Lab Sample ID: 860-19628-41 MS

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-18 (5-6)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	213		116	326.5		mg/Kg	☼	98	80 - 120
Fluoride	1.60	J	116	110.2		mg/Kg	☼	94	80 - 120

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 860-19628-41 MSD

Matrix: Solid

Analysis Batch: 38814

Client Sample ID: BI-18 (5-6)

Prep Type: Total/NA

Prep Batch: 39027

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	213		118	331.6		mg/Kg	☼	101	80 - 120	2	20
Fluoride	1.60	J	118	112.7		mg/Kg	☼	94	80 - 120	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 860-38889/1-A

Matrix: Water

Analysis Batch: 39033

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38889

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.000240	U	0.00200	0.000240	mg/L		01/26/22 08:30	01/26/22 17:02	1
Arsenic	<0.000246	U	0.00400	0.000246	mg/L		01/26/22 08:30	01/26/22 17:02	1
Barium	<0.000484	U	0.00400	0.000484	mg/L		01/26/22 08:30	01/26/22 17:02	1
Beryllium	<0.000131	U	0.00200	0.000131	mg/L		01/26/22 08:30	01/26/22 17:02	1
Cadmium	<0.000147	U	0.00200	0.000147	mg/L		01/26/22 08:30	01/26/22 17:02	1
Chromium	<0.000525	U	0.00400	0.000525	mg/L		01/26/22 08:30	01/26/22 17:02	1
Cobalt	<0.0000699	U	0.00200	0.0000699	mg/L		01/26/22 08:30	01/26/22 17:02	1
Iron	<0.0227	U	0.100	0.0227	mg/L		01/26/22 08:30	01/26/22 17:02	1
Lead	<0.000152	U	0.00200	0.000152	mg/L		01/26/22 08:30	01/26/22 17:02	1
Manganese	0.0002000	J	0.00200	0.000199	mg/L		01/26/22 08:30	01/26/22 17:02	1
Nickel	<0.000292	U	0.00200	0.000292	mg/L		01/26/22 08:30	01/26/22 17:02	1
Selenium	<0.000454	U	0.00200	0.000454	mg/L		01/26/22 08:30	01/26/22 17:02	1
Silver	<0.000251	U	0.00200	0.000251	mg/L		01/26/22 08:30	01/26/22 17:02	1
Vanadium	<0.000164	U	0.00200	0.000164	mg/L		01/26/22 08:30	01/26/22 17:02	1
Uranium	<0.000211	U	0.00100	0.000211	mg/L		01/26/22 08:30	01/26/22 17:02	1
Zinc	0.001865	J	0.00400	0.000802	mg/L		01/26/22 08:30	01/26/22 17:02	1

Lab Sample ID: LCS 860-38889/2-A

Matrix: Water

Analysis Batch: 39033

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38889

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.100	0.09359		mg/L		94	80 - 120
Arsenic	0.100	0.1003		mg/L		100	80 - 120
Barium	0.100	0.09667		mg/L		97	80 - 120
Beryllium	0.100	0.1001		mg/L		100	80 - 120
Cadmium	0.100	0.1003		mg/L		100	80 - 120
Chromium	0.100	0.1003		mg/L		100	80 - 120
Cobalt	0.100	0.09835		mg/L		98	80 - 120
Iron	0.500	0.4978		mg/L		100	80 - 120
Lead	0.100	0.09635		mg/L		96	80 - 120
Manganese	0.100	0.09994		mg/L		100	80 - 120
Nickel	0.100	0.09857		mg/L		99	80 - 120
Selenium	0.100	0.1002		mg/L		100	80 - 120
Silver	0.0500	0.04813		mg/L		96	80 - 120
Vanadium	0.100	0.1004		mg/L		100	80 - 120
Uranium	0.0250	0.02366		mg/L		95	80 - 120
Zinc	0.100	0.1031		mg/L		103	80 - 120

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 860-38889/3-A

Matrix: Water

Analysis Batch: 39033

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38889

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits			
Antimony	0.100	0.09755		mg/L		98	80 - 120		4	20
Arsenic	0.100	0.1016		mg/L		102	80 - 120		1	20
Barium	0.100	0.09828		mg/L		98	80 - 120		2	20
Beryllium	0.100	0.1004		mg/L		100	80 - 120		0	20
Cadmium	0.100	0.09892		mg/L		99	80 - 120		1	20
Chromium	0.100	0.09981		mg/L		100	80 - 120		0	20
Cobalt	0.100	0.1000		mg/L		100	80 - 120		2	20
Iron	0.500	0.4982		mg/L		100	80 - 120		0	20
Lead	0.100	0.09679		mg/L		97	80 - 120		0	20
Manganese	0.100	0.1004		mg/L		100	80 - 120		1	20
Nickel	0.100	0.1001		mg/L		100	80 - 120		2	20
Selenium	0.100	0.1020		mg/L		102	80 - 120		2	20
Silver	0.0500	0.04738		mg/L		95	80 - 120		2	20
Vanadium	0.100	0.1003		mg/L		100	80 - 120		0	20
Uranium	0.0250	0.02354		mg/L		94	80 - 120		1	20
Zinc	0.100	0.1036		mg/L		104	80 - 120		0	20

Lab Sample ID: MB 860-38954/1-A

Matrix: Solid

Analysis Batch: 39063

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38954

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0117	U	0.196	0.0117	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Arsenic	<0.0605	U	0.392	0.0605	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Barium	<0.0340	U	0.392	0.0340	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Beryllium	<0.0181	U	0.196	0.0181	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Cadmium	<0.0114	U	0.196	0.0114	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Chromium	<0.0266	U	0.392	0.0266	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Cobalt	<0.0112	U	0.196	0.0112	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Iron	<0.230	U	1.96	0.230	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Lead	<0.0190	U	0.196	0.0190	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Manganese	<0.0250	U	0.196	0.0250	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Nickel	<0.0144	U	0.196	0.0144	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Selenium	<0.0486	U	0.196	0.0486	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Silver	<0.0156	U	0.196	0.0156	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Vanadium	<0.0196	U	0.196	0.0196	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Uranium	<0.00586	U	0.0980	0.00586	mg/Kg		01/26/22 12:05	01/26/22 19:41	1
Zinc	<0.0434	U	0.392	0.0434	mg/Kg		01/26/22 12:05	01/26/22 19:41	1

Lab Sample ID: LCS 860-38954/2-A

Matrix: Solid

Analysis Batch: 39063

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Antimony	9.80	9.052		mg/Kg		92	80 - 120	
Arsenic	9.80	9.763		mg/Kg		100	80 - 120	
Barium	9.80	9.441		mg/Kg		96	80 - 120	
Beryllium	9.80	9.741		mg/Kg		99	80 - 120	
Cadmium	9.80	9.648		mg/Kg		98	80 - 120	

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 860-38954/2-A

Matrix: Solid

Analysis Batch: 39063

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38954

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	
	Added	Result	Qualifier				Limits	
Chromium	9.80	9.572		mg/Kg		98	80 - 120	
Cobalt	9.80	9.536		mg/Kg		97	80 - 120	
Iron	49.0	47.81		mg/Kg		98	80 - 120	
Lead	9.80	9.306		mg/Kg		95	80 - 120	
Manganese	9.80	9.840		mg/Kg		100	80 - 120	
Nickel	9.80	9.576		mg/Kg		98	80 - 120	
Selenium	9.80	9.915		mg/Kg		101	80 - 120	
Silver	4.90	4.579		mg/Kg		93	80 - 120	
Vanadium	9.80	9.632		mg/Kg		98	80 - 120	
Uranium	2.45	2.252		mg/Kg		92	80 - 120	
Zinc	9.80	9.732		mg/Kg		99	80 - 120	

Lab Sample ID: LCSD 860-38954/3-A

Matrix: Solid

Analysis Batch: 39063

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38954

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Added	Result	Qualifier				Limits			
Antimony	10.0	9.800		mg/Kg		98	80 - 120	8	20	
Arsenic	10.0	10.02		mg/Kg		100	80 - 120	3	20	
Barium	10.0	9.632		mg/Kg		96	80 - 120	2	20	
Beryllium	10.0	9.480		mg/Kg		95	80 - 120	3	20	
Cadmium	10.0	9.896		mg/Kg		99	80 - 120	3	20	
Chromium	10.0	9.795		mg/Kg		98	80 - 120	2	20	
Cobalt	10.0	9.843		mg/Kg		98	80 - 120	3	20	
Iron	50.0	49.43		mg/Kg		99	80 - 120	3	20	
Lead	10.0	9.524		mg/Kg		95	80 - 120	2	20	
Manganese	10.0	10.03		mg/Kg		100	80 - 120	2	20	
Nickel	10.0	9.825		mg/Kg		98	80 - 120	3	20	
Selenium	10.0	10.11		mg/Kg		101	80 - 120	2	20	
Silver	5.00	4.775		mg/Kg		96	80 - 120	4	20	
Vanadium	10.0	9.852		mg/Kg		99	80 - 120	2	20	
Uranium	2.50	2.286		mg/Kg		91	80 - 120	1	20	
Zinc	10.0	10.27		mg/Kg		103	80 - 120	5	20	

Lab Sample ID: MB 860-39003/1-A

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39003

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	<0.0117	U	0.196	0.0117	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Arsenic	<0.0605	U	0.392	0.0605	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Barium	<0.0340	U	0.392	0.0340	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Beryllium	<0.0181	U	0.196	0.0181	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Cadmium	<0.0114	U	0.196	0.0114	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Chromium	<0.0266	U	0.392	0.0266	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Cobalt	<0.0112	U	0.196	0.0112	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Iron	<0.230	U	1.96	0.230	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Lead	<0.0190	U	0.196	0.0190	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Manganese	<0.0250	U	0.196	0.0250	mg/Kg		01/26/22 16:03	01/27/22 17:00	1

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 860-39003/1-A

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39003

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.0144	U	0.196	0.0144	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Selenium	<0.0486	U	0.196	0.0486	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Silver	<0.0156	U	0.196	0.0156	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Vanadium	<0.0196	U	0.196	0.0196	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Uranium	<0.00586	U	0.0980	0.00586	mg/Kg		01/26/22 16:03	01/27/22 17:00	1
Zinc	<0.0434	U	0.392	0.0434	mg/Kg		01/26/22 16:03	01/27/22 17:00	1

Lab Sample ID: LCS 860-39003/2-A

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39003

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	9.80	9.866		mg/Kg		101	80 - 120
Arsenic	9.80	9.028		mg/Kg		92	80 - 120
Barium	9.80	8.855		mg/Kg		90	80 - 120
Beryllium	9.80	10.30		mg/Kg		105	80 - 120
Cadmium	9.80	9.886		mg/Kg		101	80 - 120
Chromium	9.80	10.04		mg/Kg		102	80 - 120
Cobalt	9.80	10.08		mg/Kg		103	80 - 120
Iron	49.0	49.48		mg/Kg		101	80 - 120
Lead	9.80	9.681		mg/Kg		99	80 - 120
Manganese	9.80	9.869		mg/Kg		101	80 - 120
Nickel	9.80	10.28		mg/Kg		105	80 - 120
Selenium	9.80	8.884		mg/Kg		91	80 - 120
Silver	4.90	4.997		mg/Kg		102	80 - 120
Vanadium	9.80	9.935		mg/Kg		101	80 - 120
Uranium	2.45	2.402		mg/Kg		98	80 - 120
Zinc	9.80	9.653		mg/Kg		98	80 - 120

Lab Sample ID: LCSD 860-39003/3-A

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39003

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	9.62	9.736		mg/Kg		101	80 - 120	1	20
Arsenic	9.62	8.805		mg/Kg		92	80 - 120	3	20
Barium	9.62	8.730		mg/Kg		91	80 - 120	1	20
Beryllium	9.62	10.07		mg/Kg		105	80 - 120	2	20
Cadmium	9.62	9.748		mg/Kg		101	80 - 120	1	20
Chromium	9.62	9.823		mg/Kg		102	80 - 120	2	20
Cobalt	9.62	9.924		mg/Kg		103	80 - 120	2	20
Iron	48.1	49.02		mg/Kg		102	80 - 120	1	20
Lead	9.62	9.465		mg/Kg		98	80 - 120	2	20
Manganese	9.62	9.742		mg/Kg		101	80 - 120	1	20
Nickel	9.62	10.14		mg/Kg		105	80 - 120	1	20
Selenium	9.62	8.720		mg/Kg		91	80 - 120	2	20
Silver	4.81	4.928		mg/Kg		103	80 - 120	1	20
Vanadium	9.62	9.725		mg/Kg		101	80 - 120	2	20
Uranium	2.40	2.367		mg/Kg		98	80 - 120	1	20

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 860-39003/3-A

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39003

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	9.62	9.629		mg/Kg		100	80 - 120	0	20

Lab Sample ID: 860-19628-12 MS

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: BI-5 (5-6)

Prep Type: Total/NA

Prep Batch: 39003

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.301	J	10.4	10.80		mg/Kg	✱	101	75 - 125
Arsenic	1.86	J	10.4	11.49		mg/Kg	✱	93	75 - 125
Barium	635		10.4	629.2	4	mg/Kg	✱	-57	75 - 125
Beryllium	2.06	J	10.4	11.72		mg/Kg	✱	93	75 - 125
Cadmium	<0.120	U	10.4	9.862		mg/Kg	✱	95	75 - 125
Chromium	30.8		10.4	39.79		mg/Kg	✱	87	75 - 125
Cobalt	10.1		10.4	20.01		mg/Kg	✱	96	75 - 125
Lead	17.2		10.4	26.44		mg/Kg	✱	89	75 - 125
Manganese	397		10.4	401.3	4	mg/Kg	✱	43	75 - 125
Nickel	20.5		10.4	30.20		mg/Kg	✱	94	75 - 125
Selenium	0.606	J	10.4	10.40		mg/Kg	✱	94	75 - 125
Silver	<0.165	U	5.19	5.148		mg/Kg	✱	99	75 - 125
Vanadium	37.5		10.4	47.05		mg/Kg	✱	92	75 - 125
Uranium	1.39		2.60	3.762		mg/Kg	✱	91	75 - 125
Zinc	52.2		10.4	55.90	4	mg/Kg	✱	36	75 - 125

Lab Sample ID: 860-19628-12 MS

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: BI-5 (5-6)

Prep Type: Total/NA

Prep Batch: 39003

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	28300		51.9	26270	4	mg/Kg	✱	-3888	75 - 125

Lab Sample ID: 860-19628-12 MSD

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: BI-5 (5-6)

Prep Type: Total/NA

Prep Batch: 39003

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.301	J	11.0	10.92		mg/Kg	✱	97	75 - 125	1	20
Arsenic	1.86	J	11.0	12.08		mg/Kg	✱	93	75 - 125	5	20
Barium	635		11.0	663.8	4	mg/Kg	✱	263	75 - 125	5	20
Beryllium	2.06	J	11.0	11.83		mg/Kg	✱	89	75 - 125	1	20
Cadmium	<0.120	U	11.0	10.27		mg/Kg	✱	94	75 - 125	4	20
Chromium	30.8		11.0	41.47		mg/Kg	✱	98	75 - 125	4	20
Cobalt	10.1		11.0	20.56		mg/Kg	✱	95	75 - 125	3	20
Lead	17.2		11.0	27.78		mg/Kg	✱	97	75 - 125	5	20
Manganese	397		11.0	417.4	4	mg/Kg	✱	188	75 - 125	4	20
Nickel	20.5		11.0	31.07		mg/Kg	✱	97	75 - 125	3	20
Selenium	0.606	J	11.0	10.93		mg/Kg	✱	94	75 - 125	5	20
Silver	<0.165	U	5.48	5.312		mg/Kg	✱	97	75 - 125	3	20
Vanadium	37.5		11.0	48.36		mg/Kg	✱	99	75 - 125	3	20
Uranium	1.39		2.74	3.935		mg/Kg	✱	93	75 - 125	4	20

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 860-19628-12 MSD

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: BI-5 (5-6)

Prep Type: Total/NA

Prep Batch: 39003

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	52.2		11.0	55.24	4	mg/Kg	✱	28	75 - 125	1	20

Lab Sample ID: 860-19628-12 MSD

Matrix: Solid

Analysis Batch: 39252

Client Sample ID: BI-5 (5-6)

Prep Type: Total/NA

Prep Batch: 39003

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	28300		54.8	26130	4	mg/Kg	✱	-3934	75 - 125	1	20

Lab Sample ID: MB 860-39241/1-A

Matrix: Solid

Analysis Batch: 40068

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0119	U	0.200	0.0119	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Arsenic	<0.0617	U	0.400	0.0617	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Barium	0.04830	J	0.400	0.0347	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Beryllium	<0.0185	U	0.200	0.0185	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Cadmium	<0.0116	U	0.200	0.0116	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Chromium	<0.0271	U	0.400	0.0271	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Cobalt	<0.0115	U	0.200	0.0115	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Iron	<0.234	U	2.00	0.234	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Lead	<0.0194	U	0.200	0.0194	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Manganese	0.4421		0.200	0.0255	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Nickel	<0.0147	U	0.200	0.0147	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Selenium	<0.0496	U	0.200	0.0496	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Silver	<0.0159	U	0.200	0.0159	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Vanadium	<0.0200	U	0.200	0.0200	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Uranium	<0.00598	U	0.100	0.00598	mg/Kg		01/27/22 16:38	02/02/22 20:10	1
Zinc	0.2877	J	0.400	0.0443	mg/Kg		01/27/22 16:38	02/02/22 20:10	1

Lab Sample ID: LCS 860-39241/2-A

Matrix: Solid

Analysis Batch: 40068

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	9.80	8.962		mg/Kg		91	80 - 120
Arsenic	9.80	9.697		mg/Kg		99	80 - 120
Barium	9.80	9.418		mg/Kg		96	80 - 120
Beryllium	9.80	9.421		mg/Kg		96	80 - 120
Cadmium	9.80	9.659		mg/Kg		99	80 - 120
Chromium	9.80	9.453		mg/Kg		96	80 - 120
Cobalt	9.80	9.655		mg/Kg		98	80 - 120
Iron	49.0	47.83		mg/Kg		98	80 - 120
Lead	9.80	9.251		mg/Kg		94	80 - 120
Manganese	9.80	9.870		mg/Kg		101	80 - 120
Nickel	9.80	9.576		mg/Kg		98	80 - 120
Selenium	9.80	9.622		mg/Kg		98	80 - 120
Silver	4.90	4.680		mg/Kg		95	80 - 120

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 860-39241/2-A

Matrix: Solid

Analysis Batch: 40068

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	9.80	9.548		mg/Kg		97	80 - 120
Uranium	2.45	2.226		mg/Kg		91	80 - 120
Zinc	9.80	10.45		mg/Kg		107	80 - 120

Lab Sample ID: LCSD 860-39241/3-A

Matrix: Solid

Analysis Batch: 40068

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39241

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	9.62	9.036		mg/Kg		94	80 - 120	1	20
Arsenic	9.62	9.502		mg/Kg		99	80 - 120	2	20
Barium	9.62	9.110		mg/Kg		95	80 - 120	3	20
Beryllium	9.62	9.336		mg/Kg		97	80 - 120	1	20
Cadmium	9.62	9.451		mg/Kg		98	80 - 120	2	20
Chromium	9.62	9.413		mg/Kg		98	80 - 120	0	20
Cobalt	9.62	9.448		mg/Kg		98	80 - 120	2	20
Iron	48.1	47.31		mg/Kg		98	80 - 120	1	20
Lead	9.62	8.984		mg/Kg		93	80 - 120	3	20
Manganese	9.62	9.656		mg/Kg		100	80 - 120	2	20
Nickel	9.62	9.477		mg/Kg		99	80 - 120	1	20
Selenium	9.62	9.364		mg/Kg		97	80 - 120	3	20
Silver	4.81	4.577		mg/Kg		95	80 - 120	2	20
Vanadium	9.62	9.467		mg/Kg		98	80 - 120	1	20
Uranium	2.40	2.181		mg/Kg		91	80 - 120	2	20
Zinc	9.62	10.28		mg/Kg		107	80 - 120	2	20

Lab Sample ID: 860-19628-33 MS

Matrix: Solid

Analysis Batch: 40068

Client Sample ID: BI-15 (5-6)

Prep Type: Total/NA

Prep Batch: 39241

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	2.90		9.49	10.83		mg/Kg	⊛	84	75 - 125
Arsenic	2.06	J	9.49	11.77		mg/Kg	⊛	102	75 - 125
Barium	339	B	9.49	313.8	4	mg/Kg	⊛	-263	75 - 125
Beryllium	1.43	J	9.49	10.56		mg/Kg	⊛	96	75 - 125
Cadmium	<0.120	U	9.49	9.463		mg/Kg	⊛	100	75 - 125
Chromium	25.3	F1	9.49	31.39	F1	mg/Kg	⊛	64	75 - 125
Cobalt	8.57		9.49	16.95		mg/Kg	⊛	88	75 - 125
Lead	12.5		9.49	20.64		mg/Kg	⊛	86	75 - 125
Manganese	493	B	9.49	439.6	4	mg/Kg	⊛	-558	75 - 125
Nickel	18.7	F1	9.49	25.58	F1	mg/Kg	⊛	73	75 - 125
Selenium	0.605	J	9.49	10.15		mg/Kg	⊛	101	75 - 125
Silver	<0.165	U	4.75	4.802		mg/Kg	⊛	101	75 - 125
Vanadium	34.9	F1	9.49	39.46	F1	mg/Kg	⊛	48	75 - 125
Uranium	1.08		2.37	3.326		mg/Kg	⊛	95	75 - 125
Zinc	42.3	B	9.49	42.00	4	mg/Kg	⊛	-3	75 - 125

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 860-19628-33 MS

Matrix: Solid

Analysis Batch: 40147

Client Sample ID: BI-15 (5-6)

Prep Type: Total/NA

Prep Batch: 39241

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	24100		47.5	21310	4	mg/Kg	✱	-5955	75 - 125

Lab Sample ID: 860-19628-33 MSD

Matrix: Solid

Analysis Batch: 40068

Client Sample ID: BI-15 (5-6)

Prep Type: Total/NA

Prep Batch: 39241

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	2.90		9.82	11.37		mg/Kg	✱	86	75 - 125	5	20
Arsenic	2.06	J	9.82	12.06		mg/Kg	✱	102	75 - 125	2	20
Barium	339	B	9.82	324.0	4	mg/Kg	✱	-150	75 - 125	3	20
Beryllium	1.43	J	9.82	10.94		mg/Kg	✱	97	75 - 125	4	20
Cadmium	<0.120	U	9.82	10.37		mg/Kg	✱	106	75 - 125	9	20
Chromium	25.3	F1	9.82	34.00		mg/Kg	✱	88	75 - 125	8	20
Cobalt	8.57		9.82	18.09		mg/Kg	✱	97	75 - 125	6	20
Lead	12.5		9.82	21.53		mg/Kg	✱	92	75 - 125	4	20
Manganese	493	B	9.82	472.9	4	mg/Kg	✱	-201	75 - 125	7	20
Nickel	18.7	F1	9.82	27.40		mg/Kg	✱	89	75 - 125	7	20
Selenium	0.605	J	9.82	10.44		mg/Kg	✱	100	75 - 125	3	20
Silver	<0.165	U	4.91	5.169		mg/Kg	✱	105	75 - 125	7	20
Vanadium	34.9	F1	9.82	42.70		mg/Kg	✱	80	75 - 125	8	20
Uranium	1.08		2.45	3.368		mg/Kg	✱	93	75 - 125	1	20
Zinc	42.3	B	9.82	48.26	4	mg/Kg	✱	61	75 - 125	14	20

Lab Sample ID: 860-19628-33 MSD

Matrix: Solid

Analysis Batch: 40147

Client Sample ID: BI-15 (5-6)

Prep Type: Total/NA

Prep Batch: 39241

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	24100		49.1	21320	4	mg/Kg	✱	-5743	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-38899/10-A

Matrix: Water

Analysis Batch: 39004

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38899

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0000263	U	0.000200	0.0000263	mg/L		01/26/22 09:25	01/26/22 14:57	1

Lab Sample ID: LCS 860-38899/11-A

Matrix: Water

Analysis Batch: 39004

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38899

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.002030		mg/L		102	80 - 120

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 860-38899/12-A

Matrix: Water

Analysis Batch: 39004

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38899

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.00200	0.002027		mg/L		101	80 - 120	0	20

Lab Sample ID: 860-19628-2 MS

Matrix: Water

Analysis Batch: 39004

Client Sample ID: EB-01-18-22

Prep Type: Total/NA

Prep Batch: 38899

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.0000263	U	0.00200	0.002014		mg/L		101	75 - 125		

Lab Sample ID: 860-19628-2 MSD

Matrix: Water

Analysis Batch: 39004

Client Sample ID: EB-01-18-22

Prep Type: Total/NA

Prep Batch: 38899

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.0000263	U	0.00200	0.002061		mg/L		103	75 - 125	2	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 860-38820/10-A

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00349	U	0.0182	0.00349	mg/Kg		01/26/22 08:20	01/26/22 11:56	1

Lab Sample ID: LCS 860-38820/11-A

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38820

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.196	0.1951		mg/Kg		100	80 - 120		

Lab Sample ID: LCSD 860-38820/12-A

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38820

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.196	0.1922		mg/Kg		98	80 - 120	2	20

Lab Sample ID: MB 860-38821/10-A

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38821

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00349	U	0.0182	0.00349	mg/Kg		01/26/22 08:20	01/26/22 12:47	1

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 860-38821/11-A

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38821

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.196	0.1936		mg/Kg		99	80 - 120

Lab Sample ID: LCSD 860-38821/12-A

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38821

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.196	0.1946		mg/Kg		99	80 - 120	1	20

Lab Sample ID: 860-19628-4 MS

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: BI-1 (5-6)

Prep Type: Total/NA

Prep Batch: 38821

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0612		0.205	0.2662		mg/Kg	✱	100	75 - 125

Lab Sample ID: 860-19628-4 MSD

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: BI-1 (5-6)

Prep Type: Total/NA

Prep Batch: 38821

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0612		0.205	0.2484		mg/Kg	✱	91	75 - 125	7	20

Lab Sample ID: 860-19628-14 MS

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: BI-6 (5-6)

Prep Type: Total/NA

Prep Batch: 38821

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00698	J	0.198	0.2035		mg/Kg	✱	100	75 - 125

Lab Sample ID: 860-19628-14 MSD

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: BI-6 (5-6)

Prep Type: Total/NA

Prep Batch: 38821

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00698	J	0.198	0.2004		mg/Kg	✱	98	75 - 125	2	20

Lab Sample ID: MB 860-38869/10-A

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 38869

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00349	U	0.0182	0.00349	mg/Kg		01/26/22 08:20	01/26/22 13:41	1

Lab Sample ID: LCS 860-38869/11-A

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 38869

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.196	0.2047		mg/Kg		104	80 - 120

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: LCSD 860-38869/12-A

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 38869

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.196	0.2034		mg/Kg		104	80 - 120	1	20

Lab Sample ID: 860-19628-24 MS

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: BI-11 (5-6)

Prep Type: Total/NA

Prep Batch: 38869

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00602	J	0.219	0.2216		mg/Kg	✱	98	75 - 125		

Lab Sample ID: 860-19628-24 MSD

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: BI-11 (5-6)

Prep Type: Total/NA

Prep Batch: 38869

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00602	J	0.219	0.2221		mg/Kg	✱	99	75 - 125	0	20

Lab Sample ID: 860-19628-36 MS

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: BI-12 (0-1)

Prep Type: Total/NA

Prep Batch: 38869

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00947	J	0.268	0.2753		mg/Kg	✱	99	75 - 125		

Lab Sample ID: 860-19628-36 MSD

Matrix: Solid

Analysis Batch: 38984

Client Sample ID: BI-12 (0-1)

Prep Type: Total/NA

Prep Batch: 38869

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00947	J	0.258	0.2665		mg/Kg	✱	100	75 - 125	3	20

Lab Sample ID: MB 860-39060/10-A

Matrix: Solid

Analysis Batch: 39201

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39060

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00384	U	0.0200	0.00384	mg/Kg		01/27/22 08:50	01/27/22 13:03	1

Lab Sample ID: LCS 860-39060/11-A

Matrix: Solid

Analysis Batch: 39201

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39060

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.185	0.1912		mg/Kg		103	80 - 120		

Lab Sample ID: LCSD 860-39060/12-A

Matrix: Solid

Analysis Batch: 39201

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39060

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.185	0.1889		mg/Kg		102	80 - 120	1	20

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: 860-19628-46 MS

Matrix: Solid

Analysis Batch: 39201

Client Sample ID: BI-21 (0-1)

Prep Type: Total/NA

Prep Batch: 39060

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0145	J	0.250	0.2601		mg/Kg	✱	98	75 - 125

Lab Sample ID: 860-19628-46 MSD

Matrix: Solid

Analysis Batch: 39201

Client Sample ID: BI-21 (0-1)

Prep Type: Total/NA

Prep Batch: 39060

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.0145	J	0.250	0.2557		mg/Kg	✱	96	75 - 125	2	20

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 860-39824/30-A

Matrix: Water

Analysis Batch: 39874

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39824

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<1.98	U	5.00	1.98	ug/L		02/01/22 14:46	02/01/22 17:15	1

Lab Sample ID: MB 860-39824/37-A

Matrix: Solid

Analysis Batch: 39874

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39824

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00248	U	0.00500	0.00248	mg/Kg		02/01/22 14:46	02/01/22 17:28	1

Lab Sample ID: LCS 860-39824/31-A

Matrix: Water

Analysis Batch: 39874

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	100	101.7		ug/L		102	90 - 110

Lab Sample ID: LCS 860-39824/38-A

Matrix: Solid

Analysis Batch: 39874

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.1005		mg/Kg		100	90 - 110

Lab Sample ID: LLCS 860-39824/32-A

Matrix: Water

Analysis Batch: 39874

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	50.0	49.75		ug/L		100	90 - 110

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 9012A - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: LLCS 860-39824/39-A

Matrix: Solid

Analysis Batch: 39874

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0500	0.05092		mg/Kg		102	90 - 110

Lab Sample ID: 860-19628-1 MS

Matrix: Solid

Analysis Batch: 39874

Client Sample ID: DUP-01-18-22

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.143	F1	3.03	2.105	F1	mg/Kg	✱	65	90 - 110

Lab Sample ID: 860-19628-1 MSD

Matrix: Solid

Analysis Batch: 39874

Client Sample ID: DUP-01-18-22

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	0.143	F1	3.03	2.073	F1	mg/Kg	✱	64	90 - 110	1	20

Lab Sample ID: 860-19628-2 MS

Matrix: Water

Analysis Batch: 39874

Client Sample ID: EB-01-18-22

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	<1.98	U F1	200	87.85	F1	ug/L		44	90 - 110

Lab Sample ID: 860-19628-2 MSD

Matrix: Water

Analysis Batch: 39874

Client Sample ID: EB-01-18-22

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	<1.98	U F1	200	89.65	F1	ug/L		45	90 - 110	2	20

Lab Sample ID: 860-19628-11 MS

Matrix: Solid

Analysis Batch: 39874

Client Sample ID: BI-5 (0-1)

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.123	F1	2.80	2.458	F1	mg/Kg	✱	83	90 - 110

Lab Sample ID: 860-19628-11 MSD

Matrix: Solid

Analysis Batch: 39874

Client Sample ID: BI-5 (0-1)

Prep Type: Total/NA

Prep Batch: 39824

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	0.123	F1	2.73	2.404	F1	mg/Kg	✱	83	90 - 110	2	20

Lab Sample ID: MB 860-40012/16-A

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 40012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00248	U	0.00500	0.00248	mg/Kg		02/02/22 14:57	02/02/22 16:26	1

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 860-40012/43-A

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 40012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0298	U	0.0600	0.0298	mg/Kg		02/02/22 14:57	02/02/22 17:13	1

Lab Sample ID: LCS 860-40012/17-A

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.09941		mg/Kg		99	90 - 110

Lab Sample ID: LCS 860-40012/44-A

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	1.20	1.191		mg/Kg		99	90 - 110

Lab Sample ID: LLCS 860-40012/18-A

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0500	0.05084		mg/Kg		102	90 - 110

Lab Sample ID: LLCS 860-40012/45-A

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.600	0.6144		mg/Kg		102	90 - 110

Lab Sample ID: 860-19628-16 MS

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: BI-7 (5-6)

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0325	J	2.58	2.426		mg/Kg	✱	93	90 - 110

Lab Sample ID: 860-19628-16 MSD

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: BI-7 (5-6)

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0325	J	2.58	2.364		mg/Kg	✱	90	90 - 110	3	20

Lab Sample ID: 860-19628-32 MS

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: BI-15 (0-1)

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0736	J	3.13	2.959		mg/Kg	✱	92	90 - 110

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: 860-19628-32 MSD

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: BI-15 (0-1)

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0736	J	3.13	2.933		mg/Kg	✱	91	90 - 110	1	20

Lab Sample ID: 860-19628-42 MS

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: BI-19 (0-1)

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	0.124		2.99	2.810		mg/Kg	✱	90	90 - 110		

Lab Sample ID: 860-19628-42 MSD

Matrix: Solid

Analysis Batch: 40056

Client Sample ID: BI-19 (0-1)

Prep Type: Total/NA

Prep Batch: 40012

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.124		2.99	2.862		mg/Kg	✱	92	90 - 110	2	20

Lab Sample ID: MB 860-40131/17-A

Matrix: Solid

Analysis Batch: 40208

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 40131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.00248	U	0.00500	0.00248	mg/Kg		02/03/22 10:12	02/03/22 15:36	1

Lab Sample ID: MB 860-40131/4-A

Matrix: Water

Analysis Batch: 40208

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 40131

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<1.98	U	5.00	1.98	ug/L		02/03/22 10:12	02/03/22 15:15	1

Lab Sample ID: LCS 860-40131/18-A

Matrix: Solid

Analysis Batch: 40208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	0.100	0.09148		mg/Kg		91	90 - 110		

Lab Sample ID: LCS 860-40131/5-A

Matrix: Water

Analysis Batch: 40208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40131

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	100	97.25		ug/L		97	90 - 110		

Lab Sample ID: LLCS 860-40131/19-A

Matrix: Solid

Analysis Batch: 40208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40131

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	0.0500	0.04856		mg/Kg		97	90 - 110		

Eurofins Houston

QC Sample Results

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: LLCS 860-40131/6-A

Matrix: Water

Analysis Batch: 40208

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 40131

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	50.0	48.41		ug/L		97	90 - 110

Lab Sample ID: 860-19628-16 MS

Matrix: Solid

Analysis Batch: 40208

Client Sample ID: BI-7 (5-6)

Prep Type: Total/NA

Prep Batch: 40131

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	<0.0320	U H	2.58	2.399		mg/Kg	✱	93	90 - 110

Lab Sample ID: 860-19628-16 MSD

Matrix: Solid

Analysis Batch: 40208

Client Sample ID: BI-7 (5-6)

Prep Type: Total/NA

Prep Batch: 40131

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	<0.0320	U H	2.58	2.377		mg/Kg	✱	92	90 - 110	1	20

Eurofins Houston

QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

HPLC/IC

Analysis Batch: 38740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-2	EB-01-18-22	Total/NA	Water	9056A	
860-19628-26	EB-1-19-22	Total/NA	Water	9056A	
860-19628-27	EB-1-20-22	Total/NA	Water	9056A	
MB 860-38740/3	Method Blank	Total/NA	Water	9056A	
MB 860-38740/66	Method Blank	Total/NA	Water	9056A	
LCS 860-38740/4	Lab Control Sample	Total/NA	Water	9056A	
LCS 860-38740/67	Lab Control Sample	Total/NA	Water	9056A	
LCSD 860-38740/5	Lab Control Sample Dup	Total/NA	Water	9056A	
LCSD 860-38740/68	Lab Control Sample Dup	Total/NA	Water	9056A	
860-19628-2 MS	EB-01-18-22	Total/NA	Water	9056A	
860-19628-2 MSD	EB-01-18-22	Total/NA	Water	9056A	
860-19628-27 MS	EB-1-20-22	Total/NA	Water	9056A	
860-19628-27 MSD	EB-1-20-22	Total/NA	Water	9056A	

Analysis Batch: 38814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	9056A	39027
860-19628-3	BI-1 (0-1)	Total/NA	Solid	9056A	39027
860-19628-4	BI-1 (5-6)	Total/NA	Solid	9056A	39027
860-19628-5	BI-2 (0-1)	Total/NA	Solid	9056A	39027
860-19628-6	BI-2 (5-6)	Total/NA	Solid	9056A	39027
860-19628-7	BI-3 (0-1)	Total/NA	Solid	9056A	39027
860-19628-8	BI-3 (5-6)	Total/NA	Solid	9056A	39027
860-19628-9	BI-4 (0-1)	Total/NA	Solid	9056A	39027
860-19628-10	BI-4 (5-6)	Total/NA	Solid	9056A	39027
860-19628-11	BI-5 (0-1)	Total/NA	Solid	9056A	39027
860-19628-12	BI-5 (5-6)	Total/NA	Solid	9056A	39027
860-19628-13	BI-6 (0-1)	Total/NA	Solid	9056A	39027
860-19628-14	BI-6 (5-6)	Total/NA	Solid	9056A	39027
860-19628-15	BI-7 (0-1)	Total/NA	Solid	9056A	39027
860-19628-16	BI-7 (5-6)	Total/NA	Solid	9056A	39027
860-19628-17	BI-8 (0-1)	Total/NA	Solid	9056A	39027
860-19628-18	BI-8 (5-6)	Total/NA	Solid	9056A	39027
860-19628-19	BI-9 (0-1)	Total/NA	Solid	9056A	39027
860-19628-20	BI-9 (5-6)	Total/NA	Solid	9056A	39027
860-19628-21	BI-10 (0-1)	Total/NA	Solid	9056A	39027
860-19628-22	BI-10 (5-6)	Total/NA	Solid	9056A	39027
860-19628-23	BI-11 (0-1)	Total/NA	Solid	9056A	39027
860-19628-24	BI-11 (5-6)	Total/NA	Solid	9056A	39027
860-19628-25	DUP-1-19-22	Total/NA	Solid	9056A	39027
860-19628-28	BI-14 (0-1)	Total/NA	Solid	9056A	39027
860-19628-29	BI-14 (5-6)	Total/NA	Solid	9056A	39027
860-19628-30	BI-16 (0-1)	Total/NA	Solid	9056A	39027
860-19628-31	BI-16 (5-6)	Total/NA	Solid	9056A	39027
860-19628-32	BI-15 (0-1)	Total/NA	Solid	9056A	39027
860-19628-33	BI-15 (5-6)	Total/NA	Solid	9056A	39027
860-19628-34	BI-13 (0-1)	Total/NA	Solid	9056A	39027
860-19628-35	BI-13 (5-6)	Total/NA	Solid	9056A	39027
860-19628-36	BI-12 (0-1)	Total/NA	Solid	9056A	39027
860-19628-37	BI-12 (5-6)	Total/NA	Solid	9056A	39027
860-19628-38	BI-17 (0-1)	Total/NA	Solid	9056A	39027

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QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

HPLC/IC (Continued)

Analysis Batch: 38814 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-39	BI-17 (5-6)	Total/NA	Solid	9056A	39027
860-19628-40	BI-18 (0-1)	Total/NA	Solid	9056A	39027
860-19628-41	BI-18 (5-6)	Total/NA	Solid	9056A	39027
860-19628-42	BI-19 (0-1)	Total/NA	Solid	9056A	39027
860-19628-43	BI-19 (5-6)	Total/NA	Solid	9056A	39027
860-19628-44	BI-20 (0-1)	Total/NA	Solid	9056A	39027
860-19628-45	BI-20 (5-6)	Total/NA	Solid	9056A	39027
860-19628-46	BI-21 (0-1)	Total/NA	Solid	9056A	39027
860-19628-47	BI-21 (5-6)	Total/NA	Solid	9056A	39027
860-19628-48	DUP-1-20-22	Total/NA	Solid	9056A	39027
MB 860-39027/1-A	Method Blank	Total/NA	Solid	9056A	39027
MB 860-39027/28-A	Method Blank	Total/NA	Solid	9056A	39027
MB 860-39027/57-A	Method Blank	Total/NA	Solid	9056A	39027
LCS 860-39027/29-A	Lab Control Sample	Total/NA	Solid	9056A	39027
LCS 860-39027/2-A	Lab Control Sample	Total/NA	Solid	9056A	39027
LCS 860-39027/58-A	Lab Control Sample	Total/NA	Solid	9056A	39027
LCSD 860-39027/30-A	Lab Control Sample Dup	Total/NA	Solid	9056A	39027
LCSD 860-39027/3-A	Lab Control Sample Dup	Total/NA	Solid	9056A	39027
LCSD 860-39027/59-A	Lab Control Sample Dup	Total/NA	Solid	9056A	39027
860-19628-4 MS	BI-1 (5-6)	Total/NA	Solid	9056A	39027
860-19628-4 MSD	BI-1 (5-6)	Total/NA	Solid	9056A	39027
860-19628-5 MS	BI-2 (0-1)	Total/NA	Solid	9056A	39027
860-19628-5 MSD	BI-2 (0-1)	Total/NA	Solid	9056A	39027
860-19628-23 MS	BI-11 (0-1)	Total/NA	Solid	9056A	39027
860-19628-23 MSD	BI-11 (0-1)	Total/NA	Solid	9056A	39027
860-19628-28 MS	BI-14 (0-1)	Total/NA	Solid	9056A	39027
860-19628-28 MSD	BI-14 (0-1)	Total/NA	Solid	9056A	39027
860-19628-41 MS	BI-18 (5-6)	Total/NA	Solid	9056A	39027
860-19628-41 MSD	BI-18 (5-6)	Total/NA	Solid	9056A	39027

Prep Batch: 39027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	300_Prep	
860-19628-3	BI-1 (0-1)	Total/NA	Solid	300_Prep	
860-19628-4	BI-1 (5-6)	Total/NA	Solid	300_Prep	
860-19628-5	BI-2 (0-1)	Total/NA	Solid	300_Prep	
860-19628-6	BI-2 (5-6)	Total/NA	Solid	300_Prep	
860-19628-7	BI-3 (0-1)	Total/NA	Solid	300_Prep	
860-19628-8	BI-3 (5-6)	Total/NA	Solid	300_Prep	
860-19628-9	BI-4 (0-1)	Total/NA	Solid	300_Prep	
860-19628-10	BI-4 (5-6)	Total/NA	Solid	300_Prep	
860-19628-11	BI-5 (0-1)	Total/NA	Solid	300_Prep	
860-19628-12	BI-5 (5-6)	Total/NA	Solid	300_Prep	
860-19628-13	BI-6 (0-1)	Total/NA	Solid	300_Prep	
860-19628-14	BI-6 (5-6)	Total/NA	Solid	300_Prep	
860-19628-15	BI-7 (0-1)	Total/NA	Solid	300_Prep	
860-19628-16	BI-7 (5-6)	Total/NA	Solid	300_Prep	
860-19628-17	BI-8 (0-1)	Total/NA	Solid	300_Prep	
860-19628-18	BI-8 (5-6)	Total/NA	Solid	300_Prep	
860-19628-19	BI-9 (0-1)	Total/NA	Solid	300_Prep	
860-19628-20	BI-9 (5-6)	Total/NA	Solid	300_Prep	

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QC Association Summary

Client: Trihydro Corporation
 Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

HPLC/IC (Continued)

Prep Batch: 39027 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-21	BI-10 (0-1)	Total/NA	Solid	300_Prep	
860-19628-22	BI-10 (5-6)	Total/NA	Solid	300_Prep	
860-19628-23	BI-11 (0-1)	Total/NA	Solid	300_Prep	
860-19628-24	BI-11 (5-6)	Total/NA	Solid	300_Prep	
860-19628-25	DUP-1-19-22	Total/NA	Solid	300_Prep	
860-19628-28	BI-14 (0-1)	Total/NA	Solid	300_Prep	
860-19628-29	BI-14 (5-6)	Total/NA	Solid	300_Prep	
860-19628-30	BI-16 (0-1)	Total/NA	Solid	300_Prep	
860-19628-31	BI-16 (5-6)	Total/NA	Solid	300_Prep	
860-19628-32	BI-15 (0-1)	Total/NA	Solid	300_Prep	
860-19628-33	BI-15 (5-6)	Total/NA	Solid	300_Prep	
860-19628-34	BI-13 (0-1)	Total/NA	Solid	300_Prep	
860-19628-35	BI-13 (5-6)	Total/NA	Solid	300_Prep	
860-19628-36	BI-12 (0-1)	Total/NA	Solid	300_Prep	
860-19628-37	BI-12 (5-6)	Total/NA	Solid	300_Prep	
860-19628-38	BI-17 (0-1)	Total/NA	Solid	300_Prep	
860-19628-39	BI-17 (5-6)	Total/NA	Solid	300_Prep	
860-19628-40	BI-18 (0-1)	Total/NA	Solid	300_Prep	
860-19628-41	BI-18 (5-6)	Total/NA	Solid	300_Prep	
860-19628-42	BI-19 (0-1)	Total/NA	Solid	300_Prep	
860-19628-43	BI-19 (5-6)	Total/NA	Solid	300_Prep	
860-19628-44	BI-20 (0-1)	Total/NA	Solid	300_Prep	
860-19628-45	BI-20 (5-6)	Total/NA	Solid	300_Prep	
860-19628-46	BI-21 (0-1)	Total/NA	Solid	300_Prep	
860-19628-47	BI-21 (5-6)	Total/NA	Solid	300_Prep	
860-19628-48	DUP-1-20-22	Total/NA	Solid	300_Prep	
MB 860-39027/1-A	Method Blank	Total/NA	Solid	300_Prep	
MB 860-39027/28-A	Method Blank	Total/NA	Solid	300_Prep	
MB 860-39027/57-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 860-39027/29-A	Lab Control Sample	Total/NA	Solid	300_Prep	
LCS 860-39027/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
LCS 860-39027/58-A	Lab Control Sample	Total/NA	Solid	300_Prep	
LCSD 860-39027/30-A	Lab Control Sample Dup	Total/NA	Solid	300_Prep	
LCSD 860-39027/3-A	Lab Control Sample Dup	Total/NA	Solid	300_Prep	
LCSD 860-39027/59-A	Lab Control Sample Dup	Total/NA	Solid	300_Prep	
860-19628-4 MS	BI-1 (5-6)	Total/NA	Solid	300_Prep	
860-19628-4 MSD	BI-1 (5-6)	Total/NA	Solid	300_Prep	
860-19628-5 MS	BI-2 (0-1)	Total/NA	Solid	300_Prep	
860-19628-5 MSD	BI-2 (0-1)	Total/NA	Solid	300_Prep	
860-19628-23 MS	BI-11 (0-1)	Total/NA	Solid	300_Prep	
860-19628-23 MSD	BI-11 (0-1)	Total/NA	Solid	300_Prep	
860-19628-28 MS	BI-14 (0-1)	Total/NA	Solid	300_Prep	
860-19628-28 MSD	BI-14 (0-1)	Total/NA	Solid	300_Prep	
860-19628-41 MS	BI-18 (5-6)	Total/NA	Solid	300_Prep	
860-19628-41 MSD	BI-18 (5-6)	Total/NA	Solid	300_Prep	

Metals

Prep Batch: 38820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	7471A	

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QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Metals (Continued)

Prep Batch: 38820 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-3	BI-1 (0-1)	Total/NA	Solid	7471A	
MB 860-38820/10-A	Method Blank	Total/NA	Solid	7471A	
LCS 860-38820/11-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 860-38820/12-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

Prep Batch: 38821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-4	BI-1 (5-6)	Total/NA	Solid	7471A	
860-19628-5	BI-2 (0-1)	Total/NA	Solid	7471A	
860-19628-6	BI-2 (5-6)	Total/NA	Solid	7471A	
860-19628-7	BI-3 (0-1)	Total/NA	Solid	7471A	
860-19628-8	BI-3 (5-6)	Total/NA	Solid	7471A	
860-19628-9	BI-4 (0-1)	Total/NA	Solid	7471A	
860-19628-10	BI-4 (5-6)	Total/NA	Solid	7471A	
860-19628-11	BI-5 (0-1)	Total/NA	Solid	7471A	
860-19628-12	BI-5 (5-6)	Total/NA	Solid	7471A	
860-19628-13	BI-6 (0-1)	Total/NA	Solid	7471A	
860-19628-14	BI-6 (5-6)	Total/NA	Solid	7471A	
860-19628-15	BI-7 (0-1)	Total/NA	Solid	7471A	
860-19628-16	BI-7 (5-6)	Total/NA	Solid	7471A	
860-19628-17	BI-8 (0-1)	Total/NA	Solid	7471A	
860-19628-18	BI-8 (5-6)	Total/NA	Solid	7471A	
860-19628-19	BI-9 (0-1)	Total/NA	Solid	7471A	
860-19628-20	BI-9 (5-6)	Total/NA	Solid	7471A	
860-19628-21	BI-10 (0-1)	Total/NA	Solid	7471A	
860-19628-22	BI-10 (5-6)	Total/NA	Solid	7471A	
860-19628-23	BI-11 (0-1)	Total/NA	Solid	7471A	
MB 860-38821/10-A	Method Blank	Total/NA	Solid	7471A	
LCS 860-38821/11-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 860-38821/12-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
860-19628-4 MS	BI-1 (5-6)	Total/NA	Solid	7471A	
860-19628-4 MSD	BI-1 (5-6)	Total/NA	Solid	7471A	
860-19628-14 MS	BI-6 (5-6)	Total/NA	Solid	7471A	
860-19628-14 MSD	BI-6 (5-6)	Total/NA	Solid	7471A	

Prep Batch: 38869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-24	BI-11 (5-6)	Total/NA	Solid	7471A	
860-19628-25	DUP-1-19-22	Total/NA	Solid	7471A	
860-19628-28	BI-14 (0-1)	Total/NA	Solid	7471A	
860-19628-29	BI-14 (5-6)	Total/NA	Solid	7471A	
860-19628-30	BI-16 (0-1)	Total/NA	Solid	7471A	
860-19628-31	BI-16 (5-6)	Total/NA	Solid	7471A	
860-19628-32	BI-15 (0-1)	Total/NA	Solid	7471A	
860-19628-33	BI-15 (5-6)	Total/NA	Solid	7471A	
860-19628-34	BI-13 (0-1)	Total/NA	Solid	7471A	
860-19628-35	BI-13 (5-6)	Total/NA	Solid	7471A	
860-19628-36	BI-12 (0-1)	Total/NA	Solid	7471A	
860-19628-37	BI-12 (5-6)	Total/NA	Solid	7471A	
860-19628-38	BI-17 (0-1)	Total/NA	Solid	7471A	
860-19628-39	BI-17 (5-6)	Total/NA	Solid	7471A	

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QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Metals (Continued)

Prep Batch: 38869 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-40	BI-18 (0-1)	Total/NA	Solid	7471A	
860-19628-41	BI-18 (5-6)	Total/NA	Solid	7471A	
860-19628-42	BI-19 (0-1)	Total/NA	Solid	7471A	
860-19628-43	BI-19 (5-6)	Total/NA	Solid	7471A	
860-19628-44	BI-20 (0-1)	Total/NA	Solid	7471A	
860-19628-45	BI-20 (5-6)	Total/NA	Solid	7471A	
MB 860-38869/10-A	Method Blank	Total/NA	Solid	7471A	
LCS 860-38869/11-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 860-38869/12-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
860-19628-24 MS	BI-11 (5-6)	Total/NA	Solid	7471A	
860-19628-24 MSD	BI-11 (5-6)	Total/NA	Solid	7471A	
860-19628-36 MS	BI-12 (0-1)	Total/NA	Solid	7471A	
860-19628-36 MSD	BI-12 (0-1)	Total/NA	Solid	7471A	

Prep Batch: 38889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-2	EB-01-18-22	Total/NA	Water	3010A	
860-19628-26	EB-1-19-22	Total/NA	Water	3010A	
860-19628-27	EB-1-20-22	Total/NA	Water	3010A	
MB 860-38889/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-38889/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-38889/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	

Prep Batch: 38899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-2	EB-01-18-22	Total/NA	Water	7470A	
860-19628-26	EB-1-19-22	Total/NA	Water	7470A	
860-19628-27	EB-1-20-22	Total/NA	Water	7470A	
MB 860-38899/10-A	Method Blank	Total/NA	Water	7470A	
LCS 860-38899/11-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 860-38899/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	
860-19628-2 MS	EB-01-18-22	Total/NA	Water	7470A	
860-19628-2 MSD	EB-01-18-22	Total/NA	Water	7470A	

Prep Batch: 38954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	3051A	
860-19628-3	BI-1 (0-1)	Total/NA	Solid	3051A	
860-19628-4	BI-1 (5-6)	Total/NA	Solid	3051A	
860-19628-5	BI-2 (0-1)	Total/NA	Solid	3051A	
860-19628-6	BI-2 (5-6)	Total/NA	Solid	3051A	
860-19628-7	BI-3 (0-1)	Total/NA	Solid	3051A	
860-19628-8	BI-3 (5-6)	Total/NA	Solid	3051A	
860-19628-9	BI-4 (0-1)	Total/NA	Solid	3051A	
860-19628-10	BI-4 (5-6)	Total/NA	Solid	3051A	
860-19628-11	BI-5 (0-1)	Total/NA	Solid	3051A	
MB 860-38954/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 860-38954/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 860-38954/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	

Eurofins Houston

QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Metals

Analysis Batch: 38984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	7471A	38820
860-19628-3	BI-1 (0-1)	Total/NA	Solid	7471A	38820
860-19628-4	BI-1 (5-6)	Total/NA	Solid	7471A	38821
860-19628-5	BI-2 (0-1)	Total/NA	Solid	7471A	38821
860-19628-6	BI-2 (5-6)	Total/NA	Solid	7471A	38821
860-19628-7	BI-3 (0-1)	Total/NA	Solid	7471A	38821
860-19628-8	BI-3 (5-6)	Total/NA	Solid	7471A	38821
860-19628-9	BI-4 (0-1)	Total/NA	Solid	7471A	38821
860-19628-10	BI-4 (5-6)	Total/NA	Solid	7471A	38821
860-19628-11	BI-5 (0-1)	Total/NA	Solid	7471A	38821
860-19628-12	BI-5 (5-6)	Total/NA	Solid	7471A	38821
860-19628-13	BI-6 (0-1)	Total/NA	Solid	7471A	38821
860-19628-14	BI-6 (5-6)	Total/NA	Solid	7471A	38821
860-19628-15	BI-7 (0-1)	Total/NA	Solid	7471A	38821
860-19628-16	BI-7 (5-6)	Total/NA	Solid	7471A	38821
860-19628-17	BI-8 (0-1)	Total/NA	Solid	7471A	38821
860-19628-18	BI-8 (5-6)	Total/NA	Solid	7471A	38821
860-19628-19	BI-9 (0-1)	Total/NA	Solid	7471A	38821
860-19628-20	BI-9 (5-6)	Total/NA	Solid	7471A	38821
860-19628-21	BI-10 (0-1)	Total/NA	Solid	7471A	38821
860-19628-22	BI-10 (5-6)	Total/NA	Solid	7471A	38821
860-19628-23	BI-11 (0-1)	Total/NA	Solid	7471A	38821
860-19628-24	BI-11 (5-6)	Total/NA	Solid	7471A	38869
860-19628-25	DUP-1-19-22	Total/NA	Solid	7471A	38869
860-19628-28	BI-14 (0-1)	Total/NA	Solid	7471A	38869
860-19628-29	BI-14 (5-6)	Total/NA	Solid	7471A	38869
860-19628-30	BI-16 (0-1)	Total/NA	Solid	7471A	38869
860-19628-31	BI-16 (5-6)	Total/NA	Solid	7471A	38869
860-19628-32	BI-15 (0-1)	Total/NA	Solid	7471A	38869
860-19628-33	BI-15 (5-6)	Total/NA	Solid	7471A	38869
860-19628-34	BI-13 (0-1)	Total/NA	Solid	7471A	38869
860-19628-35	BI-13 (5-6)	Total/NA	Solid	7471A	38869
860-19628-36	BI-12 (0-1)	Total/NA	Solid	7471A	38869
860-19628-37	BI-12 (5-6)	Total/NA	Solid	7471A	38869
860-19628-38	BI-17 (0-1)	Total/NA	Solid	7471A	38869
860-19628-39	BI-17 (5-6)	Total/NA	Solid	7471A	38869
860-19628-40	BI-18 (0-1)	Total/NA	Solid	7471A	38869
860-19628-41	BI-18 (5-6)	Total/NA	Solid	7471A	38869
860-19628-42	BI-19 (0-1)	Total/NA	Solid	7471A	38869
860-19628-43	BI-19 (5-6)	Total/NA	Solid	7471A	38869
860-19628-44	BI-20 (0-1)	Total/NA	Solid	7471A	38869
860-19628-45	BI-20 (5-6)	Total/NA	Solid	7471A	38869
MB 860-38820/10-A	Method Blank	Total/NA	Solid	7471A	38820
MB 860-38821/10-A	Method Blank	Total/NA	Solid	7471A	38821
MB 860-38869/10-A	Method Blank	Total/NA	Solid	7471A	38869
LCS 860-38820/11-A	Lab Control Sample	Total/NA	Solid	7471A	38820
LCS 860-38821/11-A	Lab Control Sample	Total/NA	Solid	7471A	38821
LCS 860-38869/11-A	Lab Control Sample	Total/NA	Solid	7471A	38869
LCSD 860-38820/12-A	Lab Control Sample Dup	Total/NA	Solid	7471A	38820
LCSD 860-38821/12-A	Lab Control Sample Dup	Total/NA	Solid	7471A	38821
LCSD 860-38869/12-A	Lab Control Sample Dup	Total/NA	Solid	7471A	38869

Eurofins Houston

QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Metals (Continued)

Analysis Batch: 38984 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-4 MS	BI-1 (5-6)	Total/NA	Solid	7471A	38821
860-19628-4 MSD	BI-1 (5-6)	Total/NA	Solid	7471A	38821
860-19628-14 MS	BI-6 (5-6)	Total/NA	Solid	7471A	38821
860-19628-14 MSD	BI-6 (5-6)	Total/NA	Solid	7471A	38821
860-19628-24 MS	BI-11 (5-6)	Total/NA	Solid	7471A	38869
860-19628-24 MSD	BI-11 (5-6)	Total/NA	Solid	7471A	38869
860-19628-36 MS	BI-12 (0-1)	Total/NA	Solid	7471A	38869
860-19628-36 MSD	BI-12 (0-1)	Total/NA	Solid	7471A	38869

Prep Batch: 39003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-12	BI-5 (5-6)	Total/NA	Solid	3051A	
860-19628-13	BI-6 (0-1)	Total/NA	Solid	3051A	
860-19628-14	BI-6 (5-6)	Total/NA	Solid	3051A	
860-19628-15	BI-7 (0-1)	Total/NA	Solid	3051A	
860-19628-16	BI-7 (5-6)	Total/NA	Solid	3051A	
860-19628-17	BI-8 (0-1)	Total/NA	Solid	3051A	
860-19628-18	BI-8 (5-6)	Total/NA	Solid	3051A	
860-19628-19	BI-9 (0-1)	Total/NA	Solid	3051A	
860-19628-20	BI-9 (5-6)	Total/NA	Solid	3051A	
860-19628-21	BI-10 (0-1)	Total/NA	Solid	3051A	
860-19628-22	BI-10 (5-6)	Total/NA	Solid	3051A	
860-19628-23	BI-11 (0-1)	Total/NA	Solid	3051A	
860-19628-24	BI-11 (5-6)	Total/NA	Solid	3051A	
860-19628-25	DUP-1-19-22	Total/NA	Solid	3051A	
860-19628-28	BI-14 (0-1)	Total/NA	Solid	3051A	
860-19628-29	BI-14 (5-6)	Total/NA	Solid	3051A	
860-19628-30	BI-16 (0-1)	Total/NA	Solid	3051A	
860-19628-31	BI-16 (5-6)	Total/NA	Solid	3051A	
860-19628-32	BI-15 (0-1)	Total/NA	Solid	3051A	
MB 860-39003/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 860-39003/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 860-39003/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	
860-19628-12 MS	BI-5 (5-6)	Total/NA	Solid	3051A	
860-19628-12 MSD	BI-5 (5-6)	Total/NA	Solid	3051A	

Analysis Batch: 39004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-2	EB-01-18-22	Total/NA	Water	7470A	38899
860-19628-26	EB-1-19-22	Total/NA	Water	7470A	38899
860-19628-27	EB-1-20-22	Total/NA	Water	7470A	38899
MB 860-38899/10-A	Method Blank	Total/NA	Water	7470A	38899
LCS 860-38899/11-A	Lab Control Sample	Total/NA	Water	7470A	38899
LCSD 860-38899/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	38899
860-19628-2 MS	EB-01-18-22	Total/NA	Water	7470A	38899
860-19628-2 MSD	EB-01-18-22	Total/NA	Water	7470A	38899

Analysis Batch: 39033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-2	EB-01-18-22	Total/NA	Water	6020A	38889
860-19628-26	EB-1-19-22	Total/NA	Water	6020A	38889

Eurofins Houston

QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Metals (Continued)

Analysis Batch: 39033 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-27	EB-1-20-22	Total/NA	Water	6020A	38889
MB 860-38889/1-A	Method Blank	Total/NA	Water	6020A	38889
LCS 860-38889/2-A	Lab Control Sample	Total/NA	Water	6020A	38889
LCSD 860-38889/3-A	Lab Control Sample Dup	Total/NA	Water	6020A	38889

Prep Batch: 39060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-46	BI-21 (0-1)	Total/NA	Solid	7471A	
860-19628-47	BI-21 (5-6)	Total/NA	Solid	7471A	
860-19628-48	DUP-1-20-22	Total/NA	Solid	7471A	
MB 860-39060/10-A	Method Blank	Total/NA	Solid	7471A	
LCS 860-39060/11-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 860-39060/12-A	Lab Control Sample Dup	Total/NA	Solid	7471A	
860-19628-46 MS	BI-21 (0-1)	Total/NA	Solid	7471A	
860-19628-46 MSD	BI-21 (0-1)	Total/NA	Solid	7471A	

Analysis Batch: 39063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	6020A	38954
860-19628-3	BI-1 (0-1)	Total/NA	Solid	6020A	38954
860-19628-4	BI-1 (5-6)	Total/NA	Solid	6020A	38954
860-19628-5	BI-2 (0-1)	Total/NA	Solid	6020A	38954
860-19628-6	BI-2 (5-6)	Total/NA	Solid	6020A	38954
860-19628-7	BI-3 (0-1)	Total/NA	Solid	6020A	38954
860-19628-8	BI-3 (5-6)	Total/NA	Solid	6020A	38954
860-19628-9	BI-4 (0-1)	Total/NA	Solid	6020A	38954
860-19628-10	BI-4 (5-6)	Total/NA	Solid	6020A	38954
860-19628-11	BI-5 (0-1)	Total/NA	Solid	6020A	38954
MB 860-38954/1-A	Method Blank	Total/NA	Solid	6020A	38954
LCS 860-38954/2-A	Lab Control Sample	Total/NA	Solid	6020A	38954
LCSD 860-38954/3-A	Lab Control Sample Dup	Total/NA	Solid	6020A	38954

Analysis Batch: 39164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	6020A	38954
860-19628-3	BI-1 (0-1)	Total/NA	Solid	6020A	38954
860-19628-4	BI-1 (5-6)	Total/NA	Solid	6020A	38954
860-19628-5	BI-2 (0-1)	Total/NA	Solid	6020A	38954
860-19628-6	BI-2 (5-6)	Total/NA	Solid	6020A	38954
860-19628-7	BI-3 (0-1)	Total/NA	Solid	6020A	38954
860-19628-8	BI-3 (5-6)	Total/NA	Solid	6020A	38954
860-19628-9	BI-4 (0-1)	Total/NA	Solid	6020A	38954
860-19628-10	BI-4 (5-6)	Total/NA	Solid	6020A	38954
860-19628-11	BI-5 (0-1)	Total/NA	Solid	6020A	38954

Analysis Batch: 39201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-46	BI-21 (0-1)	Total/NA	Solid	7471A	39060
860-19628-47	BI-21 (5-6)	Total/NA	Solid	7471A	39060
860-19628-48	DUP-1-20-22	Total/NA	Solid	7471A	39060
MB 860-39060/10-A	Method Blank	Total/NA	Solid	7471A	39060

Eurofins Houston

QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Metals (Continued)

Analysis Batch: 39201 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-39060/11-A	Lab Control Sample	Total/NA	Solid	7471A	39060
LCSD 860-39060/12-A	Lab Control Sample Dup	Total/NA	Solid	7471A	39060
860-19628-46 MS	BI-21 (0-1)	Total/NA	Solid	7471A	39060
860-19628-46 MSD	BI-21 (0-1)	Total/NA	Solid	7471A	39060

Prep Batch: 39241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-33	BI-15 (5-6)	Total/NA	Solid	3051A	
860-19628-34	BI-13 (0-1)	Total/NA	Solid	3051A	
860-19628-35	BI-13 (5-6)	Total/NA	Solid	3051A	
860-19628-36	BI-12 (0-1)	Total/NA	Solid	3051A	
860-19628-37	BI-12 (5-6)	Total/NA	Solid	3051A	
860-19628-38	BI-17 (0-1)	Total/NA	Solid	3051A	
860-19628-39	BI-17 (5-6)	Total/NA	Solid	3051A	
860-19628-40	BI-18 (0-1)	Total/NA	Solid	3051A	
860-19628-41	BI-18 (5-6)	Total/NA	Solid	3051A	
860-19628-42	BI-19 (0-1)	Total/NA	Solid	3051A	
860-19628-43	BI-19 (5-6)	Total/NA	Solid	3051A	
860-19628-44	BI-20 (0-1)	Total/NA	Solid	3051A	
860-19628-45	BI-20 (5-6)	Total/NA	Solid	3051A	
860-19628-46	BI-21 (0-1)	Total/NA	Solid	3051A	
860-19628-47	BI-21 (5-6)	Total/NA	Solid	3051A	
860-19628-48	DUP-1-20-22	Total/NA	Solid	3051A	
MB 860-39241/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 860-39241/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 860-39241/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	
860-19628-33 MS	BI-15 (5-6)	Total/NA	Solid	3051A	
860-19628-33 MSD	BI-15 (5-6)	Total/NA	Solid	3051A	

Analysis Batch: 39252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-12	BI-5 (5-6)	Total/NA	Solid	6020A	39003
860-19628-12	BI-5 (5-6)	Total/NA	Solid	6020A	39003
860-19628-13	BI-6 (0-1)	Total/NA	Solid	6020A	39003
860-19628-13	BI-6 (0-1)	Total/NA	Solid	6020A	39003
860-19628-14	BI-6 (5-6)	Total/NA	Solid	6020A	39003
860-19628-15	BI-7 (0-1)	Total/NA	Solid	6020A	39003
860-19628-16	BI-7 (5-6)	Total/NA	Solid	6020A	39003
860-19628-16	BI-7 (5-6)	Total/NA	Solid	6020A	39003
860-19628-17	BI-8 (0-1)	Total/NA	Solid	6020A	39003
860-19628-18	BI-8 (5-6)	Total/NA	Solid	6020A	39003
860-19628-18	BI-8 (5-6)	Total/NA	Solid	6020A	39003
860-19628-19	BI-9 (0-1)	Total/NA	Solid	6020A	39003
860-19628-19	BI-9 (0-1)	Total/NA	Solid	6020A	39003
860-19628-20	BI-9 (5-6)	Total/NA	Solid	6020A	39003
860-19628-20	BI-9 (5-6)	Total/NA	Solid	6020A	39003
860-19628-21	BI-10 (0-1)	Total/NA	Solid	6020A	39003
860-19628-21	BI-10 (0-1)	Total/NA	Solid	6020A	39003
860-19628-22	BI-10 (5-6)	Total/NA	Solid	6020A	39003
860-19628-22	BI-10 (5-6)	Total/NA	Solid	6020A	39003
860-19628-23	BI-11 (0-1)	Total/NA	Solid	6020A	39003

Eurofins Houston

QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Metals (Continued)

Analysis Batch: 39252 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-23	BI-11 (0-1)	Total/NA	Solid	6020A	39003
860-19628-24	BI-11 (5-6)	Total/NA	Solid	6020A	39003
860-19628-24	BI-11 (5-6)	Total/NA	Solid	6020A	39003
860-19628-25	DUP-1-19-22	Total/NA	Solid	6020A	39003
860-19628-25	DUP-1-19-22	Total/NA	Solid	6020A	39003
860-19628-28	BI-14 (0-1)	Total/NA	Solid	6020A	39003
860-19628-28	BI-14 (0-1)	Total/NA	Solid	6020A	39003
860-19628-29	BI-14 (5-6)	Total/NA	Solid	6020A	39003
860-19628-29	BI-14 (5-6)	Total/NA	Solid	6020A	39003
860-19628-30	BI-16 (0-1)	Total/NA	Solid	6020A	39003
860-19628-30	BI-16 (0-1)	Total/NA	Solid	6020A	39003
860-19628-31	BI-16 (5-6)	Total/NA	Solid	6020A	39003
860-19628-31	BI-16 (5-6)	Total/NA	Solid	6020A	39003
860-19628-32	BI-15 (0-1)	Total/NA	Solid	6020A	39003
860-19628-32	BI-15 (0-1)	Total/NA	Solid	6020A	39003
MB 860-39003/1-A	Method Blank	Total/NA	Solid	6020A	39003
LCS 860-39003/2-A	Lab Control Sample	Total/NA	Solid	6020A	39003
LCSD 860-39003/3-A	Lab Control Sample Dup	Total/NA	Solid	6020A	39003
860-19628-12 MS	BI-5 (5-6)	Total/NA	Solid	6020A	39003
860-19628-12 MS	BI-5 (5-6)	Total/NA	Solid	6020A	39003
860-19628-12 MSD	BI-5 (5-6)	Total/NA	Solid	6020A	39003
860-19628-12 MSD	BI-5 (5-6)	Total/NA	Solid	6020A	39003

Analysis Batch: 40068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-33	BI-15 (5-6)	Total/NA	Solid	6020A	39241
860-19628-34	BI-13 (0-1)	Total/NA	Solid	6020A	39241
860-19628-35	BI-13 (5-6)	Total/NA	Solid	6020A	39241
860-19628-36	BI-12 (0-1)	Total/NA	Solid	6020A	39241
860-19628-37	BI-12 (5-6)	Total/NA	Solid	6020A	39241
860-19628-38	BI-17 (0-1)	Total/NA	Solid	6020A	39241
860-19628-39	BI-17 (5-6)	Total/NA	Solid	6020A	39241
860-19628-40	BI-18 (0-1)	Total/NA	Solid	6020A	39241
860-19628-41	BI-18 (5-6)	Total/NA	Solid	6020A	39241
860-19628-42	BI-19 (0-1)	Total/NA	Solid	6020A	39241
860-19628-43	BI-19 (5-6)	Total/NA	Solid	6020A	39241
860-19628-44	BI-20 (0-1)	Total/NA	Solid	6020A	39241
860-19628-45	BI-20 (5-6)	Total/NA	Solid	6020A	39241
860-19628-46	BI-21 (0-1)	Total/NA	Solid	6020A	39241
860-19628-47	BI-21 (5-6)	Total/NA	Solid	6020A	39241
860-19628-48	DUP-1-20-22	Total/NA	Solid	6020A	39241
MB 860-39241/1-A	Method Blank	Total/NA	Solid	6020A	39241
LCS 860-39241/2-A	Lab Control Sample	Total/NA	Solid	6020A	39241
LCSD 860-39241/3-A	Lab Control Sample Dup	Total/NA	Solid	6020A	39241
860-19628-33 MS	BI-15 (5-6)	Total/NA	Solid	6020A	39241
860-19628-33 MSD	BI-15 (5-6)	Total/NA	Solid	6020A	39241

Analysis Batch: 40147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-33	BI-15 (5-6)	Total/NA	Solid	6020A	39241
860-19628-34	BI-13 (0-1)	Total/NA	Solid	6020A	39241

Eurofins Houston

QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Metals (Continued)

Analysis Batch: 40147 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-35	BI-13 (5-6)	Total/NA	Solid	6020A	39241
860-19628-36	BI-12 (0-1)	Total/NA	Solid	6020A	39241
860-19628-37	BI-12 (5-6)	Total/NA	Solid	6020A	39241
860-19628-38	BI-17 (0-1)	Total/NA	Solid	6020A	39241
860-19628-40	BI-18 (0-1)	Total/NA	Solid	6020A	39241
860-19628-42	BI-19 (0-1)	Total/NA	Solid	6020A	39241
860-19628-43	BI-19 (5-6)	Total/NA	Solid	6020A	39241
860-19628-44	BI-20 (0-1)	Total/NA	Solid	6020A	39241
860-19628-45	BI-20 (5-6)	Total/NA	Solid	6020A	39241
860-19628-46	BI-21 (0-1)	Total/NA	Solid	6020A	39241
860-19628-48	DUP-1-20-22	Total/NA	Solid	6020A	39241
860-19628-33 MS	BI-15 (5-6)	Total/NA	Solid	6020A	39241
860-19628-33 MSD	BI-15 (5-6)	Total/NA	Solid	6020A	39241

General Chemistry

Analysis Batch: 39064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-39064/1	Method Blank	Total/NA	Solid	Moisture	

Analysis Batch: 39072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-6	BI-2 (5-6)	Total/NA	Solid	Moisture	
860-19628-7	BI-3 (0-1)	Total/NA	Solid	Moisture	
860-19628-8	BI-3 (5-6)	Total/NA	Solid	Moisture	
860-19628-9	BI-4 (0-1)	Total/NA	Solid	Moisture	
860-19628-10	BI-4 (5-6)	Total/NA	Solid	Moisture	
860-19628-11	BI-5 (0-1)	Total/NA	Solid	Moisture	
860-19628-12	BI-5 (5-6)	Total/NA	Solid	Moisture	
860-19628-13	BI-6 (0-1)	Total/NA	Solid	Moisture	
MB 860-39072/1	Method Blank	Total/NA	Solid	Moisture	

Analysis Batch: 39148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-41	BI-18 (5-6)	Total/NA	Solid	Moisture	
860-19628-42	BI-19 (0-1)	Total/NA	Solid	Moisture	
860-19628-43	BI-19 (5-6)	Total/NA	Solid	Moisture	
860-19628-44	BI-20 (0-1)	Total/NA	Solid	Moisture	
860-19628-45	BI-20 (5-6)	Total/NA	Solid	Moisture	
860-19628-46	BI-21 (0-1)	Total/NA	Solid	Moisture	
860-19628-47	BI-21 (5-6)	Total/NA	Solid	Moisture	
860-19628-48	DUP-1-20-22	Total/NA	Solid	Moisture	
MB 860-39148/1	Method Blank	Total/NA	Solid	Moisture	

Analysis Batch: 39175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	Moisture	
860-19628-3	BI-1 (0-1)	Total/NA	Solid	Moisture	
860-19628-4	BI-1 (5-6)	Total/NA	Solid	Moisture	
860-19628-5	BI-2 (0-1)	Total/NA	Solid	Moisture	
860-19628-14	BI-6 (5-6)	Total/NA	Solid	Moisture	

Eurofins Houston

QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

General Chemistry (Continued)

Analysis Batch: 39175 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-15	BI-7 (0-1)	Total/NA	Solid	Moisture	
860-19628-16	BI-7 (5-6)	Total/NA	Solid	Moisture	
860-19628-17	BI-8 (0-1)	Total/NA	Solid	Moisture	
860-19628-18	BI-8 (5-6)	Total/NA	Solid	Moisture	
MB 860-39175/1	Method Blank	Total/NA	Solid	Moisture	

Analysis Batch: 39219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-23	BI-11 (0-1)	Total/NA	Solid	Moisture	
860-19628-24	BI-11 (5-6)	Total/NA	Solid	Moisture	
860-19628-25	DUP-1-19-22	Total/NA	Solid	Moisture	
860-19628-28	BI-14 (0-1)	Total/NA	Solid	Moisture	
860-19628-29	BI-14 (5-6)	Total/NA	Solid	Moisture	
860-19628-30	BI-16 (0-1)	Total/NA	Solid	Moisture	
860-19628-31	BI-16 (5-6)	Total/NA	Solid	Moisture	
860-19628-32	BI-15 (0-1)	Total/NA	Solid	Moisture	
860-19628-33	BI-15 (5-6)	Total/NA	Solid	Moisture	
860-19628-34	BI-13 (0-1)	Total/NA	Solid	Moisture	
860-19628-35	BI-13 (5-6)	Total/NA	Solid	Moisture	
MB 860-39219/1	Method Blank	Total/NA	Solid	Moisture	

Analysis Batch: 39238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-36	BI-12 (0-1)	Total/NA	Solid	Moisture	
860-19628-37	BI-12 (5-6)	Total/NA	Solid	Moisture	
860-19628-38	BI-17 (0-1)	Total/NA	Solid	Moisture	
860-19628-39	BI-17 (5-6)	Total/NA	Solid	Moisture	
MB 860-39238/1	Method Blank	Total/NA	Solid	Moisture	
860-19628-36 DU	BI-12 (0-1)	Total/NA	Solid	Moisture	

Analysis Batch: 39306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-19	BI-9 (0-1)	Total/NA	Solid	Moisture	
860-19628-20	BI-9 (5-6)	Total/NA	Solid	Moisture	
860-19628-21	BI-10 (0-1)	Total/NA	Solid	Moisture	
860-19628-22	BI-10 (5-6)	Total/NA	Solid	Moisture	
860-19628-40	BI-18 (0-1)	Total/NA	Solid	Moisture	
MB 860-39306/1	Method Blank	Total/NA	Solid	Moisture	
860-19628-19 DU	BI-9 (0-1)	Total/NA	Solid	Moisture	

Prep Batch: 39824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	9012A	
860-19628-2	EB-01-18-22	Total/NA	Water	9012A	
860-19628-3	BI-1 (0-1)	Total/NA	Solid	9012A	
860-19628-4	BI-1 (5-6)	Total/NA	Solid	9012A	
860-19628-5	BI-2 (0-1)	Total/NA	Solid	9012A	
860-19628-6	BI-2 (5-6)	Total/NA	Solid	9012A	
860-19628-7	BI-3 (0-1)	Total/NA	Solid	9012A	
860-19628-8	BI-3 (5-6)	Total/NA	Solid	9012A	
860-19628-9	BI-4 (0-1)	Total/NA	Solid	9012A	

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QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

General Chemistry (Continued)

Prep Batch: 39824 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-10	BI-4 (5-6)	Total/NA	Solid	9012A	
860-19628-11	BI-5 (0-1)	Total/NA	Solid	9012A	
860-19628-12	BI-5 (5-6)	Total/NA	Solid	9012A	
MB 860-39824/30-A	Method Blank	Total/NA	Water	9012A	
MB 860-39824/37-A	Method Blank	Total/NA	Solid	9012A	
LCS 860-39824/31-A	Lab Control Sample	Total/NA	Water	9012A	
LCS 860-39824/38-A	Lab Control Sample	Total/NA	Solid	9012A	
LLCS 860-39824/32-A	Lab Control Sample	Total/NA	Water	9012A	
LLCS 860-39824/39-A	Lab Control Sample	Total/NA	Solid	9012A	
860-19628-1 MS	DUP-01-18-22	Total/NA	Solid	9012A	
860-19628-1 MSD	DUP-01-18-22	Total/NA	Solid	9012A	
860-19628-2 MS	EB-01-18-22	Total/NA	Water	9012A	
860-19628-2 MSD	EB-01-18-22	Total/NA	Water	9012A	
860-19628-11 MS	BI-5 (0-1)	Total/NA	Solid	9012A	
860-19628-11 MSD	BI-5 (0-1)	Total/NA	Solid	9012A	

Analysis Batch: 39874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-1	DUP-01-18-22	Total/NA	Solid	9012A	39824
860-19628-2	EB-01-18-22	Total/NA	Water	9012A	39824
860-19628-3	BI-1 (0-1)	Total/NA	Solid	9012A	39824
860-19628-4	BI-1 (5-6)	Total/NA	Solid	9012A	39824
860-19628-5	BI-2 (0-1)	Total/NA	Solid	9012A	39824
860-19628-6	BI-2 (5-6)	Total/NA	Solid	9012A	39824
860-19628-7	BI-3 (0-1)	Total/NA	Solid	9012A	39824
860-19628-8	BI-3 (5-6)	Total/NA	Solid	9012A	39824
860-19628-9	BI-4 (0-1)	Total/NA	Solid	9012A	39824
860-19628-10	BI-4 (5-6)	Total/NA	Solid	9012A	39824
860-19628-11	BI-5 (0-1)	Total/NA	Solid	9012A	39824
860-19628-12	BI-5 (5-6)	Total/NA	Solid	9012A	39824
MB 860-39824/30-A	Method Blank	Total/NA	Water	9012A	39824
MB 860-39824/37-A	Method Blank	Total/NA	Solid	9012A	39824
LCS 860-39824/31-A	Lab Control Sample	Total/NA	Water	9012A	39824
LCS 860-39824/38-A	Lab Control Sample	Total/NA	Solid	9012A	39824
LLCS 860-39824/32-A	Lab Control Sample	Total/NA	Water	9012A	39824
LLCS 860-39824/39-A	Lab Control Sample	Total/NA	Solid	9012A	39824
860-19628-1 MS	DUP-01-18-22	Total/NA	Solid	9012A	39824
860-19628-1 MSD	DUP-01-18-22	Total/NA	Solid	9012A	39824
860-19628-2 MS	EB-01-18-22	Total/NA	Water	9012A	39824
860-19628-2 MSD	EB-01-18-22	Total/NA	Water	9012A	39824
860-19628-11 MS	BI-5 (0-1)	Total/NA	Solid	9012A	39824
860-19628-11 MSD	BI-5 (0-1)	Total/NA	Solid	9012A	39824

Prep Batch: 40012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-13	BI-6 (0-1)	Total/NA	Solid	9012A	
860-19628-14	BI-6 (5-6)	Total/NA	Solid	9012A	
860-19628-15	BI-7 (0-1)	Total/NA	Solid	9012A	
860-19628-16	BI-7 (5-6)	Total/NA	Solid	9012A	
860-19628-17	BI-8 (0-1)	Total/NA	Solid	9012A	
860-19628-18	BI-8 (5-6)	Total/NA	Solid	9012A	

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QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

General Chemistry (Continued)

Prep Batch: 40012 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-24	BI-11 (5-6)	Total/NA	Solid	9012A	
860-19628-25	DUP-1-19-22	Total/NA	Solid	9012A	
860-19628-28	BI-14 (0-1)	Total/NA	Solid	9012A	
860-19628-29	BI-14 (5-6)	Total/NA	Solid	9012A	
860-19628-30	BI-16 (0-1)	Total/NA	Solid	9012A	
860-19628-31	BI-16 (5-6)	Total/NA	Solid	9012A	
860-19628-32	BI-15 (0-1)	Total/NA	Solid	9012A	
860-19628-33	BI-15 (5-6)	Total/NA	Solid	9012A	
860-19628-34	BI-13 (0-1)	Total/NA	Solid	9012A	
860-19628-35	BI-13 (5-6)	Total/NA	Solid	9012A	
860-19628-36	BI-12 (0-1)	Total/NA	Solid	9012A	
860-19628-37	BI-12 (5-6)	Total/NA	Solid	9012A	
860-19628-38	BI-17 (0-1)	Total/NA	Solid	9012A	
860-19628-39	BI-17 (5-6)	Total/NA	Solid	9012A	
860-19628-40	BI-18 (0-1)	Total/NA	Solid	9012A	
860-19628-41	BI-18 (5-6)	Total/NA	Solid	9012A	
860-19628-42	BI-19 (0-1)	Total/NA	Solid	9012A	
860-19628-43	BI-19 (5-6)	Total/NA	Solid	9012A	
860-19628-44	BI-20 (0-1)	Total/NA	Solid	9012A	
860-19628-45	BI-20 (5-6)	Total/NA	Solid	9012A	
860-19628-46	BI-21 (0-1)	Total/NA	Solid	9012A	
860-19628-47	BI-21 (5-6)	Total/NA	Solid	9012A	
860-19628-48	DUP-1-20-22	Total/NA	Solid	9012A	
MB 860-40012/16-A	Method Blank	Total/NA	Solid	9012A	
MB 860-40012/43-A	Method Blank	Total/NA	Solid	9012A	
LCS 860-40012/17-A	Lab Control Sample	Total/NA	Solid	9012A	
LCS 860-40012/44-A	Lab Control Sample	Total/NA	Solid	9012A	
LLCS 860-40012/18-A	Lab Control Sample	Total/NA	Solid	9012A	
LLCS 860-40012/45-A	Lab Control Sample	Total/NA	Solid	9012A	
860-19628-16 MS	BI-7 (5-6)	Total/NA	Solid	9012A	
860-19628-16 MSD	BI-7 (5-6)	Total/NA	Solid	9012A	
860-19628-32 MS	BI-15 (0-1)	Total/NA	Solid	9012A	
860-19628-32 MSD	BI-15 (0-1)	Total/NA	Solid	9012A	
860-19628-42 MS	BI-19 (0-1)	Total/NA	Solid	9012A	
860-19628-42 MSD	BI-19 (0-1)	Total/NA	Solid	9012A	

Analysis Batch: 40056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-13	BI-6 (0-1)	Total/NA	Solid	9012A	40012
860-19628-14	BI-6 (5-6)	Total/NA	Solid	9012A	40012
860-19628-15	BI-7 (0-1)	Total/NA	Solid	9012A	40012
860-19628-16	BI-7 (5-6)	Total/NA	Solid	9012A	40012
860-19628-17	BI-8 (0-1)	Total/NA	Solid	9012A	40012
860-19628-18	BI-8 (5-6)	Total/NA	Solid	9012A	40012
860-19628-24	BI-11 (5-6)	Total/NA	Solid	9012A	40012
860-19628-25	DUP-1-19-22	Total/NA	Solid	9012A	40012
860-19628-28	BI-14 (0-1)	Total/NA	Solid	9012A	40012
860-19628-29	BI-14 (5-6)	Total/NA	Solid	9012A	40012
860-19628-30	BI-16 (0-1)	Total/NA	Solid	9012A	40012
860-19628-31	BI-16 (5-6)	Total/NA	Solid	9012A	40012
860-19628-32	BI-15 (0-1)	Total/NA	Solid	9012A	40012

Eurofins Houston

QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

General Chemistry (Continued)

Analysis Batch: 40056 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-33	BI-15 (5-6)	Total/NA	Solid	9012A	40012
860-19628-34	BI-13 (0-1)	Total/NA	Solid	9012A	40012
860-19628-35	BI-13 (5-6)	Total/NA	Solid	9012A	40012
860-19628-36	BI-12 (0-1)	Total/NA	Solid	9012A	40012
860-19628-37	BI-12 (5-6)	Total/NA	Solid	9012A	40012
860-19628-38	BI-17 (0-1)	Total/NA	Solid	9012A	40012
860-19628-39	BI-17 (5-6)	Total/NA	Solid	9012A	40012
860-19628-40	BI-18 (0-1)	Total/NA	Solid	9012A	40012
860-19628-41	BI-18 (5-6)	Total/NA	Solid	9012A	40012
860-19628-42	BI-19 (0-1)	Total/NA	Solid	9012A	40012
860-19628-43	BI-19 (5-6)	Total/NA	Solid	9012A	40012
860-19628-44	BI-20 (0-1)	Total/NA	Solid	9012A	40012
860-19628-45	BI-20 (5-6)	Total/NA	Solid	9012A	40012
860-19628-46	BI-21 (0-1)	Total/NA	Solid	9012A	40012
860-19628-47	BI-21 (5-6)	Total/NA	Solid	9012A	40012
860-19628-48	DUP-1-20-22	Total/NA	Solid	9012A	40012
MB 860-40012/16-A	Method Blank	Total/NA	Solid	9012A	40012
MB 860-40012/43-A	Method Blank	Total/NA	Solid	9012A	40012
LCS 860-40012/17-A	Lab Control Sample	Total/NA	Solid	9012A	40012
LCS 860-40012/44-A	Lab Control Sample	Total/NA	Solid	9012A	40012
LLCS 860-40012/18-A	Lab Control Sample	Total/NA	Solid	9012A	40012
LLCS 860-40012/45-A	Lab Control Sample	Total/NA	Solid	9012A	40012
860-19628-16 MS	BI-7 (5-6)	Total/NA	Solid	9012A	40012
860-19628-16 MSD	BI-7 (5-6)	Total/NA	Solid	9012A	40012
860-19628-32 MS	BI-15 (0-1)	Total/NA	Solid	9012A	40012
860-19628-32 MSD	BI-15 (0-1)	Total/NA	Solid	9012A	40012
860-19628-42 MS	BI-19 (0-1)	Total/NA	Solid	9012A	40012
860-19628-42 MSD	BI-19 (0-1)	Total/NA	Solid	9012A	40012

Prep Batch: 40131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-19	BI-9 (0-1)	Total/NA	Solid	9012A	
860-19628-20	BI-9 (5-6)	Total/NA	Solid	9012A	
860-19628-21	BI-10 (0-1)	Total/NA	Solid	9012A	
860-19628-22	BI-10 (5-6)	Total/NA	Solid	9012A	
860-19628-23	BI-11 (0-1)	Total/NA	Solid	9012A	
860-19628-26	EB-1-19-22	Total/NA	Water	9012A	
860-19628-27	EB-1-20-22	Total/NA	Water	9012A	
MB 860-40131/17-A	Method Blank	Total/NA	Solid	9012A	
MB 860-40131/4-A	Method Blank	Total/NA	Water	9012A	
LCS 860-40131/18-A	Lab Control Sample	Total/NA	Solid	9012A	
LCS 860-40131/5-A	Lab Control Sample	Total/NA	Water	9012A	
LLCS 860-40131/19-A	Lab Control Sample	Total/NA	Solid	9012A	
LLCS 860-40131/6-A	Lab Control Sample	Total/NA	Water	9012A	
860-19628-16 MS	BI-7 (5-6)	Total/NA	Solid	9012A	
860-19628-16 MSD	BI-7 (5-6)	Total/NA	Solid	9012A	

Analysis Batch: 40208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-19	BI-9 (0-1)	Total/NA	Solid	9012A	40131
860-19628-20	BI-9 (5-6)	Total/NA	Solid	9012A	40131

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QC Association Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

General Chemistry (Continued)

Analysis Batch: 40208 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-19628-21	BI-10 (0-1)	Total/NA	Solid	9012A	40131
860-19628-22	BI-10 (5-6)	Total/NA	Solid	9012A	40131
860-19628-23	BI-11 (0-1)	Total/NA	Solid	9012A	40131
860-19628-26	EB-1-19-22	Total/NA	Water	9012A	40131
860-19628-27	EB-1-20-22	Total/NA	Water	9012A	40131
MB 860-40131/17-A	Method Blank	Total/NA	Solid	9012A	40131
MB 860-40131/4-A	Method Blank	Total/NA	Water	9012A	40131
LCS 860-40131/18-A	Lab Control Sample	Total/NA	Solid	9012A	40131
LCS 860-40131/5-A	Lab Control Sample	Total/NA	Water	9012A	40131
LLCS 860-40131/19-A	Lab Control Sample	Total/NA	Solid	9012A	40131
LLCS 860-40131/6-A	Lab Control Sample	Total/NA	Water	9012A	40131
860-19628-16 MS	BI-7 (5-6)	Total/NA	Solid	9012A	40131
860-19628-16 MSD	BI-7 (5-6)	Total/NA	Solid	9012A	40131

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: DUP-01-18-22

Lab Sample ID: 860-19628-1

Date Collected: 01/18/22 00:00

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39175	01/27/22 11:39	JM	XEN STF

Client Sample ID: DUP-01-18-22

Lab Sample ID: 860-19628-1

Date Collected: 01/18/22 00:00

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 78.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.95 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 19:22	ANP	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 20:40	DCL	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:18	DCL	XEN STF
Total/NA	Prep	7471A			.52 g	50 mL	38820	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 12:44	SHZ	XEN STF
Total/NA	Prep	9012A			0.5093 g	6 mL	39824	02/01/22 14:46	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:32	CM1	XEN STF

Client Sample ID: EB-01-18-22

Lab Sample ID: 860-19628-2

Date Collected: 01/18/22 12:30

Matrix: Water

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			38740	01/25/22 20:42	ANP	XEN STF
Total/NA	Prep	3010A			50 mL	50 mL	38889	01/26/22 08:30	MD	XEN STF
Total/NA	Analysis	6020A		1			39033	01/26/22 18:23	DCL	XEN STF
Total/NA	Prep	7470A			50 mL	50 mL	38899	01/26/22 09:25	AGR	XEN STF
Total/NA	Analysis	7470A		1			39004	01/26/22 15:01	SHZ	XEN STF
Total/NA	Prep	9012A			6 mL	6 mL	39824	02/01/22 14:46	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:22	CM1	XEN STF

Client Sample ID: BI-1 (0-1)

Lab Sample ID: 860-19628-3

Date Collected: 01/18/22 12:30

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39175	01/27/22 11:39	JM	XEN STF

Client Sample ID: BI-1 (0-1)

Lab Sample ID: 860-19628-3

Date Collected: 01/18/22 12:30

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.97 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 19:34	ANP	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-1 (0-1)

Lab Sample ID: 860-19628-3

Date Collected: 01/18/22 12:30

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.54 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 20:49	DCL	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:21	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	38820	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 12:46	SHZ	XEN STF
Total/NA	Prep	9012A			0.5165 g	6 mL	39824	02/01/22 14:46	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:39	CM1	XEN STF

Client Sample ID: BI-1 (5-6)

Lab Sample ID: 860-19628-4

Date Collected: 01/18/22 13:15

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39175	01/27/22 11:39	JM	XEN STF

Client Sample ID: BI-1 (5-6)

Lab Sample ID: 860-19628-4

Date Collected: 01/18/22 13:15

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.98 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 19:45	ANP	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 20:52	DCL	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:24	DCL	XEN STF
Total/NA	Prep	7471A			.55 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 12:54	SHZ	XEN STF
Total/NA	Prep	9012A			0.4970 g	6 mL	39824	02/01/22 14:46	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:41	CM1	XEN STF

Client Sample ID: BI-2 (0-1)

Lab Sample ID: 860-19628-5

Date Collected: 01/18/22 13:25

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39175	01/27/22 11:39	JM	XEN STF

Client Sample ID: BI-2 (0-1)

Lab Sample ID: 860-19628-5

Date Collected: 01/18/22 13:25

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.93 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1	0 mL	1.0 mL	38814	01/26/22 20:21	ANP	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-2 (0-1)

Lab Sample ID: 860-19628-5

Date Collected: 01/18/22 13:25

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 20:55	DCL	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:27	DCL	XEN STF
Total/NA	Prep	7471A			.55 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:01	SHZ	XEN STF
Total/NA	Prep	9012A			0.4868 g	6 mL	39824	02/01/22 14:46	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:42	CM1	XEN STF

Client Sample ID: BI-2 (5-6)

Lab Sample ID: 860-19628-6

Date Collected: 01/18/22 13:50

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39072	01/26/22 16:19	BM	XEN STF

Client Sample ID: BI-2 (5-6)

Lab Sample ID: 860-19628-6

Date Collected: 01/18/22 13:50

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.06 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 21:21	ANP	XEN STF
Total/NA	Prep	3051A			.5 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 20:58	DCL	XEN STF
Total/NA	Prep	3051A			.5 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:30	DCL	XEN STF
Total/NA	Prep	7471A			.54 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:02	SHZ	XEN STF
Total/NA	Prep	9012A			0.5132 g	6 mL	39824	02/01/22 14:56	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:44	CM1	XEN STF

Client Sample ID: BI-3 (0-1)

Lab Sample ID: 860-19628-7

Date Collected: 01/18/22 14:00

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39072	01/26/22 16:19	BM	XEN STF

Client Sample ID: BI-3 (0-1)

Lab Sample ID: 860-19628-7

Date Collected: 01/18/22 14:00

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.08 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 21:33	ANP	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-3 (0-1)

Lab Sample ID: 860-19628-7

Date Collected: 01/18/22 14:00

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.54 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 21:02	DCL	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:40	DCL	XEN STF
Total/NA	Prep	7471A			.50 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:04	SHZ	XEN STF
Total/NA	Prep	9012A			0.5175 g	6 mL	39824	02/01/22 14:56	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:45	CM1	XEN STF

Client Sample ID: BI-3 (5-6)

Lab Sample ID: 860-19628-8

Date Collected: 01/18/22 14:33

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39072	01/26/22 16:19	BM	XEN STF

Client Sample ID: BI-3 (5-6)

Lab Sample ID: 860-19628-8

Date Collected: 01/18/22 14:33

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.93 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 21:45	ANP	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 21:05	DCL	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:43	DCL	XEN STF
Total/NA	Prep	7471A			.58 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:05	SHZ	XEN STF
Total/NA	Prep	9012A			0.4999 g	6 mL	39824	02/01/22 14:56	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:46	CM1	XEN STF

Client Sample ID: BI-4 (0-1)

Lab Sample ID: 860-19628-9

Date Collected: 01/18/22 15:15

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39072	01/26/22 16:19	BM	XEN STF

Client Sample ID: BI-4 (0-1)

Lab Sample ID: 860-19628-9

Date Collected: 01/18/22 15:15

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.91 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 21:56	ANP	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-4 (0-1)

Lab Sample ID: 860-19628-9

Date Collected: 01/18/22 15:15

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 21:08	DCL	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:46	DCL	XEN STF
Total/NA	Prep	7471A			.51 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:06	SHZ	XEN STF
Total/NA	Prep	9012A			0.4865 g	6 mL	39824	02/01/22 14:56	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:48	CM1	XEN STF

Client Sample ID: BI-4 (5-6)

Lab Sample ID: 860-19628-10

Date Collected: 01/18/22 15:35

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39072	01/26/22 16:19	BM	XEN STF

Client Sample ID: BI-4 (5-6)

Lab Sample ID: 860-19628-10

Date Collected: 01/18/22 15:35

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.02 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 22:08	ANP	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 21:11	DCL	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:49	DCL	XEN STF
Total/NA	Prep	7471A			.56 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:11	SHZ	XEN STF
Total/NA	Prep	9012A			0.4911 g	6 mL	39824	02/01/22 14:56	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:49	CM1	XEN STF

Client Sample ID: BI-5 (0-1)

Lab Sample ID: 860-19628-11

Date Collected: 01/18/22 14:45

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39072	01/26/22 16:19	BM	XEN STF

Client Sample ID: BI-5 (0-1)

Lab Sample ID: 860-19628-11

Date Collected: 01/18/22 14:45

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.06 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 22:20	ANP	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-5 (0-1)

Date Collected: 01/18/22 14:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-11

Matrix: Solid

Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		10			39063	01/26/22 21:14	DCL	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	38954	01/26/22 12:05	PB	XEN STF
Total/NA	Analysis	6020A		100			39164	01/27/22 11:52	DCL	XEN STF
Total/NA	Prep	7471A			.51 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:12	SHZ	XEN STF
Total/NA	Prep	9012A			0.5224 g	6 mL	39824	02/01/22 14:56	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:51	CM1	XEN STF

Client Sample ID: BI-5 (5-6)

Date Collected: 01/18/22 13:05

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39072	01/26/22 16:19	BM	XEN STF

Client Sample ID: BI-5 (5-6)

Date Collected: 01/18/22 13:05

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-12

Matrix: Solid

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.07 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 22:32	ANP	XEN STF
Total/NA	Prep	3051A			.57 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 17:10	DCL	XEN STF
Total/NA	Prep	3051A			.57 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 17:28	DCL	XEN STF
Total/NA	Prep	7471A			.58 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:13	SHZ	XEN STF
Total/NA	Prep	9012A			0.5050 g	6 mL	39824	02/01/22 14:56	CM1	XEN STF
Total/NA	Analysis	9012A		1			39874	02/01/22 17:58	CM1	XEN STF

Client Sample ID: BI-6 (0-1)

Date Collected: 01/19/22 10:00

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-13

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39072	01/26/22 16:19	BM	XEN STF

Client Sample ID: BI-6 (0-1)

Date Collected: 01/19/22 10:00

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-13

Matrix: Solid

Percent Solids: 79.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.92 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 22:44	ANP	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-6 (0-1)

Date Collected: 01/19/22 10:00

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-13

Matrix: Solid

Percent Solids: 79.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.54 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 17:44	DCL	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 17:56	DCL	XEN STF
Total/NA	Prep	7471A			.52 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:15	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:32	CM1	XEN STF

Client Sample ID: BI-6 (5-6)

Date Collected: 01/19/22 10:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-14

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39175	01/27/22 11:39	JM	XEN STF

Client Sample ID: BI-6 (5-6)

Date Collected: 01/19/22 10:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-14

Matrix: Solid

Percent Solids: 93.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.95 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/26/22 22:56	ANP	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 17:47	DCL	XEN STF
Total/NA	Prep	7471A			.55 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:16	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:34	CM1	XEN STF

Client Sample ID: BI-7 (0-1)

Date Collected: 01/19/22 11:18

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39175	01/27/22 11:39	JM	XEN STF

Client Sample ID: BI-7 (0-1)

Date Collected: 01/19/22 11:18

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-15

Matrix: Solid

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.96 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 00:07	ANP	XEN STF
Total/NA	Prep	3051A			.52 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 17:50	DCL	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-7 (0-1)

Date Collected: 01/19/22 11:18

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-15

Matrix: Solid

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			.51 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:26	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:35	CM1	XEN STF

Client Sample ID: BI-7 (5-6)

Date Collected: 01/19/22 11:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-16

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39175	01/27/22 11:39	JM	XEN STF

Client Sample ID: BI-7 (5-6)

Date Collected: 01/19/22 11:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-16

Matrix: Solid

Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.02 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 00:19	ANP	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 17:53	DCL	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 18:06	DCL	XEN STF
Total/NA	Prep	7471A			.51 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:27	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:37	CM1	XEN STF

Client Sample ID: BI-8 (0-1)

Date Collected: 01/19/22 11:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39175	01/27/22 11:39	JM	XEN STF

Client Sample ID: BI-8 (0-1)

Date Collected: 01/19/22 11:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-17

Matrix: Solid

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.08 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 00:31	ANP	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 18:15	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:29	SHZ	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-8 (0-1)

Date Collected: 01/19/22 11:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-17

Matrix: Solid

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:41	CM1	XEN STF

Client Sample ID: BI-8 (5-6)

Date Collected: 01/19/22 12:05

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-18

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39175	01/27/22 11:39	JM	XEN STF

Client Sample ID: BI-8 (5-6)

Date Collected: 01/19/22 12:05

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-18

Matrix: Solid

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.97 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 00:43	ANP	XEN STF
Total/NA	Prep	3051A			.55 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 18:18	DCL	XEN STF
Total/NA	Prep	3051A			.55 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 18:34	DCL	XEN STF
Total/NA	Prep	7471A			.51 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:30	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:42	CM1	XEN STF

Client Sample ID: BI-9 (0-1)

Date Collected: 01/19/22 12:30

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39306	01/27/22 16:09	JM	XEN STF

Client Sample ID: BI-9 (0-1)

Date Collected: 01/19/22 12:30

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-19

Matrix: Solid

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.02 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 00:55	ANP	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 18:21	DCL	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 18:37	DCL	XEN STF
Total/NA	Prep	7471A			.54 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:31	SHZ	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-9 (0-1)

Date Collected: 01/19/22 12:30

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-19

Matrix: Solid

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			0.5 g	6 mL	40131	02/03/22 10:12	CM1	XEN STF
Total/NA	Analysis	9012A		1			40208	02/03/22 15:44	CM1	XEN STF

Client Sample ID: BI-9 (5-6)

Date Collected: 01/19/22 12:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39306	01/27/22 16:09	JM	XEN STF

Client Sample ID: BI-9 (5-6)

Date Collected: 01/19/22 12:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-20

Matrix: Solid

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.01 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 01:06	ANP	XEN STF
Total/NA	Prep	3051A			.57 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 18:24	DCL	XEN STF
Total/NA	Prep	3051A			.57 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 18:40	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:33	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 g	6 mL	40131	02/03/22 10:12	CM1	XEN STF
Total/NA	Analysis	9012A		1			40208	02/03/22 15:49	CM1	XEN STF

Client Sample ID: BI-10 (0-1)

Date Collected: 01/19/22 13:10

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-21

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39306	01/27/22 16:09	JM	XEN STF

Client Sample ID: BI-10 (0-1)

Date Collected: 01/19/22 13:10

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-21

Matrix: Solid

Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.97 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 01:18	ANP	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 18:27	DCL	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 18:43	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:34	SHZ	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-10 (0-1)

Date Collected: 01/19/22 13:10

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-21

Matrix: Solid

Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			0.5 g	6 mL	40131	02/03/22 10:12	CM1	XEN STF
Total/NA	Analysis	9012A		1			40208	02/03/22 15:50	CM1	XEN STF

Client Sample ID: BI-10 (5-6)

Date Collected: 01/19/22 13:40

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-22

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39306	01/27/22 16:09	JM	XEN STF

Client Sample ID: BI-10 (5-6)

Date Collected: 01/19/22 13:40

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-22

Matrix: Solid

Percent Solids: 91.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.92 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 01:54	ANP	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 18:52	DCL	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 19:08	DCL	XEN STF
Total/NA	Prep	7471A			.58 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:35	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 g	6 mL	40131	02/03/22 10:12	CM1	XEN STF
Total/NA	Analysis	9012A		1			40208	02/03/22 15:51	CM1	XEN STF

Client Sample ID: BI-11 (0-1)

Date Collected: 01/19/22 13:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-23

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-11 (0-1)

Date Collected: 01/19/22 13:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-23

Matrix: Solid

Percent Solids: 78.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.02 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 02:06	ANP	XEN STF
Total/NA	Prep	3051A			.55 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 18:55	DCL	XEN STF
Total/NA	Prep	3051A			.55 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 19:11	DCL	XEN STF
Total/NA	Prep	7471A			.57 g	50 mL	38821	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:37	SHZ	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-11 (0-1)

Date Collected: 01/19/22 13:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-23

Matrix: Solid

Percent Solids: 78.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			0.5 g	6 mL	40131	02/03/22 10:12	CM1	XEN STF
Total/NA	Analysis	9012A		1			40208	02/03/22 15:53	CM1	XEN STF

Client Sample ID: BI-11 (5-6)

Date Collected: 01/19/22 14:30

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-24

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-11 (5-6)

Date Collected: 01/19/22 14:30

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-24

Matrix: Solid

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.06 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 02:42	ANP	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 18:58	DCL	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 19:14	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:45	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 16:42	CM1	XEN STF

Client Sample ID: DUP-1-19-22

Date Collected: 01/19/22 00:00

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-25

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: DUP-1-19-22

Date Collected: 01/19/22 00:00

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-25

Matrix: Solid

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.98 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 02:53	ANP	XEN STF
Total/NA	Prep	3051A			.58 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 19:01	DCL	XEN STF
Total/NA	Prep	3051A			.58 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 19:17	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:55	SHZ	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: DUP-1-19-22

Lab Sample ID: 860-19628-25

Date Collected: 01/19/22 00:00

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 16:43	CM1	XEN STF

Client Sample ID: EB-1-19-22

Lab Sample ID: 860-19628-26

Date Collected: 01/19/22 10:00

Matrix: Water

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			38740	01/25/22 23:50	ANP	XEN STF
Total/NA	Prep	3010A			50 mL	50 mL	38889	01/26/22 08:30	MD	XEN STF
Total/NA	Analysis	6020A		1			39033	01/26/22 18:26	DCL	XEN STF
Total/NA	Prep	7470A			50 mL	50 mL	38899	01/26/22 09:25	AGR	XEN STF
Total/NA	Analysis	7470A		1			39004	01/26/22 15:10	SHZ	XEN STF
Total/NA	Prep	9012A			6 mL	6 mL	40131	02/03/22 10:12	CM1	XEN STF
Total/NA	Analysis	9012A		1			40208	02/03/22 15:33	CM1	XEN STF

Client Sample ID: EB-1-20-22

Lab Sample ID: 860-19628-27

Date Collected: 01/20/22 08:40

Matrix: Water

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1			38740	01/25/22 23:14	ANP	XEN STF
Total/NA	Prep	3010A			50 mL	50 mL	38889	01/26/22 08:30	MD	XEN STF
Total/NA	Analysis	6020A		1			39033	01/26/22 18:29	DCL	XEN STF
Total/NA	Prep	7470A			50 mL	50 mL	38899	01/26/22 09:25	AGR	XEN STF
Total/NA	Analysis	7470A		1			39004	01/26/22 15:12	SHZ	XEN STF
Total/NA	Prep	9012A			6 mL	6 mL	40131	02/03/22 10:12	CM1	XEN STF
Total/NA	Analysis	9012A		1			40208	02/03/22 15:35	CM1	XEN STF

Client Sample ID: BI-14 (0-1)

Lab Sample ID: 860-19628-28

Date Collected: 01/20/22 08:40

Matrix: Solid

Date Received: 01/25/22 12:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-14 (0-1)

Lab Sample ID: 860-19628-28

Date Collected: 01/20/22 08:40

Matrix: Solid

Date Received: 01/25/22 12:02

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.97 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 03:05	ANP	XEN STF
Total/NA	Prep	3051A			.51 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 19:05	DCL	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-14 (0-1)

Date Collected: 01/20/22 08:40

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-28

Matrix: Solid

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.51 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 19:20	DCL	XEN STF
Total/NA	Prep	7471A			.51 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:56	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 16:45	CM1	XEN STF

Client Sample ID: BI-14 (5-6)

Date Collected: 01/20/22 09:05

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-29

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-14 (5-6)

Date Collected: 01/20/22 09:05

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-29

Matrix: Solid

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.93 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 03:41	ANP	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 19:36	DCL	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 19:48	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:58	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 16:46	CM1	XEN STF

Client Sample ID: BI-16 (0-1)

Date Collected: 01/20/22 09:15

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-16 (0-1)

Date Collected: 01/20/22 09:15

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-30

Matrix: Solid

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.91 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 04:17	ANP	XEN STF
Total/NA	Prep	3051A			.52 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 19:29	DCL	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-16 (0-1)

Date Collected: 01/20/22 09:15

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-30

Matrix: Solid

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.52 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 19:42	DCL	XEN STF
Total/NA	Prep	7471A			.57 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 13:59	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 16:47	CM1	XEN STF

Client Sample ID: BI-16 (5-6)

Date Collected: 01/20/22 09:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-31

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-16 (5-6)

Date Collected: 01/20/22 09:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-31

Matrix: Solid

Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.97 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 04:29	ANP	XEN STF
Total/NA	Prep	3051A			.57 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 19:33	DCL	XEN STF
Total/NA	Prep	3051A			.57 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 19:45	DCL	XEN STF
Total/NA	Prep	7471A			.50 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:01	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 16:49	CM1	XEN STF

Client Sample ID: BI-15 (0-1)

Date Collected: 01/20/22 10:05

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-32

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-15 (0-1)

Date Collected: 01/20/22 10:05

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-32

Matrix: Solid

Percent Solids: 76.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.02 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 04:41	ANP	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		10			39252	01/27/22 19:39	DCL	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-15 (0-1)

Date Collected: 01/20/22 10:05

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-32

Matrix: Solid

Percent Solids: 76.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.54 g	50 mL	39003	01/26/22 16:03	PB	XEN STF
Total/NA	Analysis	6020A		100			39252	01/27/22 19:51	DCL	XEN STF
Total/NA	Prep	7471A			.52 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:02	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 16:50	CM1	XEN STF

Client Sample ID: BI-15 (5-6)

Date Collected: 01/20/22 10:40

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-33

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-15 (5-6)

Date Collected: 01/20/22 10:40

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-33

Matrix: Solid

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.08 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1	0 mL	1.0 mL	38814	01/27/22 04:53	ANP	XEN STF
Total/NA	Prep	3051A			.55 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 20:19	DCL	XEN STF
Total/NA	Prep	3051A			.55 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 10:55	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:03	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 16:57	CM1	XEN STF

Client Sample ID: BI-13 (0-1)

Date Collected: 01/20/22 10:50

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-34

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-13 (0-1)

Date Collected: 01/20/22 10:50

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-34

Matrix: Solid

Percent Solids: 77.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.06 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 05:04	ANP	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 20:41	DCL	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-13 (0-1)

Date Collected: 01/20/22 10:50

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-34

Matrix: Solid

Percent Solids: 77.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.53 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:05	DCL	XEN STF
Total/NA	Prep	7471A			.54 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:05	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 16:59	CM1	XEN STF

Client Sample ID: BI-13 (5-6)

Date Collected: 01/20/22 11:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-35

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39219	01/27/22 13:56	JM	XEN STF

Client Sample ID: BI-13 (5-6)

Date Collected: 01/20/22 11:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-35

Matrix: Solid

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.08 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 05:16	ANP	XEN STF
Total/NA	Prep	3051A			.52 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 20:44	DCL	XEN STF
Total/NA	Prep	3051A			.52 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:08	DCL	XEN STF
Total/NA	Prep	7471A			.52 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:06	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:00	CM1	XEN STF

Client Sample ID: BI-12 (0-1)

Date Collected: 01/20/22 11:50

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-36

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39238	01/27/22 14:42	BM	XEN STF

Client Sample ID: BI-12 (0-1)

Date Collected: 01/20/22 11:50

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-36

Matrix: Solid

Percent Solids: 74.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.07 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 05:28	ANP	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 20:47	DCL	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-12 (0-1)

Date Collected: 01/20/22 11:50

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-36

Matrix: Solid

Percent Solids: 74.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.53 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:11	DCL	XEN STF
Total/NA	Prep	7471A			.51 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:10	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:01	CM1	XEN STF

Client Sample ID: BI-12 (5-6)

Date Collected: 01/20/22 12:15

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-37

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39238	01/27/22 14:42	BM	XEN STF

Client Sample ID: BI-12 (5-6)

Date Collected: 01/20/22 12:15

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-37

Matrix: Solid

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.09 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 05:40	ANP	XEN STF
Total/NA	Prep	3051A			.51 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 20:51	DCL	XEN STF
Total/NA	Prep	3051A			.51 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:14	DCL	XEN STF
Total/NA	Prep	7471A			.50 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:17	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:03	CM1	XEN STF

Client Sample ID: BI-17 (0-1)

Date Collected: 01/20/22 13:50

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-38

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39238	01/27/22 14:42	BM	XEN STF

Client Sample ID: BI-17 (0-1)

Date Collected: 01/20/22 13:50

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-38

Matrix: Solid

Percent Solids: 76.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.91 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 05:52	ANP	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 20:54	DCL	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-17 (0-1)

Date Collected: 01/20/22 13:50

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-38

Matrix: Solid

Percent Solids: 76.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.56 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:17	DCL	XEN STF
Total/NA	Prep	7471A			.57 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:19	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:04	CM1	XEN STF

Client Sample ID: BI-17 (5-6)

Date Collected: 01/20/22 14:10

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-39

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39238	01/27/22 14:42	BM	XEN STF

Client Sample ID: BI-17 (5-6)

Date Collected: 01/20/22 14:10

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-39

Matrix: Solid

Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.02 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 06:04	ANP	XEN STF
Total/NA	Prep	3051A			.5 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 20:57	DCL	XEN STF
Total/NA	Prep	7471A			.52 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:20	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:06	CM1	XEN STF

Client Sample ID: BI-18 (0-1)

Date Collected: 01/20/22 14:25

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-40

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39306	01/27/22 16:09	JM	XEN STF

Client Sample ID: BI-18 (0-1)

Date Collected: 01/20/22 14:25

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-40

Matrix: Solid

Percent Solids: 70.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.97 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 07:15	ANP	XEN STF
Total/NA	Prep	3051A			.51 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 21:00	DCL	XEN STF
Total/NA	Prep	3051A			.51 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:20	DCL	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-18 (0-1)

Date Collected: 01/20/22 14:25

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-40

Matrix: Solid

Percent Solids: 70.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			.50 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:21	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:07	CM1	XEN STF

Client Sample ID: BI-18 (5-6)

Date Collected: 01/20/22 14:40

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-41

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39148	01/27/22 09:21	JM	XEN STF

Client Sample ID: BI-18 (5-6)

Date Collected: 01/20/22 14:40

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-41

Matrix: Solid

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			5.06 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 07:27	ANP	XEN STF
Total/NA	Prep	3051A			.51 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 21:03	DCL	XEN STF
Total/NA	Prep	7471A			.54 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:26	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:08	CM1	XEN STF

Client Sample ID: BI-19 (0-1)

Date Collected: 01/20/22 14:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-42

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39148	01/27/22 09:21	JM	XEN STF

Client Sample ID: BI-19 (0-1)

Date Collected: 01/20/22 14:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-42

Matrix: Solid

Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.98 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 08:03	ANP	XEN STF
Total/NA	Prep	3051A			.55 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 21:06	DCL	XEN STF
Total/NA	Prep	3051A			.55 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:23	DCL	XEN STF
Total/NA	Prep	7471A			.54 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:27	SHZ	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-19 (0-1)

Date Collected: 01/20/22 14:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-42

Matrix: Solid

Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:17	CM1	XEN STF

Client Sample ID: BI-19 (5-6)

Date Collected: 01/20/22 15:20

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-43

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39148	01/27/22 09:21	JM	XEN STF

Client Sample ID: BI-19 (5-6)

Date Collected: 01/20/22 15:20

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-43

Matrix: Solid

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.93 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 08:14	ANP	XEN STF
Total/NA	Prep	3051A			.52 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 21:09	DCL	XEN STF
Total/NA	Prep	3051A			.52 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:33	DCL	XEN STF
Total/NA	Prep	7471A			.56 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:28	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:21	CM1	XEN STF

Client Sample ID: BI-20 (0-1)

Date Collected: 01/20/22 15:30

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-44

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39148	01/27/22 09:21	JM	XEN STF

Client Sample ID: BI-20 (0-1)

Date Collected: 01/20/22 15:30

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-44

Matrix: Solid

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.94 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 08:26	ANP	XEN STF
Total/NA	Prep	3051A			.57 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 21:19	DCL	XEN STF
Total/NA	Prep	3051A			.57 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:36	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:30	SHZ	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-20 (0-1)

Date Collected: 01/20/22 15:30

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-44

Matrix: Solid

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:23	CM1	XEN STF

Client Sample ID: BI-20 (5-6)

Date Collected: 01/20/22 15:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-45

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39148	01/27/22 09:21	JM	XEN STF

Client Sample ID: BI-20 (5-6)

Date Collected: 01/20/22 15:45

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-45

Matrix: Solid

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.96 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 09:02	ANP	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 21:22	DCL	XEN STF
Total/NA	Prep	3051A			.54 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:39	DCL	XEN STF
Total/NA	Prep	7471A			.52 g	50 mL	38869	01/26/22 08:20	AGR	XEN STF
Total/NA	Analysis	7471A		1			38984	01/26/22 14:31	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:24	CM1	XEN STF

Client Sample ID: BI-21 (0-1)

Date Collected: 01/20/22 15:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-46

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39148	01/27/22 09:21	JM	XEN STF

Client Sample ID: BI-21 (0-1)

Date Collected: 01/20/22 15:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-46

Matrix: Solid

Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.92 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 09:14	ANP	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 21:25	DCL	XEN STF
Total/NA	Prep	3051A			.53 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:42	DCL	XEN STF
Total/NA	Prep	7471A			.53 g	50 mL	39060	01/27/22 08:50	AGR	XEN STF
Total/NA	Analysis	7471A		1			39201	01/27/22 13:07	SHZ	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Client Sample ID: BI-21 (0-1)

Date Collected: 01/20/22 15:55

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-46

Matrix: Solid

Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:25	CM1	XEN STF

Client Sample ID: BI-21 (5-6)

Date Collected: 01/20/22 16:15

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-47

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39148	01/27/22 09:21	JM	XEN STF

Client Sample ID: BI-21 (5-6)

Date Collected: 01/20/22 16:15

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-47

Matrix: Solid

Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.97 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 09:26	ANP	XEN STF
Total/NA	Prep	3051A			.51 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 21:28	DCL	XEN STF
Total/NA	Prep	7471A			.54 g	50 mL	39060	01/27/22 08:50	AGR	XEN STF
Total/NA	Analysis	7471A		1			39201	01/27/22 13:17	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:30	CM1	XEN STF

Client Sample ID: DUP-1-20-22

Date Collected: 01/20/22 00:00

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-48

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			39148	01/27/22 09:21	JM	XEN STF

Client Sample ID: DUP-1-20-22

Date Collected: 01/20/22 00:00

Date Received: 01/25/22 12:02

Lab Sample ID: 860-19628-48

Matrix: Solid

Percent Solids: 75.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	300_Prep			4.92 g	50 mL	39027	01/26/22 10:18	ANP	XEN STF
Total/NA	Analysis	9056A		1			38814	01/27/22 09:38	ANP	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		10			40068	02/02/22 21:31	DCL	XEN STF
Total/NA	Prep	3051A			.56 g	50 mL	39241	01/27/22 16:46	PB	XEN STF
Total/NA	Analysis	6020A		100			40147	02/03/22 11:45	DCL	XEN STF
Total/NA	Prep	7471A			.52 g	50 mL	39060	01/27/22 08:50	AGR	XEN STF
Total/NA	Analysis	7471A		1			39201	01/27/22 13:18	SHZ	XEN STF
Total/NA	Prep	9012A			0.5 mL	6 mL	40012	02/02/22 14:57	CM1	XEN STF
Total/NA	Analysis	9012A		1			40056	02/02/22 17:31	CM1	XEN STF

Eurofins Houston

Lab Chronicle

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Laboratory References:
XEN STF = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

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Accreditation/Certification Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	21-038-0	08-04-22
Florida	NELAP	E871002	06-30-22
Louisiana	NELAP	03054	06-30-22
Oklahoma	State	1306	08-31-22
Texas	NELAP	T104704215-21-44	06-30-22
Texas	TCEQ Water Supply	T104704215	06-30-22

Method Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	XEN STF
6020A	Metals (ICP/MS)	SW846	XEN STF
7470A	Mercury (CVAA)	SW846	XEN STF
7471A	Mercury (CVAA)	SW846	XEN STF
9012A	Cyanide, Total and/or Amenable	SW846	XEN STF
Moisture	Percent Moisture	EPA	XEN STF
300_Prep	Anions, Ion Chromatography, 10% Wt/Vol	MCAWW	XEN STF
3010A	Preparation, Total Metals	SW846	XEN STF
3051A	Preparation, Metals, Microwave Assisted	SW846	XEN STF
7470A	Preparation, Mercury	SW846	XEN STF
7471A	Preparation, Mercury	SW846	XEN STF
9012A	Cyanide, Total and/or Amenable, Distillation	SW846	XEN STF

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XEN STF = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Eurofins Houston

Sample Summary

Client: Trihydro Corporation
Project/Site: Marathon Gallup Refinery Soils

Job ID: 860-19628-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-19628-1	DUP-01-18-22	Solid	01/18/22 00:00	01/25/22 12:02
860-19628-2	EB-01-18-22	Water	01/18/22 12:30	01/25/22 12:02
860-19628-3	BI-1 (0-1)	Solid	01/18/22 12:30	01/25/22 12:02
860-19628-4	BI-1 (5-6)	Solid	01/18/22 13:15	01/25/22 12:02
860-19628-5	BI-2 (0-1)	Solid	01/18/22 13:25	01/25/22 12:02
860-19628-6	BI-2 (5-6)	Solid	01/18/22 13:50	01/25/22 12:02
860-19628-7	BI-3 (0-1)	Solid	01/18/22 14:00	01/25/22 12:02
860-19628-8	BI-3 (5-6)	Solid	01/18/22 14:33	01/25/22 12:02
860-19628-9	BI-4 (0-1)	Solid	01/18/22 15:15	01/25/22 12:02
860-19628-10	BI-4 (5-6)	Solid	01/18/22 15:35	01/25/22 12:02
860-19628-11	BI-5 (0-1)	Solid	01/18/22 14:45	01/25/22 12:02
860-19628-12	BI-5 (5-6)	Solid	01/18/22 13:05	01/25/22 12:02
860-19628-13	BI-6 (0-1)	Solid	01/19/22 10:00	01/25/22 12:02
860-19628-14	BI-6 (5-6)	Solid	01/19/22 10:55	01/25/22 12:02
860-19628-15	BI-7 (0-1)	Solid	01/19/22 11:18	01/25/22 12:02
860-19628-16	BI-7 (5-6)	Solid	01/19/22 11:45	01/25/22 12:02
860-19628-17	BI-8 (0-1)	Solid	01/19/22 11:55	01/25/22 12:02
860-19628-18	BI-8 (5-6)	Solid	01/19/22 12:05	01/25/22 12:02
860-19628-19	BI-9 (0-1)	Solid	01/19/22 12:30	01/25/22 12:02
860-19628-20	BI-9 (5-6)	Solid	01/19/22 12:55	01/25/22 12:02
860-19628-21	BI-10 (0-1)	Solid	01/19/22 13:10	01/25/22 12:02
860-19628-22	BI-10 (5-6)	Solid	01/19/22 13:40	01/25/22 12:02
860-19628-23	BI-11 (0-1)	Solid	01/19/22 13:55	01/25/22 12:02
860-19628-24	BI-11 (5-6)	Solid	01/19/22 14:30	01/25/22 12:02
860-19628-25	DUP-1-19-22	Solid	01/19/22 00:00	01/25/22 12:02
860-19628-26	EB-1-19-22	Water	01/19/22 10:00	01/25/22 12:02
860-19628-27	EB-1-20-22	Water	01/20/22 08:40	01/25/22 12:02
860-19628-28	BI-14 (0-1)	Solid	01/20/22 08:40	01/25/22 12:02
860-19628-29	BI-14 (5-6)	Solid	01/20/22 09:05	01/25/22 12:02
860-19628-30	BI-16 (0-1)	Solid	01/20/22 09:15	01/25/22 12:02
860-19628-31	BI-16 (5-6)	Solid	01/20/22 09:55	01/25/22 12:02
860-19628-32	BI-15 (0-1)	Solid	01/20/22 10:05	01/25/22 12:02
860-19628-33	BI-15 (5-6)	Solid	01/20/22 10:40	01/25/22 12:02
860-19628-34	BI-13 (0-1)	Solid	01/20/22 10:50	01/25/22 12:02
860-19628-35	BI-13 (5-6)	Solid	01/20/22 11:45	01/25/22 12:02
860-19628-36	BI-12 (0-1)	Solid	01/20/22 11:50	01/25/22 12:02
860-19628-37	BI-12 (5-6)	Solid	01/20/22 12:15	01/25/22 12:02
860-19628-38	BI-17 (0-1)	Solid	01/20/22 13:50	01/25/22 12:02
860-19628-39	BI-17 (5-6)	Solid	01/20/22 14:10	01/25/22 12:02
860-19628-40	BI-18 (0-1)	Solid	01/20/22 14:25	01/25/22 12:02
860-19628-41	BI-18 (5-6)	Solid	01/20/22 14:40	01/25/22 12:02
860-19628-42	BI-19 (0-1)	Solid	01/20/22 14:45	01/25/22 12:02
860-19628-43	BI-19 (5-6)	Solid	01/20/22 15:20	01/25/22 12:02
860-19628-44	BI-20 (0-1)	Solid	01/20/22 15:30	01/25/22 12:02
860-19628-45	BI-20 (5-6)	Solid	01/20/22 15:45	01/25/22 12:02
860-19628-46	BI-21 (0-1)	Solid	01/20/22 15:55	01/25/22 12:02
860-19628-47	BI-21 (5-6)	Solid	01/20/22 16:15	01/25/22 12:02
860-19628-48	DUP-1-20-22	Solid	01/20/22 00:00	01/25/22 12:02

Eurofins Xenco, Stafford

4145 Greenbriar Dr
Stafford, TX 77477
Phone (281) 240-4200

Chain of Custody Record



Environment Testing America

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Environment Testing
America

Inco, Stafford

Chain of Custody Record

Jrilar Dr
Jrd, TX 77477
Phone (281) 240-4200

Client Information		Sampler	Lab File:	Carrier Tracking Note:	COG No:
Client Contact: Mackenzie Swift		Phone:	Kudchadkar Sachin G		860-7384-2619.1
Company: Trihydro Corporation			F-Mail: Sachin.Kudchadkar@Eurofins.com	State of Origin:	Page: Page 1 of 5
Address: 1252 Commerce Drive		Due Date Requested:	Analysis Requested		
City: Laramie		TAT Requested (days):			
State, Zip: WY 82070		Compliance Project: ☐ Yes ☒ No			
Phone:		PO #:			
Email: triswift@trihydro.com		WO #:			
Project Name: Marathon Galling Refinery Soils		Project #: 86002894			
Site:		SSOW#:			
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Hydrocarbons, Metals, Organics, etc.)	Field Filtered Sample (Yes/No)
EB-01-18-22	1-18-22	12:30			☒
BI-1 (0-1')	1-18-22	12:30	G	S	6020A, 7471A, - Metals
BI-1 (5-6')	1-18-22	13:15	G	S	9012A Total Cyanide
BI-2 (0-1')	1-18-22	13:25	G	S	9056A_ORGFM_28D Chloride and Fluoride
BI-2 (5-6')	1-18-22	13:50	G	S	moisture
BI-3 (0-1')	1-18-22	14:00	G	S	
BI-3 (5-6')	1-18-22	14:33	G	S	
BI-4 (0-1')	1-18-22	15:15	G	S	
BI-4 (5-6')	1-18-22	15:35	G	S	
BI-5 (0-1')	1-18-22	14:45	G	S	
BI-5 (5-6')	1-18-22	13:05	G	S	
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For
Deliverable Requested: I, II, III, IV Other (Specify)					Special Instructions/OC Requirements:
Empty Kit Relinquished by:					Method of Shipment
Relinquished by: Alamo Tyg		Date/Time: 1-24-22 10:00	Company: EETA	Received by: M. J. J.	Date/Time: 1/24/22 10:00
Relinquished by: M. J. J.		Date/Time: 1/24/22 10:00	Company: EETA	Received by: M. J. J.	Date/Time: 1/24/22 10:00
Custody Seals Intact: ☒ Yes ☐ No					Custody Seal No.
Cooler Temperature(s) °C and Other Remarks:					ON ICE 4.8°

Special Instructions/Note:

Preservation Codes:

A. HCL	M. Hexane
B. NaOH	N. None
C. Zn Acetate	O. AsHAc2
D. Nitric Acid	P. Na2CO3
E. NaHSO4	Q. Na2SO3
F. MeOH	R. Na2S2O3
G. Anion	S. H2SO4
H. Ascorbic Acid	T. TSP Dodecylphosphate
I. Ice	U. Acetone
J. DI Water	V. MCAA
K. EDTA	W. pH 4.5
L. EDA	Z. other (Specify)

Other:

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4745 Greenbriar Dr
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Phone (281) 240-4200

Chain of Custody Record

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Environment Testing
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Client Information		Sampler		Lab P/N:		Kudchadkar Sachin G		Carrier Tracking No(s):		COC No:	
Client Contact: Mackensie Swift		Phone:		E-Mail:		Sachin.Kudchadkar@Eurofins.com		State of Origin:		860-7584-2619, 1	
Company: Tithydro Corporation		PMSID:		Job #:		Page 1 of 5		Page 1 of 5		Page 1 of 5	
Address: 1252 Commerce Drive		Due Date Requested:		Analysis Requested							
City: Laramie		TAT Requested (days):									
State, Zip: WY 82070		Compliance Project: ☐ Yes ☐ No									
Phone:		PO #:									
Email: mswift@tithydro.com		WFO #:									
Project Name: Marathon Gallup Refinery Soils		Project #: 86002694									
Site:		SSOW#:									
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab, BT=Stream, Pond)		Matrix (Organic, Inorganic, Metals, Pesticides, PCBs, PAHs)		Field Filtered Sample (Yes or No)	
BI-6 (6-1')		1-19-22		10:00		G		S		6020A, 7471A, Metals	
BI-6 (5-6')		1-19-22		10:55		G		S		9012A - Total Cyanide	
BI-7 (0-1')		1-19-22		11:18		G		S		9066A_ORGFM_28D Chloride and Fluoride	
BI-7 (5-6')		1-19-22		11:45		G		S		moisture	
BI-8 (0-1')		1-19-22		11:55		G		S			
BI-8 (5-6')		1-19-22		12:05		G		S			
BI-9 (0-1')		1-19-22		12:30		G		S			
BI-9 (5-6')		1-19-22		12:55		G		S			
BI-10 (0-1')		1-19-22		13:10		G		S			
BI-10 (5-6')		1-19-22		13:40		G		S			
BI-11 (0-1')		1-19-22		13:55		G		S			
Possible Hazard Identification		☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological									
Deliverable Requested: I, II, III, IV Other (specify)											
Empty Kit Relinquished by:		Date:		Time:							
Relinquished by: <i>Sto-26</i>		Date/Time: 1-24-22 10:00		Company: EETA		Received by: <i>Wade</i>		Date/Time: 1/24/22 10:00		Company: EETA	
Relinquished by: <i>Sto-26</i>		Date/Time: 1/24/22 10:00		Company: EETA		Received by: <i>Wade</i>		Date/Time: 1/24/22 10:00		Company: EETA	
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.				Cooler Temperature(s) °C and Other Remarks:					

Special Instructions/Note:

Eurofins Xenco, Stafford

45 Greenbriar Dr
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Chain of Custody Record



Environment Testing America

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Stafford, TX 77477
Phone (281) 240-4200

Chain of Custody Record



Environment Testing
America

Client Information				Sampler	Lab File:	Carrier Tracking No(s):	Eurofins No:	
Client Contact: Mackenzie Swift				Phone:	Kudchadkar Sachin G		860-7584-2619.1	
Company: Tritydro Corporation					E-Mail: Sachin.Kudchadkar@Eurofins.com	State of Origin:	Page: 1 of 5	
Address: 1252 Commerce Drive				Due Date Requested:	Job #:			
City: Laramie				TAT Requested (days):	Preservation Codes:			
State, Zip: WY 82070				Compliance Project: A Yes A No	A. HCL B. NaOH C. Zn Acetate D. Nitric Acid E. NaHSO4 F. MeOH G. Amthor H. Ascorbic Acid I. Ice J. DI Water K. EDTA L. EDA M. Hexane N. None O. AsHClO2 P. Na2OAS Q. Na2SO3 R. Na2S2O3 S. H2SO4 T. TSP Dodecahydrate U. Acetone V. MeCN W. pH 4-5 Z. other (specify)			
Phone:				PO #:	Other:			
Email: msmit@tritydro.com				MO #:				
Project Name: Marathon Gallup Refinery Soils				Project #:				
Site: SSOW#:				86002694				
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (M=soil, D=solid, O=liquid)	Field Filtered Sample (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
EB-1-20 22	1-20-22	8:40	G	S				
BI-14 (0-1')	1-20-22	8:46	G	S				
BI-14 (5-6')	1-20-22	9:05	G	S				
BI-16 (0-1')	1-20-22	9:15	G	S				
BI-16 (5-6')	1-20-22	9:55	G	S				
BI-15 (0-1')	1-20-22	10:05	G	S				
BI-15 (5-6')	1-20-22	10:40	G	S				
BI-13 (0-1')	1-20-22	10:50	G	S				
BI-13 (5-6')	1-20-22	11:45	G	S				
BI-12 (0-1')	1-20-22	11:50	G	S				
BI-12 (5-6')	1-20-22	12:15	G	S				
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological				☐ Return To Client ☐ Disposal By Lab ☐ Archive For				Months
Deliverable Requested: I, II, III, IV Other (specify)				Special Instructions/QC Requirements:				
Empty Kit Relinquished by:				Date:	Time:	Method of Shipment:		
Relinquished by: H. L. L. Tye				Date/Time: 1-24-22 10:06	Company: EETM	Received by: M. L. L.		Date/Time: 1/24/22 10:00
Relinquished by: M. L. L.				Date/Time: 1/24/22	Company: EETM	Received by: M. L. L.		Date/Time: 1/24/22 10:00
Custody Seals Intact: A Yes A No				Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:			

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Eurofins Xenco, Stafford

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Phone (281) 240-4200

Chain of Custody Record

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America

Client Information		Sampler		Lab Pk:		Carter Tracking No(s):		COC No:	
Client Contact: Mckenzie Swift		Phone:		Kudchadkar Sachin G		State of Origin:		860-7584-2619, 1	
Company: Tithydro Corporation		PUSID:		E-Mail: Sachin.Kudchadkar@Eurofinsel.com		Page 1 of 5		Page 1 of 5	
Address: 1252 Commerce Drive		Due Date Requested:		Analysis Requested		Job #:		Preservation Codes:	
City:		TAT Requested (days):						A HCL B NaOH C Zn Acetate D Nitric Acid E NaHSO4 F MeOH G Amphot H Acetic Acid I Ice J DI Water K EDTA L EDA M Hexane N None O AsnO2 P Na2O4S Q Na2SO3 R Na2S2O3 S H2SO4 T TSP Dodecahydrate U Acetone V MCAA W pH 4-5 Z other (specify)	
Laraine		Compliance Project: A Yes A No							
State Zip: WY 82070		PO #:							
Phone:		WC #:							
Email: mswift@tithydro.com		Project #:							
Project Name: Marathon Gallup Refinery Soils		SSON#:							
Site:									
Sample Identification		Sample Date		Sample Type		Matrix		Field Filtered/Sample (Yes or No)	
BI-17(0-1')		1-20-22 13:50		G		S		6020A, 7471A, Metals	
BI-17(5-6')		1-20-22 14:10		G		S		9012A - Total Cyanide	
BI-18(0-1')		1-20-22 14:25		G		S		9056A_ORGFM_20D - Chloride and Fluoride	
BI-18(5-6')		1-20-22 14:40		G		S		moisture	
BI-19(0-1')		1-20-22 14:45		G		S			
BI-19(5-6')		1-20-22 15:20		G		S			
BI-20(0-1')		1-20-22 15:30		G		S			
BI-20(5-6')		1-20-22 15:45		G		S			
BI-21(0-1')		1-20-22 15:55		G		S			
BI-21(5-6')		1-20-22 16:15		G		S			
DWP-1-20-22		1-20-22		G		S			
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client		Disposal By Lab		Archive For	
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		☐ Return To Client ☐ Disposal By Lab ☐ Archive For						Months	
Deliverable Requested: I, II, III, IV Other (specify)		Special Instructions/QC Requirements:						ON FILE 6.0°	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: Hlarin T-y		Date/Time: 1-24-22 10:40		Company: ECTA		Received by: Mckenzie		Date/Time: 1/24/22 10:00	
Relinquished by: Mckenzie		Date/Time: 1/24/22		Company: ECTA		Received by: Mckenzie		Date/Time: 1/24/22 10:00	
Relinquished by: Mckenzie		Date/Time: 1/24/22		Company: ECTA		Received by: Mckenzie		Date/Time: 1/24/22 10:00	
Custody Seals Intact:		Custody Seal No.		Cooler Temperature(s) C and Other Remarks:					
A Yes A No									

Login Sample Receipt Checklist

Client: Trihydro Corporation

Job Number: 860-19628-1

Login Number: 19628

List Source: Eurofins Houston

List Number: 1

Creator: Torrez, Lisandra

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Received a set of Trip Blank broken
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

Appendix C – Data Validation Report



Tier II Data Validation Report Summary

Client: Marathon Oil	Laboratory: Eurofins Houston
Project Name: Western Refining Southwest, Background Soils	Sample Matrix: Soil
Project Number: 697-098-001 Task: 0002	Sample Start Date: 01/18/2022
Date Validated: 03/17/2022	Sample End Date: 01/20/2022
Parameters Included: - Anions by Environmental Protection Agency (EPA) Test Methods for Evaluating Solid Waste (SW-846) Method 9056A - Total Metals by SW-846 Method 6020A - Total Mercury by SW-846 Methods 7470A and 7471A - Total Cyanide by SW-846 Method 9012A - Percent Moisture by EPA Method Moisture	
Laboratory Project ID: 860-19628-1	
Data Validator: Daran O'Hollearn, Lead Project Scientist	
Reviewer: Mike Phillips, Senior Chemist	

DATA EVALUATION CRITERIA SUMMARY

A Tier II Data Validation was performed by Trihydro Corporation's Chemical Data Evaluation Services Group on the analytical data report packages generated by Eurofins Houston of Stafford, Texas, evaluating samples from the Marathon Oil site, located in Gallup, New Mexico.

Precision, accuracy, method compliance, and completeness of this data package were assessed during this data review. Precision was determined by evaluating the calculated relative percent difference (RPD) values from:

- Field duplicate pairs
- Matrix spike (MS) and matrix spike duplicate (MSD) pairs
- Laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) pairs

Laboratory accuracy was established by reviewing the demonstrated percent recoveries (%R) of the following items to verify that data are not biased.

- MS/MSD samples
- LCS/LCSD samples

Field accuracy was established by collecting and analyzing the following samples to monitor for possible ambient or cross contamination during sampling and transportation.

- Equipment blanks

Method compliance was established by reviewing sample integrity, holding times, detection limits, laboratory blanks, initial and continuing calibrations (where applicable), and the LCS/LCSD percent recoveries against method-specific requirements.





Tier II Data Validation Report Summary

Completeness was evaluated by determining the overall ratio of the number of samples and analyses planned versus the number of samples with valid analyses. Determination of completeness included a review of the chain-of-custody (CoC), laboratory analytical methods, and other laboratory and field documents associated with this analytical data set.

SAMPLE NUMBERS TABLE

Client Sample ID	Laboratory Sample Number
DUP-01-18-22	860-19628-1
EB-01-18-22	860-19628-2
BI-1 (0-1)	860-19628-3
BI-1 (5-6)	860-19628-4
BI-2 (0-1)	860-19628-5
BI-2 (5-6)	860-19628-6
BI-3 (0-1)	860-19628-7
BI-3 (5-6)	860-19628-8
BI-4 (0-1)	860-19628-9
BI-4 (5-6)	860-19628-10
BI-5 (0-1)	860-19628-11
BI-5 (5-6)	860-19628-12
BI-6 (0-1)	860-19628-13
BI-6 (5-6)	860-19628-14
BI-7 (0-1)	860-19628-15
BI-7 (5-6)	860-19628-16
BI-8 (0-1)	860-19628-17
BI-8 (5-6)	860-19628-18
BI-9 (0-1)	860-19628-19
BI-9 (5-6)	860-19628-20
BI-10 (0-1)	860-19628-21
BI-10 (5-6)	860-19628-22
BI-11 (0-1)	860-19628-23
BI-11 (5-6)	860-19628-24
DUP-1-19-22	860-19628-25
EB-1-19-22	860-19628-26
EB-1-20-22	860-19628-27
BI-14 (0-1)	860-19628-28
BI-14 (5-6)	860-19628-29
Client Sample ID	Laboratory Sample Number



**Tier II Data Validation Report Summary**

BI-16 (0-1)	860-19628-30
BI-16 (5-6)	860-19628-31
BI-15 (0-1)	860-19628-32
BI-15 (5-6)	860-19628-33
BI-13 (0-1)	860-19628-34
BI-13 (5-6)	860-19628-35
BI-12 (0-1)	860-19628-36
BI-12 (5-6)	860-19628-37
BI-17 (0-1)	860-19628-38
BI-17 (5-6)	860-19628-39
BI-18 (0-1)	860-19628-40
BI-18 (5-6)	860-19628-41
BI-19 (0-1)	860-19628-42
BI-19 (5-6)	860-19628-43
BI-20 (0-1)	860-19628-44
BI-20 (5-6)	860-19628-45
BI-21 (0-1)	860-19628-46
BI-21 (5-6)	860-19628-47
DUP-1-20-22	860-19628-48



Tier II Data Validation Report Summary

The laboratory data were reviewed to evaluate compliance with the methods and the quality of the reported data. Assessment of CoC completeness is included in Item 3 of the Data Validation Checklist. A check mark (✓) indicates that the referenced validation criteria were deemed acceptable, whereas a crossed circle (⊗) indicates validation criteria for which the data have been qualified by the data validator. An empty circle (○) indicates that the specified criterion does not apply to the reviewed data. Details are noted in the tables below.

Validation Criteria

- ✓ Data Completeness
- ✓ CoC Documentation (Item 3)
- ⊗ Holding Times and Preservation (Items 6 and 7)
- Initial and Continuing Calibrations (Items 9 and 10)
- ⊗ Laboratory Blanks (Items 11 and 12)
- ⊗ MS/MSD (Items 13 and 14)
- ✓ LCS/LCSD (Items 15 and 16)
- System Monitoring Compounds (i.e., Surrogates) (Item 17)
- ⊗ Equipment Blanks (Items 18 and 19)
- ⊗ Field Duplicates (Items 20 and 21)
- Laboratory Duplicates (Item 22)
- Data Relationships (Item 23)

Guidance References

Chemical data validation was conducted in accordance with the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines for the analyses listed below, or by the appropriate method if not covered in the National Functional Guidelines.

- Data for organic analyses were evaluated according to validation criteria set forth in the USEPA CLP National Functional Guidelines for Organic Superfund Methods Data Review, document number EPA-540-R-20-005, November 2020 with additional reference to the USEPA CLP National Functional Guidelines for Organic Data Review, document number EPA 540/R-99/008, October 1999.
- Data for inorganic analyses were evaluated according to validation criteria set forth in the USEPA CLP National Functional Guidelines for Inorganic Superfund Methods Data Review, document number EPA-540-R-20-006, November 2020 with additional reference to the USEPA CLP National Functional Guidelines for Inorganic Data Review, document number EPA 540-R-04-004, October 2004.
- Review of field duplicates was conducted according to the USEPA Region I - New England Environmental Data Review Supplement for Region 1 Data Review Elements and Superfund Specific Guidance/Procedures, EQADR-Supplement2, September 2020.
- Trihydro Data Validation Variance Documentation, February 2021.





Tier II Data Validation Report Summary

OVERALL DATA PACKAGE ASSESSMENT

Based on a data validation review, the data are acceptable as delivered. Data qualified by the laboratory are discussed in Item 2 of the Validation Criteria Checklist.

The purpose of validating data and assigning qualifiers is to assist in proper data interpretation. Data that are not qualified meet the site data quality objectives. If values are assigned qualifiers other than an R (rejected, data not usable), the data may be used for site evaluation; however, consideration should be given to the reasons for qualification when interpreting sample concentrations. Data points that are assigned an R qualifier should not be used for site evaluation purposes.

If applicable, text was identified in **bold font** in the Validation Criteria Checklist to indicate that further action and/or qualification of the data were required. Data may have been qualified with J data flags by the laboratory if the result was greater than or equal to the method detection limit (MDL) but less than the reporting limit (RL). These laboratory-applied J flags were preserved, if present, and included in the Data Qualification Summary table at the end of this report. If applicable, data validation qualifiers were added for the items noted with crossed circles in the Validation Criteria section above. Please see the Data Qualification Summary table at the end of this report for a complete list of samples and analytes qualified.

If data would be qualified with more than one flag, one qualifier was assigned based on the severity; however, all reasons for qualification were retained. Data that would be qualified with both J+ and J- flags were evaluated based on validation criteria and assigned the appropriate flag. The hierarchy of qualifiers from the most to least severe is as follows:

- R > JB/U > NJ > J+/J- > J/UJ

Data qualifiers used during this validation are included in the following table.

<u>Qualifier</u>	<u>Definition</u>
J	Estimated concentration
J-	The result is an estimated concentration, but may be biased low
UJ	Estimated reporting limit
U	Evaluated to be undetected at the reporting limit
JB	Estimated concentration due to blank contamination
R	Rejected, data not usable

Data Completeness

The analyses were performed as requested on the CoC records. The associated samples were received by the laboratory and analyzed properly unless otherwise noted in the Criteria Checklist below. The complete data package consisted of 900 data points. The data completeness calculation does not include any submitted blank sample results. One data point was rejected. The data completeness measure for this data package is calculated to be 99.89% and is acceptable.



VALIDATION CRITERIA CHECKLIST

1. Was the report free of non-conformances identified by the laboratory? No

Comments: The laboratory noted the following analytical non-conformances related to this data set.

Method 9056A: The MS/MSD recoveries for analytical batch 860-38740 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated LCS recovery was within acceptance limits.

Method 6020A: The method blank for preparation batch 860-38889 and analytical batch 860-39033 contained manganese and zinc above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

The method blank for preparation batch 860-39241 and analytical batch 860-40068 contained barium and zinc above the method detection limit. These target analyte concentrations were less than the RL; therefore, re-extraction and/or re-analysis of samples was not performed.

The method blank for preparation batch 860-39241 and analytical batch 860-40068 contained manganese above the RL. Associated samples were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 9012A: The hold time was missed on the sample as the analyst mixed up the hold time expiration date (02/02/22) and sample due date (02/3/22) BI-9 (0-1) (860-19628-19), BI-9 (5-6) (860-19628-20), BI-10 (0-1) (860-19628-21), BI-10 (5-6) (860-19628-22), BI-11 (0-1) (860-19628-23), and EB-1-19-22 (860-19628-26).

2. Were the data free of data qualification flags and/or notes used by the laboratory? No
If no, define.

Comments: The laboratory used the following data qualification flags with this data set.

B – Compound was found in the blank and sample.

F1 – MS and/or MSD recovery exceeds control limits.

H – Sample was prepped or analyzed beyond the specified holding time.

J – Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

4 – MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

3. Were sample CoC forms and custody procedures complete? Yes

Comments: The CoC records from field to laboratory were complete, and custody was maintained as evidenced by field and laboratory personnel signatures, dates, and times of receipt. The laboratory noted that the shipping containers were sealed, and custody seals were present and intact on the shipping containers.

4. Were detection limits in accordance with the quality assurance project plan (QAPP), permit, or method, or indicated as acceptable? Yes

Comments: The detection limits appeared to be acceptable. The following dilutions were applied.

Method	Sample(s)	Analyte(s)	Dilution Factor
6020A	Multiple Samples	Select Total Metals	10
6020A	Multiple Samples	Select Total Metals	100

5. Were the reported analytical methods and constituents in compliance with the QAPP, permit, or CoC? Yes

Comments: The reported analytical methods were in compliance with the CoC, and the laboratory reported the requested constituents in accordance with the CoC.



VALIDATION CRITERIA CHECKLIST

6. Were samples received in good condition within method-specified requirements?

No

Comments: Samples were received on ice, in good condition, and with the cooler temperatures both within and outside the recommended temperature range of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ between 0.3°C and 5.3°C as noted on the CoC and in the Case Narrative. The cooler temperature below 2.0°C was judged as acceptable since the laboratory did not report the sample containers as broken or frozen.

7. Were samples extracted/digested and analyzed within method-specified or technical holding times?

No

Comments: The samples were digested and analyzed within method-specific holding times, with the following exceptions.

Method 9012A: Samples BI-9 (0-1), BI-9 (5-6), BI-10 (0-1), BI-10 (5-6), BI-11 (0-1), and EB-1-19-22 were analyzed for total cyanide outside the defined holding time of 14 days by approximately 1 day. Detected total cyanide results for samples BI-9 (0-1), BI-10 (0-1), BI-10 (5-6), BI-11 (0-1), and EB-1-19-22 by Method 9012A were assigned J qualifiers based on the holding time exceedances. The sample BI-9 (5-6) non-detect total cyanide result was assigned an R qualifier based on the holding time exceedance.

8. Were reported units appropriate for the sample matrix/matrices and analytical method(s)? Specify if wet or dry units were used for soil.

Yes

Comments: The results were reported in concentration units of micrograms per liter ($\mu\text{g/L}$), milligrams per liter (mg/L), and milligrams per kilogram (mg/kg), which were acceptable for the sample matrices and the analyses requested. The analytical results for the soil samples were reported on a dry weight basis for this sample set.

9. Did the laboratory provide any specific initial and/or continuing calibration results?

No

Comments: Initial and continuing calibration data were not included as part of this data set.

10. If initial and/or continuing calibration results were provided, were the results within acceptable limits?

N/A

Comments: Initial and continuing calibration data were not included as part of this data set.

11. Was the total number of laboratory blank samples prepared equal to at least 5% of the total number of samples or analyzed as required by the method?

Yes

Comments: The total number of laboratory blank samples prepared was equal to at least 5% of the total number of samples.

12. Were target analytes reported as not detected in the laboratory blanks?

No

Comments: Target analytes were reported as not detected in the laboratory blanks, with the following exceptions.

Method	Analyte	Analysis Batch	Prep Batch	Concentration
6020A	Total Manganese	39033	38889	0.000200 mg/L
6020A	Total Zinc	39033	38889	0.001865 mg/L
6020A	Total Barium	40068	39241	0.04830 mg/kg
6020A	Total Manganese	40068	39241	0.4421 mg/kg
6020A	Total Zinc	40068	39241	0.2877 mg/kg

Detections of total zinc and total manganese in prep batch 38889 in the associated samples that were less than the applicable reporting limits were assigned U qualifiers. Detections of the identified analytes in the associated samples that were above the reporting limit and greater than ten times the blank concentration did not require qualification.



VALIDATION CRITERIA CHECKLIST

13. Was the total number of MS samples prepared equal to at least 5% of the total number of samples or analyzed as required by the method? Yes

Comments: The total number of matrix spike samples prepared was equal to at least 5% of the total number of samples, although MS samples were not prepared/reported for all analyses and/or batches. The matrix spike sample source for each analytical batch in this sample set has been indicated below.

<u>Method</u>	<u>Analytes</u>	<u>Analysis Batch</u>	<u>Prep Batch</u>	<u>MS Sample Source</u>
6020A	Total Metals	39033	38889	Not Prepared
6020A	Total Metals	39063	38954	Not Prepared
6020A	Total Metals	39252	39003	BI-5 (5-6)
6020A	Total Metals	40068	39241	BI-15 (5-6)
7470A	Total Mercury	39004	38899	EB-01-18-22
7471A	Total Mercury	38984	38820	Not Prepared
7471A	Total Mercury	38984	38821	BI-1 (5-6), BI-6 (5-6)
7471A	Total Mercury	38984	38869	BI-11 (5-6), BI-12 (0-1)
7471A	Total Mercury	39201	39060	BI-21 (0-1)
9012A	Total Cyanide	39874	39824	DUP-01-18-22, EB-01-18-22, BI-5 (0-1)
9012A	Total Cyanide	40056	40012	BI-7 (5-6), BI-15(0-1), BI-19 (0-1)
9012A	Total Cyanide	40208	40131	BI-7 (5-6)
9056A	Chloride, Fluoride	38740	-----	EB-01-18-22, EB-1-20-22
9056A	Chloride, Fluoride	38814	39027	BI-1 (5-6), BI-2 (0-1), BI-11 (0-1), BI-14 (0-1), BI-18 (5-6)

Not Prepared – Matrix spikes were not prepared/reported for this batch.



VALIDATION CRITERIA CHECKLIST

14. For MS/MSDs prepared from project samples, were percent recoveries and RPDs within data validation or laboratory quality control (QC) limits? No

Comments: The percent recoveries and RPDs for MS/MSDs prepared from project samples were within data validation and laboratory QC limits, or were not applicable because the unspiked amount was more than four times the spike added, with the following exceptions.

Method	Analyte	Batch	MS Recovery	MSD Recovery	MS/MSD QC Limits
9056A	Chloride	38740	77%	77%	80-120%
6020A	Chromium	39241	64%	Acceptable	75-125%
6020A	Nickel	39241	73%	Acceptable	75-125%
6020A	Vanadium	39241	48%	Acceptable	75-125%
9012A	Total Cyanide	39824	65%	64%	75-125%
9012A	Total Cyanide	39824	44%	45%	75-125%

Detections of the analytes with MS and MSD recoveries less than the lower QC limits were qualified as J- in the associated samples due to evidence of potential low bias. Non-detections of these analytes in the associated samples were qualified as UJ.

The MS and MSD recoveries for fluoride in Method 9056A prep batch 38740 were outside the laboratory QC limits of 90-110% at 87% and 87%, respectively. However, the recoveries were within data validation QC limits of 80-120%. Validation action was not required.

The MS and MSD recoveries for total cyanide in Method 9012A prep batch 39824 using sample BI-5 (0-1) as the MS sample source were outside the laboratory QC limits of 90-110% at 83% and 83%, respectively. However, the recoveries were within the data validation limits of 75-125%. Therefore, validation action for total cyanide in sample BI-5 (0-1) was not required.

15. Was the total number of LCSs analyzed equal to at least 5% of the total number of samples or analyzed as required by the method? Yes

Comments: The total number of LCS samples analyzed was equal to at least 5% of the total number of samples.

16. Were LCS/LCSD percent recoveries and LCS/LCSD RPDs within data validation or laboratory QC limits? Yes

Comments: The LCS and LCSD percent recoveries and LCS/LCSD RPDs were within data validation and laboratory QC limits.

17. Were surrogate recoveries within laboratory QC limits? N/A

Comments: Surrogates were not required for the analyses included in this data set.

18. Were the number of trip blank, field blank, and/or equipment blank samples collected equal to at least 10% of the total number of samples or as required by the project guidelines, QAPP, SAP, or permit? No

Comments: The number of trip, field, and equipment blanks collected was not equal to at least 10% of the number of samples. Three equipment blank samples, EB-01-18-22, EB-1-19-22, and EB-1-20-22, were collected as part of this sample set.



VALIDATION CRITERIA CHECKLIST

19. Were target analytes reported as not detected in the trip blank, field blank, and/or equipment blank samples? No

Comments: Target analytes were not detected in the equipment blank samples with the following exceptions.

Blank Sample ID	Method	Analyte	Concentration
EB-01-18-22	6020A	Total Lead	0.000189 mg/L
EB-01-18-22	6020A	Total Manganese	0.000540 mg/L
EB-1-19-22	6020A	Total Manganese	0.000315 mg/L
EB-1-20-22	6020A	Total Manganese	0.000437 mg/L
EB-01-18-22	6020A	Total Nickel	0.00086 mg/L
EB-1-19-22	6020A	Total Nickel	0.000945 mg/L
EB-1-20-22	6020A	Total Nickel	0.000942 mg/L
EB-01-18-22	6020A	Total Zinc	0.00256 mg/L
EB-1-19-22	6020A	Total Zinc	0.000826 mg/L
EB-1-20-22	6020A	Total Zinc	0.000824 mg/L
EB-1-19-22	9012A	Total Cyanide	3.09 µg/L
EB-01-18-22	9056A	Chloride	0.598 mg/L

Detections of chloride in the samples associated with EB-01-18-22 that were less than the soil equivalent blank result and/or less than the applicable reporting limit were assigned U qualifiers. Detections of chloride in the associated samples that were greater than the reporting limit but less than 10 times the soil equivalent blank result were assigned JB qualifiers. Detections of chloride in the associated samples that were above the reporting limit and greater than ten times the soil equivalent blank concentration did not require qualification.

Non-detections of the other identified analytes in the associated samples and detections that were above the reporting limit and greater than ten times the soil equivalent blank concentrations did not require qualification.

20. Was the number of field duplicates collected equal to at least 10% of the total number of samples or as required by the project guidelines, QAPP, SAP, or permit? No

Comments: The number of field duplicates collected was not equal to at least 10% of the number of samples.

- Sample DUP-01-18-22 was collected as a field duplicate of sample BI-3 (0-1).
- Sample DUP-1-19-22 was collected as a field duplicate of sample BI-6 (0-1).
- Sample DUP-1-20-22 was collected as a field duplicate of sample BI-21 (0-1).

21. Were field duplicate RPD values within data validation QC limits (soil 0-50%, water 0-30%, or air 0-25%)? No

Comments: As indicated in the Field Duplicate Summary Tables at the end of this report, field duplicate RPD values were within data validation QC limits of 0-50% for soil samples, with the following exception.

Duplicate pair BI-21 (0-1) / DUP-1-20-22: The RPD value for chloride exceeded the data validation limit of 50% at 191.4%, which was evidence of poor precision. The chloride results were qualified as J for samples BI-21 (0-1) and DUP-1-20-22.

The results for associated samples would typically be qualified based on RPD values greater than 100%, but since multiple field duplicates were collected and analyzed, determination of sample associations would be arbitrary. Therefore, the qualification of the chloride results was limited to the identified samples.

22. For laboratory duplicates prepared from project samples, were RPDs within laboratory QC limits? N/A

Comments: Laboratory duplicate samples were not prepared for this sample set.



VALIDATION CRITERIA CHECKLIST		
23. Were the following data relationships realistic and acceptable?		
Target analytes were reported by more than one method (e.g., 8260/8270, EPH/8270), and the results were in agreement?		N/A
Comments: Target analytes were not reported by more than one method in this data set.		
Both total and dissolved metals analyses were performed, and the total metals results were greater than or equal to the dissolved metals results?		N/A
Comments: Total and dissolved metals analyses were not performed for this data set.		

FIELD DUPLICATE SUMMARY

Client Sample ID: BI-3 (0-1) Field Duplicate Sample ID: DUP-01-18-22				
Analyte	Method	Laboratory Result	Duplicate Result	Relative Percent Difference (RPD)
Antimony, Total	6020A	0.174 mg/kg	0.214 mg/kg	20.6% +/-RL
Arsenic, Total	6020A	2.05 mg/kg	2.37 mg/kg	14.5% +/-RL
Barium, Total	6020A	655 mg/kg	739 mg/kg	12.1%
Beryllium, Total	6020A	0.898 mg/kg	1.08 mg/kg	18.4% +/-RL
Chromium, Total	6020A	16.9 mg/kg	19.9 mg/kg	16.3%
Cobalt, Total	6020A	6.03 mg/kg	6.27 mg/kg	3.9%
Iron, Total	6020A	16,400 mg/kg	18,500 mg/kg	12.0%
Lead, Total	6020A	9.4 mg/kg	10.4 mg/kg	10.1%
Manganese, Total	6020A	422 mg/kg	388 mg/kg	8.4%
Nickel, Total	6020A	10.5 mg/kg	12.0 mg/kg	13.3%
Uranium, Total	6020A	0.686 mg/kg	0.726 mg/kg	5.7% +/-RL
Vanadium, Total	6020A	30.8 mg/kg	36.2 mg/kg	16.1%
Zinc, Total	6020A	23.5 mg/kg	26.9 mg/kg	13.5%
Mercury, Total	7471A	0.00846 mg/kg	0.00861 mg/kg	1.8% +/-RL
Cyanide, Total	9012A	0.0904 mg/kg	0.143 mg/kg	45.1% +/-RL
Chloride	9056A_28D	21.9 mg/kg	28.6 mg/kg	26.5%
Fluoride, Total	9056A_28D	16.7 mg/kg	16.3 mg/kg	2.4%
Field duplicate RPD control limits are not to exceed 50% for soil as established by USEPA Region I - New England Environmental Data Review Supplement for Region 1 Data Review Elements and Superfund Specific Guidance/Procedures, EQADR-Supplement2, September 2020. +/-RL – Indicates that the detections in both of the samples were within two times the reporting limit. Qualification of data was not required.				



Client Sample ID: BI-6 (0-1) Field Duplicate Sample ID: DUP-1-19-22				
Analyte	Method	Laboratory Result	Duplicate Result	Relative Percent Difference (RPD)
Arsenic, Total	6020A	1.78 mg/kg	1.54 mg/kg	14.5% +/-RL
Barium, Total	6020A	210 mg/kg	167 mg/kg	22.8%
Beryllium, Total	6020A	0.742 mg/kg	0.571 mg/kg	26.0% +/-RL
Chromium, Total	6020A	11.7 mg/kg	11.6 mg/kg	0.9%
Cobalt, Total	6020A	4.39 mg/kg	4.03 mg/kg	8.6% +/-RL
Iron, Total	6020A	9,950 mg/kg	9,010 mg/kg	9.9%
Lead, Total	6020A	6.79 mg/kg	6.14 mg/kg	10.1%
Manganese, Total	6020A	889 mg/kg	624 mg/kg	35.0%
Nickel, Total	6020A	7.67 mg/kg	6.9 mg/kg	10.6%
Analyte	Method	Laboratory Result	Duplicate Result	Relative Percent Difference (RPD)
Uranium, Total	6020A	0.475 mg/kg	0.423 mg/kg	11.6% +/-RL
Vanadium, Total	6020A	19 mg/kg	16.8 mg/kg	12.3%
Zinc, Total	6020A	29.1 mg/kg	21.4 mg/kg	30.5%
Mercury, Total	SW 7471A	0.00874 mg/kg	0.023 mg/kg	89.9% +/-RL
Cyanide, Total	SW 9012A	0.101 mg/kg	0.113 mg/kg	11.2% +/-RL
Chloride	9056A_28D	44 mg/kg	42.5 mg/kg	3.5%
Fluoride, Total	9056A_28D	5.76 mg/kg	5.03 mg/kg	13.5% +/-RL
Field duplicate RPD control limits are not to exceed 50% for soil as established by USEPA Region I - New England Environmental Data Review Supplement for Region 1 Data Review Elements and Superfund Specific Guidance/Procedures, EQADR-Supplement2, September 2020.				
+/-RL – Indicates that the detections in both of the samples were within two times the reporting limit. Qualification of data was not required.				

Client Sample ID: BI-21 (0-1) Field Duplicate Sample ID: DUP-1-20-22				
Analyte	Method	Laboratory Result	Duplicate Result	Relative Percent Difference (RPD)
Antimony, Total	6020A	0.275 mg/kg	0.351 mg/kg	24.3% +/-RL
Arsenic, Total	6020A	2.34 mg/kg	2.16 mg/kg	8.0% +/-RL
Barium, Total	6020A	422 mg/kg	343 mg/kg	20.7%
Beryllium, Total	6020A	1.20 mg/kg	1.30 mg/kg	8.0% +/-RL
Cadmium, Total	6020A	0.167 mg/kg	0.162 mg/kg	3.0% +/-RL
Chromium, Total	6020A	18.4 mg/kg	20.7 mg/kg	11.8%
Cobalt, Total	6020A	6.17 mg/kg	7.46 mg/kg	18.9%
Iron, Total	6020A	17,900 mg/kg	20,200 mg/kg	12.1%
Lead, Total	6020A	13.2 mg/kg	15.5 mg/kg	16.0%
Manganese, Total	6020A	725 mg/kg	899 mg/kg	21.4%
Nickel, Total	6020A	12.8 mg/kg	14.3 mg/kg	11.1%
Selenium, Total	6020A	0.654 mg/kg	0.658 mg/kg	0.6% +/-RL
Uranium, Total	6020A	0.499 mg/kg	0.534 mg/kg	6.8% +/-RL
Vanadium, Total	6020A	25.1 mg/kg	27.3 mg/kg	8.4%
Zinc, Total	6020A	42.7 mg/kg	49.4 mg/kg	14.5%
Mercury, Total	SW 7471A	0.0145 mg/kg	0.0145 mg/kg	0.0% +/-RL
Cyanide, Total	9012A	0.202 mg/kg	0.179 mg/kg	12.1%
Chloride	9056A_28D	749 mg/kg	16.5 mg/kg	191.4%
Field duplicate RPD control limits are not to exceed 50% for soil as established by USEPA Region I - New England Environmental Data Review Supplement for Region 1 Data Review Elements and Superfund Specific Guidance/Procedures, EQADR-Supplement2, September 2020. +/-RL – Indicates that the detections in both of the samples were within two times the reporting limit. Qualification of data was not required. The RPD value for chloride exceeded the data validation limit of 50% at 191.4%, which was evidence of poor precision. The chloride results were qualified as J for samples BI-21 (0-1) and DUP-1-20-22. The results for associated samples would typically be qualified based on RPD values greater than 100%, but since multiple field duplicates were collected and analyzed, determination of sample associations would be arbitrary. Therefore, the qualification of the chloride results was limited to the identified samples.				



DATA QUALIFICATION SUMMARY

Abbreviation	Reason
ERPD-FD	High field duplicate RPD.
HT-AN	Sample was analyzed outside of the method holding time.
LR-MS	The MS and/or MSD percent recovery was less than the lower acceptable limit indicating possible matrix interference.
EBD	Equipment blank detection
MBD	Method blank detection
MDLRL	Flagged by the laboratory: The result was greater than the MDL but less than the RL.

Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Antimony, Total	6020A	DUP-01-18-22	860-19628-1	0.214	2.28	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-5 (0-1)	860-19628-11	0.188	2.12	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-5 (5-6)	860-19628-12	0.301	2.08	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-11 (5-6)	860-19628-24	0.135	2.07	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-1 (0-1)	860-19628-3	0.164	2.27	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-13 (0-1)	860-19628-34	0.357	2.42	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-13 (5-6)	860-19628-35	0.293	2.23	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-12 (0-1)	860-19628-36	0.268	2.53	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-12 (5-6)	860-19628-37	0.242	2.22	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-17 (0-1)	860-19628-38	0.300	2.34	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-17 (5-6)	860-19628-39	0.156	2.21	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-1 (5-6)	860-19628-4	0.122	2.05	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-18 (0-1)	860-19628-40	0.330	2.77	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-18 (5-6)	860-19628-41	0.215	2.29	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-19 (0-1)	860-19628-42	0.214	2.27	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-19 (5-6)	860-19628-43	0.225	2.19	mg/kg	J	MDLRL



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Antimony, Total	6020A	BI-20 (0-1)	860-19628-44	0.204	2.18	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-21 (0-1)	860-19628-46	0.275	2.45	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-21 (5-6)	860-19628-47	0.153	2.49	mg/kg	J	MDLRL
Antimony, Total	6020A	DUP-1-20-22	860-19628-48	0.351	2.36	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-2 (0-1)	860-19628-5	0.175	2.02	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-3 (0-1)	860-19628-7	0.174	2.41	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-3 (5-6)	860-19628-8	0.151	2.09	mg/kg	J	MDLRL
Antimony, Total	6020A	BI-4 (0-1)	860-19628-9	0.155	2.15	mg/kg	J	MDLRL
Arsenic, Total	6020A	DUP-01-18-22	860-19628-1	2.37	4.57	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-4 (5-6)	860-19628-10	1.27	4.19	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-5 (0-1)	860-19628-11	2.12	4.24	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-5 (5-6)	860-19628-12	1.86	4.15	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-6 (0-1)	860-19628-13	1.78	4.68	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-6 (5-6)	860-19628-14	0.980	3.81	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-7 (0-1)	860-19628-15	1.36	4.55	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-7 (5-6)	860-19628-16	0.736	4.06	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-8 (5-6)	860-19628-18	1.40	4.43	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-9 (0-1)	860-19628-19	2.46	4.43	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-9 (5-6)	860-19628-20	1.18	4.07	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-10 (0-1)	860-19628-21	1.81	4.16	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-10 (5-6)	860-19628-22	3.45	4.04	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-11 (0-1)	860-19628-23	1.35	4.64	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-11 (5-6)	860-19628-24	1.86	4.14	mg/kg	J	MDLRL
Arsenic, Total	6020A	DUP-1-19-22	860-19628-25	1.54	4.17	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-14 (0-1)	860-19628-28	1.24	4.93	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-14 (5-6)	860-19628-29	0.853	4.12	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-1 (0-1)	860-19628-3	2.72	4.54	mg/kg	J	MDLRL



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Arsenic, Total	6020A	BI-16 (0-1)	860-19628-30	1.48	4.94	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-16 (5-6)	860-19628-31	1.26	3.91	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-15 (0-1)	860-19628-32	1.41	4.84	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-15 (5-6)	860-19628-33	2.06	4.14	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-13 (0-1)	860-19628-34	1.54	4.84	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-13 (5-6)	860-19628-35	1.55	4.46	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-12 (0-1)	860-19628-36	1.45	5.07	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-12 (5-6)	860-19628-37	1.66	4.44	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-17 (0-1)	860-19628-38	1.75	4.68	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-17 (5-6)	860-19628-39	1.31	4.41	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-1 (5-6)	860-19628-4	2.36	4.11	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-18 (0-1)	860-19628-40	2.12	5.53	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-18 (5-6)	860-19628-41	1.54	4.57	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-19 (0-1)	860-19628-42	1.85	4.53	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-19 (5-6)	860-19628-43	1.68	4.38	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-20 (0-1)	860-19628-44	1.96	4.35	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-20 (5-6)	860-19628-45	2.31	4.24	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-21 (0-1)	860-19628-46	2.34	4.91	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-21 (5-6)	860-19628-47	1.33	4.97	mg/kg	J	MDLRL
Arsenic, Total	6020A	DUP-1-20-22	860-19628-48	2.16	4.72	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-2 (0-1)	860-19628-5	3.12	4.03	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-2 (5-6)	860-19628-6	1.29	4.58	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-3 (0-1)	860-19628-7	2.05	4.82	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-3 (5-6)	860-19628-8	1.41	4.18	mg/kg	J	MDLRL
Arsenic, Total	6020A	BI-4 (0-1)	860-19628-9	1.53	4.3	mg/kg	J	MDLRL
Beryllium, Total	6020A	DUP-01-18-22	860-19628-1	1.08	2.28	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-4 (5-6)	860-19628-10	0.757	2.09	mg/kg	J	MDLRL



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Beryllium, Total	6020A	BI-5 (0-1)	860-19628-11	0.728	2.12	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-5 (5-6)	860-19628-12	2.06	2.08	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-6 (0-1)	860-19628-13	0.742	2.34	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-6 (5-6)	860-19628-14	0.499	1.90	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-7 (0-1)	860-19628-15	0.559	2.28	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-7 (5-6)	860-19628-16	0.557	2.03	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-8 (0-1)	860-19628-17	0.555	1.95	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-8 (5-6)	860-19628-18	1.07	2.21	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-9 (0-1)	860-19628-19	0.876	2.22	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-9 (5-6)	860-19628-20	1.12	2.03	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-10 (0-1)	860-19628-21	0.582	2.08	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-10 (5-6)	860-19628-22	0.823	2.02	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-11 (0-1)	860-19628-23	1.24	2.32	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-11 (5-6)	860-19628-24	1.28	2.07	mg/kg	J	MDLRL
Beryllium, Total	6020A	DUP-1-19-22	860-19628-25	0.571	2.09	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-14 (0-1)	860-19628-28	1.01	2.47	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-14 (5-6)	860-19628-29	0.771	2.06	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-1 (0-1)	860-19628-3	0.632	2.27	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-16 (0-1)	860-19628-30	1.33	2.47	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-16 (5-6)	860-19628-31	0.773	1.96	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-15 (0-1)	860-19628-32	1.06	2.42	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-15 (5-6)	860-19628-33	1.43	2.07	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-13 (0-1)	860-19628-34	1.32	2.42	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-13 (5-6)	860-19628-35	1.3	2.23	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-12 (0-1)	860-19628-36	1.13	2.53	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-12 (5-6)	860-19628-37	1.04	2.22	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-17 (0-1)	860-19628-38	0.981	2.34	mg/kg	J	MDLRL



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Beryllium, Total	6020A	BI-17 (5-6)	860-19628-39	0.709	2.21	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-1 (5-6)	860-19628-4	0.683	2.05	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-18 (0-1)	860-19628-40	1.05	2.77	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-18 (5-6)	860-19628-41	0.93	2.29	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-19 (0-1)	860-19628-42	0.995	2.27	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-19 (5-6)	860-19628-43	0.979	2.19	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-20 (0-1)	860-19628-44	1.04	2.18	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-20 (5-6)	860-19628-45	1.06	2.12	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-21 (0-1)	860-19628-46	1.20	2.45	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-21 (5-6)	860-19628-47	0.882	2.49	mg/kg	J	MDLRL
Beryllium, Total	6020A	DUP-1-20-22	860-19628-48	1.30	2.36	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-2 (0-1)	860-19628-5	0.704	2.02	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-2 (5-6)	860-19628-6	0.772	2.29	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-3 (0-1)	860-19628-7	0.898	2.41	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-3 (5-6)	860-19628-8	1.14	2.09	mg/kg	J	MDLRL
Beryllium, Total	6020A	BI-4 (0-1)	860-19628-9	0.696	2.15	mg/kg	J	MDLRL
Cadmium, Total	6020A	BI-10 (0-1)	860-19628-21	0.190	2.08	mg/kg	J	MDLRL
Cadmium, Total	6020A	BI-10 (5-6)	860-19628-22	0.187	2.02	mg/kg	J	MDLRL
Cadmium, Total	6020A	BI-17 (0-1)	860-19628-38	0.142	2.34	mg/kg	J	MDLRL
Cadmium, Total	6020A	BI-19 (5-6)	860-19628-43	0.137	2.19	mg/kg	J	MDLRL
Cadmium, Total	6020A	BI-21 (0-1)	860-19628-46	0.167	2.45	mg/kg	J	MDLRL
Cadmium, Total	6020A	DUP-1-20-22	860-19628-48	0.162	2.36	mg/kg	J	MDLRL
Cadmium, Total	6020A	BI-2 (0-1)	860-19628-5	0.150	2.02	mg/kg	J	MDLRL
Chloride	SW 9056A_28D	EB-01-18-22	860-19628-2	0.598	0.500	mg/L	J-	LR-MS
Chloride	SW 9056A_28D	EB-1-19-22	860-19628-26	ND	0.500	mg/L	UJ	LR-MS
Chloride	SW 9056A_28D	EB-1-20-22	860-19628-27	ND	0.500	mg/L	UJ	LR-MS
Chloride	SW 9056A_28D	BI-21 (0-1)	860-19628-46	749	13.2	mg/kg	J	ERPD-FD



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Chloride	SW 9056A_28D	DUP-1-20-22	860-19628-48	16.5	13.4	mg/kg	J	ERPD-FD
Chloride	SW 9056A_28D	BI-5 (0-1)	860-19628-11	5.30	11.7	mg/kg	J	EBD, MDLRL
Chloride	SW 9056A_28D	BI-7 (0-1)	860-19628-15	9.38	11.9	mg/kg	J	MDLRL
Chloride	SW 9056A_28D	BI-9 (0-1)	860-19628-19	11.4	11.9	mg/kg	J	MDLRL
Chloride	SW 9056A_28D	BI-14 (0-1)	860-19628-28	10.2	12.7	mg/kg	J	MDLRL
Chloride	SW 9056A_28D	BI-1 (0-1)	860-19628-3	8.35	12.3	mg/kg	J	EBD, MDLRL
Chloride	SW 9056A_28D	BI-12 (0-1)	860-19628-36	10.2	13.2	mg/kg	J	MDLRL
Chloride	SW 9056A_28D	BI-18 (0-1)	860-19628-40	13.8	14.2	mg/kg	J	MDLRL
Chloride	SW 9056A_28D	BI-19 (0-1)	860-19628-42	10.1	12.5	mg/kg	J	MDLRL
Chloride	SW 9056A_28D	BI-2 (0-1)	860-19628-5	6.39	11.4	mg/kg	U	EBD, MDLRL
Chloride	SW 9056A_28D	BI-4 (0-1)	860-19628-9	7.67	12.3	mg/kg	J	EBD, MDLRL
Chloride	SW 9056A_28D	DUP-1-18-22	860-19628-1	28.6	12.9	mg/kg	JB	EBD
Chloride	SW 9056A_28D	BI-3 (0-1)	860-19628-7	21.9	12.8	mg/kg	JB	EBD
Chromium, Total	6020A	BI-15 (5-6)	860-19628-33	25.3	4.14	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-13 (0-1)	860-19628-34	16.9	4.84	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-13 (5-6)	860-19628-35	13.8	4.46	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-12 (0-1)	860-19628-36	15.0	5.07	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-12 (5-6)	860-19628-37	17.9	4.44	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-17 (0-1)	860-19628-38	13.5	4.68	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-17 (5-6)	860-19628-39	8.56	4.41	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-18 (0-1)	860-19628-40	15.0	5.53	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-18 (5-6)	860-19628-41	7.63	4.57	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-19 (0-1)	860-19628-42	13.9	4.53	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-19 (5-6)	860-19628-43	12.7	4.38	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-20 (0-1)	860-19628-44	14.2	4.35	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-20 (5-6)	860-19628-45	12.2	4.24	mg/kg	J-	LR-MS
Chromium, Total	6020A	BI-21 (0-1)	860-19628-46	18.4	4.91	mg/kg	J-	LR-MS



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Chromium, Total	6020A	BI-21 (5-6)	860-19628-47	10.2	4.97	mg/kg	J-	LR-MS
Chromium, Total	6020A	DUP-1-20-22	860-19628-48	20.7	4.72	mg/kg	J-	LR-MS
Cyanide, Total	SW 9012A	BI-9 (0-1)	860-19628-19	0.0878	0.0718	mg/kg	J	HT-AN
Cyanide, Total	SW 9012A	BI-11 (0-1)	860-19628-23	0.119	0.0766	mg/kg	J	HT-AN
Cyanide, Total	SW 9012A	BI-9 (5-6)	860-19628-20	ND	0.0695	mg/kg	R	HT-AN
Cyanide, Total	SW 9012A	BI-10 (0-1)	860-19628-21	0.0458	0.0662	mg/kg	J	HT-AN, MDLRL
Cyanide, Total	SW 9012A	BI-10 (5-6)	860-19628-22	0.0362	0.0654	mg/kg	J	HT-AN, MDLRL
Cyanide, Total	SW 9012A	EB-1-19-22	860-19628-26	3.09	5.00	ug/L	J	HT-AN, MDLRL
Cyanide, Total	SW 9012A	DUP-01-18-22	860-19628-1	0.143	0.0753	mg/kg	J-	LR-MS
Cyanide, Total	SW 9012A	BI-1 (0-1)	860-19628-3	0.103	0.0713	mg/kg	J-	LR-MS
Cyanide, Total	SW 9012A	BI-2 (0-1)	860-19628-5	0.12	0.0696	mg/kg	J-	LR-MS
Cyanide, Total	SW 9012A	BI-3 (0-1)	860-19628-7	0.0904	0.0755	mg/kg	J-	LR-MS
Cyanide, Total	SW 9012A	BI-4 (0-1)	860-19628-9	0.101	0.0743	mg/kg	J-	LR-MS
Cyanide, Total	SW 9012A	EB-01-18-22	860-19628-2	ND	5.00	µg/L	UJ	LR-MS
Cyanide, Total	SW 9012A	BI-4 (5-6)	860-19628-10	0.054	0.0716	mg/kg	J-	LR-MS, MDLRL
Cyanide, Total	SW 9012A	BI-5 (5-6)	860-19628-12	0.0527	0.0703	mg/kg	J-	LR-MS, MDLRL
Cyanide, Total	SW 9012A	BI-1 (5-6)	860-19628-4	0.055	0.0657	mg/kg	J-	LR-MS, MDLRL
Cyanide, Total	SW 9012A	BI-2 (5-6)	860-19628-6	0.0509	0.0670	mg/kg	J-	LR-MS, MDLRL
Cyanide, Total	SW 9012A	BI-3 (5-6)	860-19628-8	0.0566	0.0703	mg/kg	J-	LR-MS, MDLRL
Cyanide, Total	SW 9012A	BI-7 (5-6)	860-19628-16	0.0325	0.0645	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-8 (5-6)	860-19628-18	0.0701	0.0731	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-11 (5-6)	860-19628-24	0.0549	0.0696	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-14 (5-6)	860-19628-29	0.0540	0.0693	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-16 (0-1)	860-19628-30	0.0700	0.0771	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-16 (5-6)	860-19628-31	0.0655	0.0669	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-15 (0-1)	860-19628-32	0.0736	0.0783	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-15 (5-6)	860-19628-33	0.0541	0.0683	mg/kg	J	MDLRL



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Cyanide, Total	SW 9012A	BI-13 (0-1)	860-19628-34	0.0748	0.0770	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-13 (5-6)	860-19628-35	0.0599	0.0695	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-12 (5-6)	860-19628-37	0.0472	0.0679	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-17 (5-6)	860-19628-39	0.065	0.0662	mg/kg	J	MDLRL
Cyanide, Total	SW 9012A	BI-20 (5-6)	860-19628-45	0.038	0.0686	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-5 (0-1)	860-19628-11	5.31	5.87	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-6 (0-1)	860-19628-13	5.76	6.42	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-6 (5-6)	860-19628-14	3.81	5.39	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-7 (0-1)	860-19628-15	1.77	5.96	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-8 (0-1)	860-19628-17	3.42	5.37	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-9 (0-1)	860-19628-19	1.72	5.96	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-11 (0-1)	860-19628-23	5.03	6.36	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	DUP-1-19-22	860-19628-25	5.03	6.08	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-14 (0-1)	860-19628-28	3.40	6.33	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-1 (0-1)	860-19628-3	3.38	6.17	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-16 (5-6)	860-19628-31	4.61	5.61	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-15 (5-6)	860-19628-33	4.80	5.61	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-12 (0-1)	860-19628-36	6.09	6.62	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-12 (5-6)	860-19628-37	1.39	5.56	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-17 (0-1)	860-19628-38	1.65	6.67	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-17 (5-6)	860-19628-39	2.50	5.49	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-18 (0-1)	860-19628-40	2.18	7.09	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-18 (5-6)	860-19628-41	1.60	5.76	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-19 (0-1)	860-19628-42	1.77	6.26	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-19 (5-6)	860-19628-43	1.17	5.78	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-20 (0-1)	860-19628-44	4.38	6.28	mg/kg	J	MDLRL
Fluoride, Total	SW 9056A_28D	BI-2 (0-1)	860-19628-5	1.99	5.72	mg/kg	J	MDLRL



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Fluoride, Total	SW 9056A_28D	BI-4 (0-1)	860-19628-9	3.45	6.13	mg/kg	J	MDLRL
Lead, Total	6020A	EB-01-18-22	860-19628-2	0.000189	0.00200	mg/L	J	MDLRL
Manganese, Total	6020A	EB-01-18-22	860-19628-2	0.000540	0.00200	mg/L	U	MBD, MDLRL
Manganese, Total	6020A	EB-1-19-22	860-19628-26	0.000315	0.00200	mg/L	U	MBD, MDLRL
Manganese, Total	6020A	EB-1-20-22	860-19628-27	0.000437	0.00200	mg/L	U	MBD, MDLRL
Mercury, Total	SW 7471A	DUP-01-18-22	860-19628-1	0.00861	0.0246	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-4 (5-6)	860-19628-10	0.00701	0.0209	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-5 (0-1)	860-19628-11	0.0150	0.0233	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-6 (0-1)	860-19628-13	0.00874	0.0243	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-6 (5-6)	860-19628-14	0.00698	0.0194	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-7 (5-6)	860-19628-16	0.00591	0.0211	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-8 (5-6)	860-19628-18	0.00872	0.0239	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-9 (0-1)	860-19628-19	0.0181	0.0222	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-10 (0-1)	860-19628-21	0.0161	0.0208	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-10 (5-6)	860-19628-22	0.0150	0.0188	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-11 (0-1)	860-19628-23	0.00795	0.0224	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-11 (5-6)	860-19628-24	0.00602	0.0219	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-14 (0-1)	860-19628-28	0.0169	0.0247	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-14 (5-6)	860-19628-29	0.00708	0.0218	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-1 (0-1)	860-19628-3	0.0208	0.0232	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-16 (0-1)	860-19628-30	0.00913	0.0225	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-16 (5-6)	860-19628-31	0.00825	0.0223	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-15 (0-1)	860-19628-32	0.0127	0.0251	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-15 (5-6)	860-19628-33	0.00634	0.0215	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-13 (0-1)	860-19628-34	0.0103	0.0238	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-13 (5-6)	860-19628-35	0.00602	0.0223	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-12 (0-1)	860-19628-36	0.00947	0.0263	mg/kg	J	MDLRL



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Mercury, Total	SW 7471A	BI-12 (5-6)	860-19628-37	0.00679	0.0226	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-17 (0-1)	860-19628-38	0.0201	0.0230	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-17 (5-6)	860-19628-39	0.00753	0.0212	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-18 (0-1)	860-19628-40	0.0168	0.0282	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-18 (5-6)	860-19628-41	0.00885	0.0216	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-19 (0-1)	860-19628-42	0.0127	0.0231	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-19 (5-6)	860-19628-43	0.0101	0.0203	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-20 (0-1)	860-19628-44	0.0144	0.0234	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-20 (5-6)	860-19628-45	0.00682	0.0220	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-21 (0-1)	860-19628-46	0.0145	0.0245	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-21 (5-6)	860-19628-47	0.00634	0.0235	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	DUP-1-20-22	860-19628-48	0.0145	0.0254	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-2 (0-1)	860-19628-5	0.0134	0.0205	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-2 (5-6)	860-19628-6	0.0154	0.0212	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-3 (0-1)	860-19628-7	0.00846	0.026	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-3 (5-6)	860-19628-8	0.00818	0.0202	mg/kg	J	MDLRL
Mercury, Total	SW 7471A	BI-4 (0-1)	860-19628-9	0.0112	0.0236	mg/kg	J	MDLRL
Nickel, Total	6020A	BI-15 (5-6)	860-19628-33	18.7	2.07	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-13 (0-1)	860-19628-34	13.8	2.42	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-13 (5-6)	860-19628-35	12.9	2.23	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-12 (0-1)	860-19628-36	13.1	2.53	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-12 (5-6)	860-19628-37	14.5	2.22	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-17 (0-1)	860-19628-38	10.5	2.34	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-17 (5-6)	860-19628-39	7.01	2.21	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-18 (0-1)	860-19628-40	10.9	2.77	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-18 (5-6)	860-19628-41	7.48	2.29	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-19 (0-1)	860-19628-42	10.4	2.27	mg/kg	J-	LR-MS



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Nickel, Total	6020A	BI-19 (5-6)	860-19628-43	10.3	2.19	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-20 (0-1)	860-19628-44	10.8	2.18	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-20 (5-6)	860-19628-45	11.8	2.12	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-21 (0-1)	860-19628-46	12.8	2.45	mg/kg	J-	LR-MS
Nickel, Total	6020A	BI-21 (5-6)	860-19628-47	8.92	2.49	mg/kg	J-	LR-MS
Nickel, Total	6020A	DUP-1-20-22	860-19628-48	14.3	2.36	mg/kg	J-	LR-MS
Nickel, Total	6020A	EB-01-18-22	860-19628-2	0.000860	0.00200	mg/L	J	MDLRL
Nickel, Total	6020A	EB-1-19-22	860-19628-26	0.000945	0.00200	mg/L	J	MDLRL
Nickel, Total	6020A	EB-1-20-22	860-19628-27	0.000942	0.00200	mg/L	J	MDLRL
Selenium, Total	6020A	BI-5 (5-6)	860-19628-12	0.606	2.08	mg/kg	J	MDLRL
Selenium, Total	6020A	BI-1 (0-1)	860-19628-3	0.662	2.27	mg/kg	J	MDLRL
Selenium, Total	6020A	BI-15 (5-6)	860-19628-33	0.605	2.07	mg/kg	J	MDLRL
Selenium, Total	6020A	BI-13 (5-6)	860-19628-35	0.671	2.23	mg/kg	J	MDLRL
Selenium, Total	6020A	BI-1 (5-6)	860-19628-4	0.543	2.05	mg/kg	J	MDLRL
Selenium, Total	6020A	BI-20 (0-1)	860-19628-44	0.544	2.18	mg/kg	J	MDLRL
Selenium, Total	6020A	BI-21 (0-1)	860-19628-46	0.654	2.45	mg/kg	J	MDLRL
Selenium, Total	6020A	DUP-1-20-22	860-19628-48	0.658	2.36	mg/kg	J	MDLRL
Selenium, Total	6020A	BI-2 (0-1)	860-19628-5	0.763	2.02	mg/kg	J	MDLRL
Uranium, Total	6020A	DUP-01-18-22	860-19628-1	0.726	1.14	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-4 (5-6)	860-19628-10	0.723	1.05	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-5 (0-1)	860-19628-11	0.716	1.06	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-6 (0-1)	860-19628-13	0.475	1.17	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-6 (5-6)	860-19628-14	0.526	0.952	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-7 (0-1)	860-19628-15	0.498	1.14	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-7 (5-6)	860-19628-16	0.354	1.01	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-8 (0-1)	860-19628-17	0.531	0.975	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-8 (5-6)	860-19628-18	0.476	1.11	mg/kg	J	MDLRL



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Uranium, Total	6020A	BI-9 (0-1)	860-19628-19	0.546	1.11	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-9 (5-6)	860-19628-20	0.655	1.02	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-11 (0-1)	860-19628-23	0.766	1.16	mg/kg	J	MDLRL
Uranium, Total	6020A	DUP-1-19-22	860-19628-25	0.423	1.04	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-14 (0-1)	860-19628-28	0.561	1.23	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-14 (5-6)	860-19628-29	0.639	1.03	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-16 (0-1)	860-19628-30	0.790	1.24	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-16 (5-6)	860-19628-31	0.762	0.978	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-15 (0-1)	860-19628-32	0.626	1.21	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-13 (0-1)	860-19628-34	0.903	1.21	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-13 (5-6)	860-19628-35	0.965	1.11	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-12 (0-1)	860-19628-36	0.778	1.27	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-12 (5-6)	860-19628-37	0.733	1.11	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-17 (0-1)	860-19628-38	0.435	1.17	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-17 (5-6)	860-19628-39	0.370	1.10	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-18 (0-1)	860-19628-40	0.419	1.38	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-18 (5-6)	860-19628-41	0.373	1.14	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-19 (0-1)	860-19628-42	0.441	1.13	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-19 (5-6)	860-19628-43	0.421	1.10	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-20 (0-1)	860-19628-44	0.435	1.09	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-21 (0-1)	860-19628-46	0.499	1.23	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-21 (5-6)	860-19628-47	0.446	1.24	mg/kg	J	MDLRL
Uranium, Total	6020A	DUP-1-20-22	860-19628-48	0.534	1.18	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-2 (5-6)	860-19628-6	0.866	1.15	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-3 (0-1)	860-19628-7	0.686	1.21	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-3 (5-6)	860-19628-8	0.858	1.05	mg/kg	J	MDLRL
Uranium, Total	6020A	BI-4 (0-1)	860-19628-9	0.521	1.08	mg/kg	J	MDLRL



Analyte	Method	Field Sample ID	Lab Sample ID	Result	Limit	Units	Reviewer Qualifier	DV Flag Reasons
Vanadium, Total	6020A	BI-15 (5-6)	860-19628-33	34.9	2.07	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-13 (0-1)	860-19628-34	20.3	2.42	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-13 (5-6)	860-19628-35	17.9	2.23	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-12 (0-1)	860-19628-36	19.5	2.53	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-12 (5-6)	860-19628-37	23.7	2.22	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-17 (0-1)	860-19628-38	17.1	2.34	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-17 (5-6)	860-19628-39	16.2	2.21	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-18 (0-1)	860-19628-40	21.2	2.77	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-18 (5-6)	860-19628-41	12.7	2.29	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-19 (0-1)	860-19628-42	19.0	2.27	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-19 (5-6)	860-19628-43	16.3	2.19	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-20 (0-1)	860-19628-44	19.5	2.18	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-20 (5-6)	860-19628-45	2,840	21.2	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-21 (0-1)	860-19628-46	25.1	2.45	mg/kg	J-	LR-MS
Vanadium, Total	6020A	BI-21 (5-6)	860-19628-47	13.7	2.49	mg/kg	J-	LR-MS
Vanadium, Total	6020A	DUP-1-20-22	860-19628-48	27.3	2.36	mg/kg	J-	LR-MS
Zinc, Total	6020A	EB-01-18-22	860-19628-2	0.00256	0.00400	mg/L	U	MBD, MDLRL
Zinc, Total	6020A	EB-1-19-22	860-19628-26	0.000826	0.00400	mg/L	U	MBD, MDLRL
Zinc, Total	6020A	EB-1-20-22	860-19628-27	0.000824	0.00400	mg/L	U	MBD, MDLRL





Western Refining Southwest LLC
D/B/A Marathon Gallup Refinery
Background Soil Investigation Report

Appendix D – Statistical Analysis



memorandum

To: Ms. Lesli Alexander
From: Ms. Marie-Agnès Tellier, Ph.D.
cc: Ms. Mackensie Swift
Date: December 14, 2022
Re: Summary of Statistical Methods and Results for the
2022 Background Evaluation of Western Refining
Southwest LLC, Marathon Gallup Refinery, Gallup,
New Mexico

The following memo details the methods used and results obtained during the statistical evaluation of soil data obtained between January 18, 2022 and January 20, 2022 from background locations in the Rehobeth and the Simitarq-Celavar Zones from surface (0 to 1 ft) and subsurface (5 to 6 ft) layers. The analysis was conducted to establish site-specific soil background threshold values (BTVs) with which to evaluate down-gradient refinery impacts to soil for naturally occurring constituents. These background data will be used in the evaluation of Solid Waste Management Units and Areas of Concern as described in Part IV.J.6 of the Resource and Recovery Act Modified Post-Closure Permit (NMED 2017).

Statistical analysis was done in accordance with the best practices identified in the Environmental Protection Agency (EPA) Guidance for Comparing Background and Chemical concentrations in Soil for CERCLA Sites (EPA 2002), the EPA Unified Guidance (EPA 2009), and the EPA 2015 ProUCL Technical Guide (EPA 2015a). Evaluated analytes are listed in Attachment A. A brief description of tasks and supporting documents follows:

- Data were reviewed and determinations were made regarding use of R- and U-flagged results, and trace data (Section 1.1).
- Summary statistics were calculated to characterize the useability of data in BTV estimation (Section 1.2; Attachment A).
- Outlier analysis was conducted and comparative boxplots of analyte concentrations at each zone-depth combination were constructed to identify low-probability, misrepresentative samples of the background population (Section 1.3, Attachment B).
- Methods used to calculate zone-depth specific BTVs are presented in Section 2 and BTV estimates are reported in Attachment A.

R[®] (R Core Team, 2020), a programming language and software environment for statistical analysis, and ProUCL v. 5.1 (EPA 2015b) were used for all statistical analysis.



Summary of Statistical Methods and Results for the 2022 Background Evaluation
Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
December 14, 2022
Page 2

1.0 Methods

1.1 Quality Assurance/Quality Control (QAQC) and Data Handling

The data evaluation was limited to the 20 general and metal analytes listed in Attachment A. All analytes were reported in milligrams per kilograms (mg/kg). Parent samples were used for statistical analysis; duplicate samples (if applicable) were used during data validation to assess the analytical results reported by the laboratory. One rejected (i.e., R-flagged) result from the data validation process for total cyanide at location BI-9 (5 to 6 ft) collected on January 19, 2022 in the Rehobeth zone, was not included in the statistical evaluation. Trace concentrations (i.e., estimated results between the practical quantitation limit [PQL] and the method detection limit [MDL]) were treated as detected values. All U-flagged values were used as is, i.e., as detected results if detected above their MDL. The MDLs were used as substitute values for all non-detect (ND) values in all statistical analyses unless otherwise specified.

1.2 Exploratory Data Analysis and General Descriptive Statistics

Exploratory Data Analysis (EDA) was performed on all analyte-zone-depth combinations and presented in Attachment A. For each analyte-zone-depth combination, these statistics include the number of samples collected during the January 2022 sampling event, the overall detection rate, the minimum and maximum detected concentrations, the minimum and maximum MDL, and the overall sample mean, median, and sample standard deviation.

1.3 Comparative Boxplots and Outlier Analysis

For each analyte, comparative boxplots were constructed to show the distribution of the analyte concentration at each zone-depth (Attachment B). The lower and upper hinges correspond to the first and third quartiles (the 25th and 75th percentiles). The upper and lower whiskers extend from the hinges (i.e. the top and bottom line of the box on the boxplot) to the largest and smallest values, respectively, no further than $1.5 * IQR$ from the hinge (where IQR is the inter-quartile range, or distance between the first and third quartiles). Data beyond the end of the whiskers may be considered as outlying points and were plotted individually for review.

Outlier analyses were performed using the Dixon's and Grubbs' tests when the sample size for each analyte-zone-depth combination, n , was more than 4, but less than 30, with at least one detected result above the MDL. Any extreme and unusual values flagged as outliers by any of the outlier tests were graphically confirmed using scatterplots and comparative boxplots. Generally, the one-third- or three-times the overall constituent concentration was used as the final determination for outlier identification and listed in Attachment A.

1.4 Zone-Wide Depth-Specific Upper Tolerance Limits

A tolerance interval is a concentration range designed to contain a pre-specified proportion (e.g., 95%) of the underlying population from which the statistical samples are drawn with a certain level of statistical



Summary of Statistical Methods and Results for the 2022 Background Evaluation
Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
December 14, 2022
Page 3

confidence (e.g., 95%). Inter-location tolerance limit comparisons, where concentration levels from down-gradient, compliance, or monitoring locations are compared to statistical tolerance limits constructed from data from background locations, can be used to evaluate the inorganic data from soil samples collected from different locations across the site.

A zone-wide, depth-specific, one-sided upper tolerance limit (UTL), a type of BTV, uses background data to calculate a value (i.e., UTL) with a predetermined proportion and confidence level, in this case both 95% (i.e., UTL95-95). To estimate the UTL, several assumptions must be met. The data used to estimate BTVs should have no outliers and show spatial and temporal stationarity (EPA 2009). The objective of UTLs is to compute “background statistics based upon a dataset which represents the main background population, and does not accommodate the few low probability [extreme] outliers (e.g., coming from extreme tails of the distribution) that may also be present in the sampled data” (USEPA 2015a). Since the presence of outliers tends to yield distorted (i.e., poor and misleading) values for decision-making statistics (e.g., UTLs), it is recommended that extreme outliers not be included in background data when estimating BTVs such as UTLs (EPA 2009, EPA 2015a). Therefore, the zone-wide, depth-specific UTL95-95s were estimated with and without the verified outliers if present in the background dataset to verify the BTV(s) were not unduly affected by the outlier(s), as these outliers would not be representative of the background conditions and skew the data, thus potentially resulting in inflated variance, unrealistic estimates, and ultimately false negative (or false positive) results in future inter-location comparisons.

A reliable zone-depth specific UTL may be estimated for any analyte with at least eight samples and four detected results above the MDL, if no trend and no spatial variation may be assumed. Because the data were collected during one single sampling event, temporal and spatial stationarity of the underlying populations could not be assessed; the UTLs will have to be considered with caution. For any analyte-zone-depth combination not meeting the sample size and detection requirements for the estimation of a reliable UTL95-95, the industrial soil screening level (SSL) for surface results and the construction worker SSL for subsurface results found in the current version of the New Mexico Environment Department Risk Assessment Guidance for Site Investigations and Remediation, Volume I, Soils Screening Guidance for Human Health Risk Assessments (NMED 2021), will be used as BTV in lieu of UTL95-95.

For each analyte-zone-depth combination, normal, lognormal, and gamma distributions were evaluated as potential underlying distributions of the background data using statistical tests such as the Shapiro-Wilk's Goodness-of-Fit test. Because even relatively small frequencies (i.e., less than 5 to 10%) of ND values can force goodness-of-fit tests to reject their null hypothesis (i.e., the data come from a specific distribution), the goodness of fit tests were performed on the detected values only. It was assumed that the ND values followed the same distribution as the detects (EPA 2015a). If none of the distributions fitted the data, a nonparametric alternative such as highest order statistic was considered even though this tolerance interval most likely did not achieve the desired coverage and should not be used for assessment/compliance purposes (EPA 2015a, EPA 2009). In addition, in the presence of ND values, the



Summary of Statistical Methods and Results for the 2022 Background Evaluation
 Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
 December 14, 2022
 Page 4

EPA's recommended Kaplan-Meier (KM) estimates for the sample mean and sample standard deviation were used to compute the tolerance limits to account for the censored data and avoid any biases that the traditional ND substitution method usually generates (EPA 2015a). UTL95-95 estimates with and without outliers are presented in Attachment A.

2.0 Results

Seven outliers were identified in the background data (Attachment A):

- Total antimony in Rehobeth Zone at 5 - 6 ft: Location BI-15, result = 2.9 mg/kg (overall $\tilde{x}$ = 0.156 mg/kg, $\bar{x}$ = 0.426 mg/kg, and s = 0.82 mg/kg).
- Chloride in Rehobeth Zone at 0 - 1 ft: Location BI-21, result = 749 mg/kg (overall $\tilde{x}$ = 15.7 mg/kg, $\bar{x}$ = 82.891 mg/kg, and s = 221.01 mg/kg).
- Chloride in Simitarq-Celavar Zone at 0 - 1 ft: Location BI-8, result = 173 mg/kg (overall $\tilde{x}$ = 10.39 mg/kg, $\bar{x}$ = 31.419 mg/kg, and s = 51.21 mg/kg).
- Chloride in Simitarq-Celavar Zone at 5 - 6 ft: Location BI-8, result = 17.8 mg/kg (overall $\tilde{x}$ = 196 mg/kg, $\bar{x}$ = 201.75 mg/kg, and s = 129.56 mg/kg).
- Total manganese in Simitarq-Celavar Zone at 0 - 1 ft: Location BI-8, result = 110 mg/kg (overall $\tilde{x}$ = 599 mg/kg, $\bar{x}$ = 714.4 mg/kg, and s = 407.19 mg/kg).
- Total mercury in Simitarq-Celavar Zone at 5 - 6 ft: Location BI-8, result = 0.0612 mg/kg (overall $\tilde{x}$ = 0.007595 mg/kg, $\bar{x}$ = 0.014 mg/kg, and s = 0.02 mg/kg).
- Total vanadium in Rehobeth Zone at 5 - 6 ft: Location BI-20, result = 2840 mg/kg (overall $\tilde{x}$ = 16.3 mg/kg, $\bar{x}$ = 275.427 mg/kg, and s = 850.6 mg/kg).

Total silver was not detected in any of the samples collected from both zones; no UTLs were estimated for this analyte (Attachment A). In addition, the following analytes were detected in less than 4 samples in following zone-depths; no UTL95-95 were estimated either for the following (Attachment A):

- Total antimony in Simitarq-Celavar Zone at 5 to 6 ft
- Total cadmium in both Rehobeth and Simitarq-Celavar Zone at both depths
- Total selenium in both Rehobeth and Simitarq-Celavar Zone at both depths

UTL95-95s were estimated for all other analyte-zone-depth combinations and are presented in Attachment A. UTL95-95 estimated from data with an outlier should be used for informational purposes only and to assess the impact of the presence of the outlier on the BTV. In addition, no underlying population distribution could be identified for total manganese in surface samples from the Rehobeth Zone and total uranium in surface samples from the Simitarq-Celavar Zone; the highest order statistic is reported as BTV for those analyte-zone depth combination. Because the sample size is small (i.e., less



Summary of Statistical Methods and Results for the 2022 Background Evaluation
Western Refining Southwest LLC, D/B/A Marathon Gallup Refinery, Gallup, New Mexico
December 14, 2022
Page 5

than 59 to 60), those UTL do not achieve the desired coverage (their actual confidence coefficient ranges from 0.401 to 0.431 instead of 0.95) and should be used with caution.

3.0 References

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ATTACHMENT A

**RESULTS FROM DESCRIPTIVE AND OUTLIER ANALYSES WITH UTL95-95 ESTIMATION
(JANUARY 2022)**

ATTACHMENT A. RESULTS FROM DESCRIPTIVE AND OUTLIER ANALYSES WITH UTL95-95 ESTIMATION (JANUARY 2022)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

Analyte	Category	Zone	Depth (ft)	Exploratory and Descriptive Analysis (EDA)										Outliers Location (Result)	With Outliers ¹			Without Outliers ¹		
				Sample Size	Sample Mean ^{2,3}	Sample Median ^{2,3}	Sample Std. Dev.	Nb. Detects	Minimum Detected ^{2,3}	Maximum Detected ^{2,3}	Minimum MDL ^{2,3}	Maximum MDL ^{2,3}	% Detects		Distribution	UTL Type	UTL95-95 (Actual CC if not 0.95) ⁴	Distribution	UTL Type	UTL95-95 (Actual CC if not 95%) ^{4,5}
Antimony, Total	METALS	Rehobeth	0 - 1	11	0.229	0.214	0.08	7	0.204	0.357	0.13	0.165	63.64%	None	--		--	Normal	Normal-KM UTL95-95	0.451
Antimony, Total	METALS	Rehobeth	5 - 6	11	0.426	0.156	0.82	8	0.135	2.9	0.116	0.148	72.73%	BI-15 (2.9)	NP	NP HOS UTL	2.9 (0.431)	Normal	Normal-KM UTL95-95	0.35
Antimony, Total	METALS	Simitarq-Celavar	0 - 1	10	0.150	0.147	0.02	5	0.155	0.188	0.116	0.143	50.00%	None	--		--	Normal	Normal-KM UTL95-95	0.227
Antimony, Total	METALS	Simitarq-Celavar	5 - 6	10	0.144	0.1235	0.06	3	0.122	0.301	0.113	0.136	30.00%	None	--		--	--		0.301
Arsenic, Total	METALS	Rehobeth	0 - 1	11	1.681	1.54	0.35	11	1.24	2.34	0.671	0.853	100.00%	None	--		--	Normal	Normal UTL95-95	2.668
Arsenic, Total	METALS	Rehobeth	5 - 6	11	1.583	1.55	0.40	11	0.853	2.31	0.603	0.767	100.00%	None	--		--	Normal	Normal UTL95-95	2.718
Arsenic, Total	METALS	Simitarq-Celavar	0 - 1	10	1.955	1.93	0.72	9	1.36	3.12	0.602	0.744	90.00%	None	--		--	Normal	Normal-KM UTL95-95	3.94
Arsenic, Total	METALS	Simitarq-Celavar	5 - 6	10	1.594	1.345	0.79	10	0.736	3.45	0.587	0.707	100.00%	None	--		--	Gamma	WH Approx. Gamma UTL95-95	4.502
Barium, Total	METALS	Rehobeth	0 - 1	11	278.727	286	64.46	11	198	422	0.378	0.48	100.00%	None	--		--	Normal	Normal UTL95-95	460.2
Barium, Total	METALS	Rehobeth	5 - 6	11	277.909	287	82.88	11	155	400	0.339	0.431	100.00%	None	--		--	Normal	Normal UTL95-95	511.2
Barium, Total	METALS	Simitarq-Celavar	0 - 1	10	550.200	434.5	384.14	10	106	1270	0.338	0.418	100.00%	None	--		--	Normal	Normal UTL95-95	1668
Barium, Total	METALS	Simitarq-Celavar	5 - 6	10	502.400	367.5	411.50	10	92	1370	0.33	0.397	100.00%	None	--		--	Normal	Normal UTL95-95	1700
Beryllium, Total	METALS	Rehobeth	0 - 1	11	1.123	1.06	0.13	11	0.981	1.33	0.201	0.256	100.00%	None	--		--	Normal	Normal UTL95-95	1.487
Beryllium, Total	METALS	Rehobeth	5 - 6	11	1.014	0.979	0.24	11	0.709	1.43	0.181	0.23	100.00%	None	--		--	Normal	Normal UTL95-95	1.683
Beryllium, Total	METALS	Simitarq-Celavar	0 - 1	10	0.697	0.7	0.12	10	0.555	0.898	0.18	0.223	100.00%	None	--		--	Normal	Normal UTL95-95	1.05
Beryllium, Total	METALS	Simitarq-Celavar	5 - 6	10	0.948	0.7975	0.45	10	0.499	2.06	0.176	0.212	100.00%	None	--		--	Gamma	WH Approx. Gamma UTL95-95	2.554
Cadmium, Total	METALS	Rehobeth	0 - 1	11	0.143	0.142	0.01	2	0.142	0.167	0.126	0.16	18.18%	None	--		--	--		0.167
Cadmium, Total	METALS	Rehobeth	5 - 6	11	0.127	0.128	0.01	1	0.137	0.137	0.113	0.144	9.09%	None	--		--	--		0.137
Cadmium, Total	METALS	Simitarq-Celavar	0 - 1	10	0.137	0.132	0.02	2	0.15	0.19	0.113	0.14	20.00%	None	--		--	--		0.19
Cadmium, Total	METALS	Simitarq-Celavar	5 - 6	10	0.128	0.1205	0.02	1	0.187	0.187	0.11	0.133	10.00%	None	--		--	--		0.187
Chloride	GENERAL	Rehobeth	0 - 1	11	82.891	15.7	221.01	11	10.1	749	4.43	5.02	100.00%	BI-21 (749)	NP	NP HOS UTL	749 (0.431)	Normal	Normal UTL95-95	35.23
Chloride	GENERAL	Rehobeth	5 - 6	11	189.727	210	63.01	11	107	298	3.89	4.51	100.00%	None	--		--	Normal	Normal UTL95-95	367.1
Chloride	GENERAL	Simitarq-Celavar	0 - 1	10	31.419	10.39	51.21	10	5.3	173	3.81	4.54	100.00%	BI-8 (173)	Lognormal	Lognormal UTL95-95	368.1	Gamma	WH Approx. Gamma UTL95-95	74.04
Chloride	GENERAL	Simitarq-Celavar	5 - 6	10	201.750	196	129.56	10	17.8	386	3.79	4.34	100.00%	BI-8 (17.8)	Normal	Normal UTL95-95	578.9	Normal	Normal UTL95-95	583.2
Chromium, Total	METALS	Rehobeth	0 - 1	11	16.391	16.9	2.14	11	13.5	19.2	0.295	0.375	100.00%	None	--		--	Normal	Normal UTL95-95	22.43
Chromium, Total	METALS	Rehobeth	5 - 6	11	13.458	12.2	5.51	11	7.63	25.3	0.265	0.337	100.00%	None	--		--	Normal	Normal UTL95-95	28.97
Chromium, Total	METALS	Simitarq-Celavar	0 - 1	10	12.402	12.9	3.04	10	7.21	16.9	0.264	0.327	100.00%	None	--		--	Normal	Normal UTL95-95	21.25
Chromium, Total	METALS	Simitarq-Celavar	5 - 6	10	14.022	12.9	6.85	10	7.29	30.8	0.258	0.311	100.00%	None	--		--	Gamma	WH Approx. Gamma UTL95-95	39.01
Cobalt, Total	METALS	Rehobeth	0 - 1	11	6.335	6.17	0.67	11	5.49	7.61	0.125	0.158	100.00%	None	--		--	Normal	Normal UTL95-95	8.222
Cobalt, Total	METALS	Rehobeth	5 - 6	11	5.597	5.16	1.49	11	3.83	8.57	0.112	0.142	100.00%	None	--		--	Normal	Normal UTL95-95	9.805
Cobalt, Total	METALS	Simitarq-Celavar	0 - 1	10	4.728	4.7	0.74	10	3.48	6.03	0.112	0.138	100.00%	None	--		--	Normal	Normal UTL95-95	6.884
Cobalt, Total	METALS	Simitarq-Celavar	5 - 6	10	5.793	5.67	2.21	10	2.85	10.1	0.109	0.131	100.00%	None	--		--	Normal	Normal UTL95-95	12.23
Cyanide, Total	GENERAL	Rehobeth	0 - 1	11	0.118	0.119	0.05	11	0.07	0.202	0.0369	0.042	100.00%	None	--		--	Gamma	WH Approx. Gamma UTL95-95	0.295
Cyanide, Total	GENERAL	Rehobeth	5 - 6	11	0.072	0.0599	0.03	11	0.038	0.133	0.0328	0.0377	100.00%	None	--		--	Gamma	WH Approx. Gamma UTL95-95	0.181
Cyanide, Total	GENERAL	Simitarq-Celavar	0 - 1	10	0.088	0.0957	0.03	9	0.0458	0.123	0.0325	0.0376	90.00%	None	--		--	Normal	Normal-KM UTL95-95	0.169
Cyanide, Total	GENERAL	Simitarq-Celavar	5 - 6	9	0.049	0.0527	0.01	8	0.0325	0.0701	0.0317	0.0362	88.89%	None	--		--	Normal	Normal-KM UTL95-95	0.0855
Fluoride, Total	GENERAL	Rehobeth	0 - 1	11	5.064	4.38	3.53	10	1.65	11.5	1.25	1.42	90.91%	None	--		--	Normal	Normal-KM UTL95-95	14.55
Fluoride, Total	GENERAL	Rehobeth	5 - 6	11	5.035	4.61	3.84	10	1.17	11.1	1.1	1.28	90.91%	None	--		--	Normal	Normal-KM UTL95-95	15.36
Fluoride, Total	GENERAL	Simitarq-Celavar	0 - 1	10	5.660	3.435	5.13	10	1.72	16.7	1.07	1.28	100.00%	None	--		--	Gamma	WH Approx. Gamma UTL95-95	27.62
Fluoride, Total	GENERAL	Simitarq-Celavar	5 - 6	10	14.308	13.45	7.93	10	3.81	27.1	1.07	1.23	100.00%	None	--		--	Normal	Normal UTL95-95	37.38
Iron, Total	METALS	Rehobeth	0 - 1	11	15409.091	15500	1571.28	11	12500	18100	25.5	32.4	100.00%	None	--		--	Normal	Normal UTL95-95	19832
Iron, Total	METALS	Rehobeth	5 - 6	11	13790.000	12100	4875.89	11	8480	24100	2.48	26.1	100.00%	None	--		--	Normal	Normal UTL95-95	27516
Iron, Total	METALS	Simitarq-Celavar	0 - 1	10	12604.000	12550	3046.29	10	8480	16600	2.29	28.3	100.00%	None	--		--	Normal	Normal UTL95-95	21472
Iron, Total	METALS	Simitarq-Celavar	5 - 6	10	14480.000	12200	5590.23	10	9000	28300	2.23	26.9	100.00%	None	--		--	Gamma	WH Approx. Gamma UTL95-95	33343
Lead, Total	METALS	Rehobeth	0 - 1	11	12.058	12.5	1.33	11	9.94	13.6	0.211	0.268	100.00%	None	--		--	Normal	Normal UTL95-95	15.79
Lead, Total	METALS	Rehobeth	5 - 6	11	11.486	10.9	3.59	11	7.59	21	0.189	0.241	100.00%	None	--		--	Gamma	WH Approx. Gamma UTL95-95	22.78
Lead, Total	METALS	Simitarq-Celavar	0 - 1	10	7.953	7.735	1.42	10	5.36	9.92	0.189	0.233	100.00%	None	--		--	Normal	Normal UTL95-95	12.07
Lead, Total	METALS	Simitarq-Celavar	5 - 6	10	10.136	9.84	3.01	10	6.4	17.2	0.184	0.222	100.00%	None	--		--	Normal	Normal UTL95-95	18.9
Manganese, Total	METALS	Rehobeth	0 - 1	11	539.455	449	159.88	11	359	732	0.277	0.352	100.00%	None	--		--	NP	NP HOS UTL	732 (0.431)
Manganese, Total	METALS	Rehobeth	5 - 6	11	541.364	493	177.85	11	336	800	0.249	0.316	100.00%	None	--		--	Normal	Normal UTL95-95	1042
Manganese, Total	METALS	Simitarq-Celavar	0 - 1	10	714.400	599	407.19	10	110	1480	0.248	2.65	100.00%	BI-8 (110)	Normal	Normal UTL95-95	1900	Normal	Normal UTL95-95	1898
Manganese, Total	METALS	Simitarq-Celavar	5 - 6	10	654.400	529	416.08	10	211	1540	0.242	2.61	100.00%	None	--		--	Normal	Normal UTL95-95	1866
Mercury, Total	METALS	Rehobeth	0 - 1	11	0.013	0.0127	0.00	11	0.00795	0.0201	0.00431	0.00542	100.00%	None	--		--	Normal	Normal UTL95-95	0.0239
Mercury, Total	METALS	Rehobeth	5 - 6	11	0.007	0.00682	0.00	11	0.00602	0.0101	0.00391	0.00451	100.00%	None	--		--	Normal	Normal UTL95-95	0.0109
Mercury, Total	METALS	Simitarq-Celavar	0 - 1	10	0.014	0.0142	0.01	9	0.00846	0.0241	0.00394	0.00501	90.00%	None	--		--	Normal	Normal-KM UTL95-95	0.0309
Mercury, Total	METALS	Simitarq-Celavar	5 - 6	10	0.014	0.007595	0.02	8	0.00591	0.0612	0.00361	0.00459	80.00%	BI-8 (0.0612)	NP	NP HOS UTL	0.0612 (0.401)	Gamma	WH Approx. Gamma-KM UTL95-95	0.0249
Nickel, Total	METALS	Rehobeth	0 - 1	11	12.618	13.1	1.68	11	10.4	15	0.16	0.203	100.00%	None	--		--	Normal	Normal UTL95-95	17.35

ATTACHMENT A. RESULTS FROM DESCRIPTIVE AND OUTLIER ANALYSES WITH UTL95-95 ESTIMATION (JANUARY 2022)
WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO

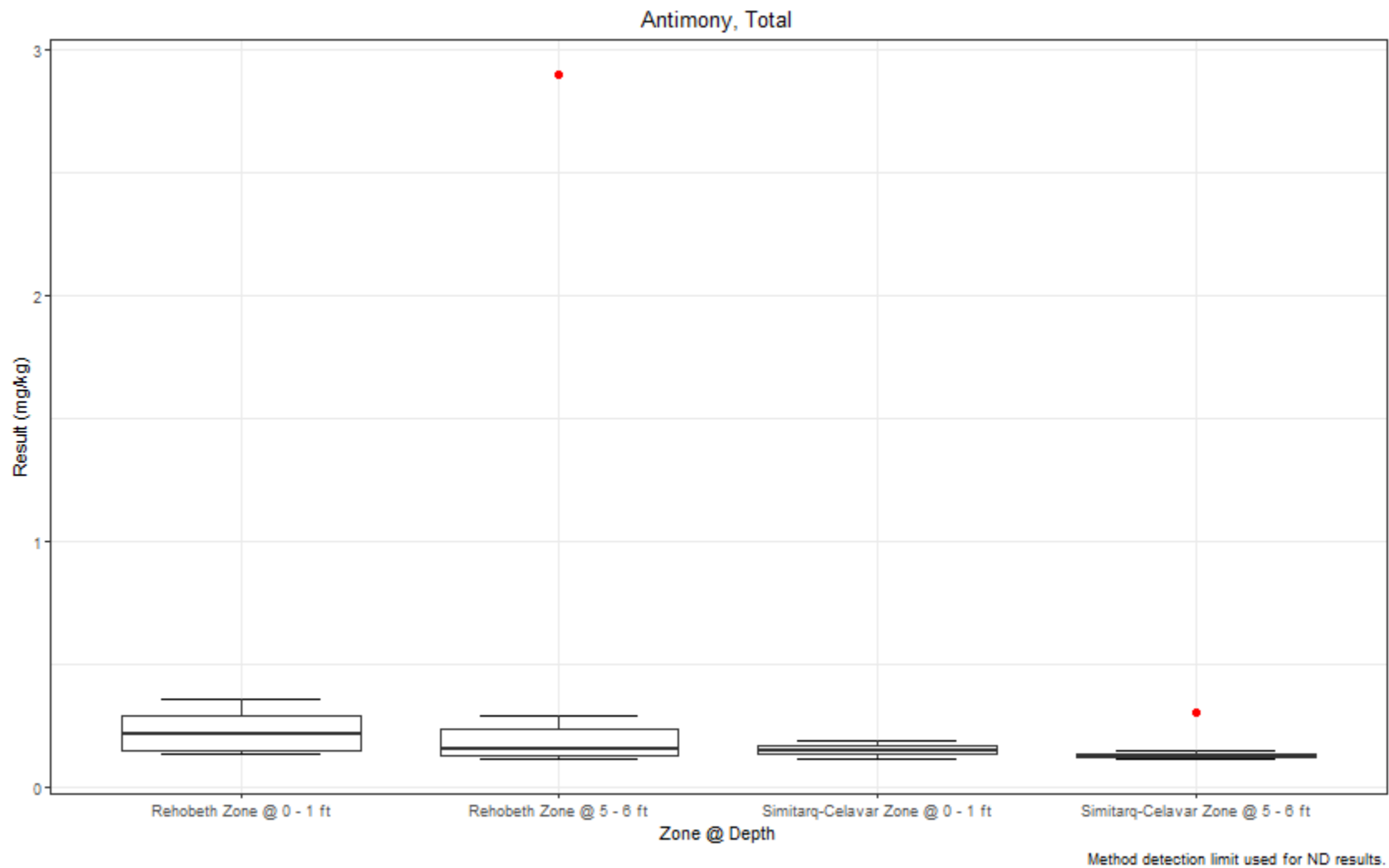
Analyte	Category	Zone	Depth (ft)	Exploratory and Descriptive Analysis (EDA)										Outliers Location (Result)	With Outliers ¹			Without Outliers ¹		
				Sample Size	Sample Mean ^{2,3}	Sample Median ^{2,3}	Sample Std. Dev.	Nb. Detects	Minimum Detected ^{2,3}	Maximum Detected ^{2,3}	Minimum MDL ^{2,3}	Maximum MDL ^{2,3}	% Detects		Distribution	UTL Type	UTL95-95 (Actual CC if not 0.95) ⁴	Distribution	UTL Type	UTL95-95 (Actual CC if not 95%) ^{4,5}
Nickel, Total	METALS	Rehobeth	5 - 6	11	11.274	10.3	3.82	11	7.01	18.7	0.144	0.182	100.00%	None	--	--	--	Normal	Normal UTL95-95	22.03
Nickel, Total	METALS	Simitarq-Celavar	0 - 1	10	8.224	8.255	1.38	10	6.01	10.5	0.143	0.177	100.00%	None	--	--	--	Normal	Normal UTL95-95	12.25
Nickel, Total	METALS	Simitarq-Celavar	5 - 6	10	10.164	9.155	4.51	10	4.96	20.5	0.14	0.168	100.00%	None	--	--	--	Normal	Normal UTL95-95	23.29
Selenium, Total	METALS	Rehobeth	0 - 1	11	0.605	0.601	0.04	2	0.544	0.654	0.54	0.686	18.18%	None	--	--	--	--		0.654
Selenium, Total	METALS	Rehobeth	5 - 6	11	0.558	0.547	0.05	2	0.605	0.671	0.485	0.617	18.18%	None	--	--	--	--		0.671
Selenium, Total	METALS	Simitarq-Celavar	0 - 1	10	0.578	0.5575	0.08	2	0.662	0.763	0.484	0.598	20.00%	None	--	--	--	--		0.763
Selenium, Total	METALS	Simitarq-Celavar	5 - 6	10	0.529	0.519	0.04	2	0.543	0.606	0.473	0.568	20.00%	None	--	--	--	--		0.606
Silver, Total	METALS	Rehobeth	0 - 1	11	0.192	0.192	0.01	0	--	--	0.173	0.22	0.00%	--	--	--	--	--		--
Silver, Total	METALS	Rehobeth	5 - 6	11	0.173	0.174	0.01	0	--	--	0.155	0.197	0.00%	--	--	--	--	--		--
Silver, Total	METALS	Simitarq-Celavar	0 - 1	10	0.174	0.1735	0.01	0	--	--	0.155	0.192	0.00%	--	--	--	--	--		--
Silver, Total	METALS	Simitarq-Celavar	5 - 6	10	0.165	0.164	0.01	0	--	--	0.151	0.182	0.00%	--	--	--	--	--		--
Uranium, Total	METALS	Rehobeth	0 - 1	11	0.605	0.561	0.18	11	0.419	0.903	0.0651	0.0827	100.00%	None	--	--	--	Normal	Normal UTL95-95	1.102
Uranium, Total	METALS	Rehobeth	5 - 6	11	0.929	0.733	0.74	11	0.37	2.88	0.0585	0.0743	100.00%	None	--	--	--	Gamma	WH Approx. Gamma UTL95-95	3.613
Uranium, Total	METALS	Simitarq-Celavar	0 - 1	10	0.877	0.616	0.56	10	0.475	2.17	0.0583	0.0721	100.00%	None	--	--	--	NP	NP HOS UTL	2.17 (0.401)
Uranium, Total	METALS	Simitarq-Celavar	5 - 6	10	0.889	0.7905	0.45	10	0.354	1.77	0.0569	0.0685	100.00%	None	--	--	--	Normal	Normal UTL95-95	2.207
Vanadium, Total	METALS	Rehobeth	0 - 1	11	20.891	20.3	2.22	11	17.1	25.1	0.218	0.277	100.00%	None	--	--	--	Normal	Normal UTL95-95	27.13
Vanadium, Total	METALS	Rehobeth	5 - 6	11	275.427	16.3	850.60	11	12.5	2840	0.196	2.12	100.00%	BI-20 (2840)	NP	NP HOS UTL	2840 (0.431)	Gamma	WH Approx. Gamma UTL95-95	43.86
Vanadium, Total	METALS	Simitarq-Celavar	0 - 1	10	21.520	20.4	5.92	10	12.7	30.8	0.195	0.241	100.00%	None	--	--	--	Normal	Normal UTL95-95	38.74
Vanadium, Total	METALS	Simitarq-Celavar	5 - 6	10	20.410	17.15	8.60	10	10.5	37.5	0.19	0.229	100.00%	None	--	--	--	Normal	Normal UTL95-95	45.44
Zinc, Total	METALS	Rehobeth	0 - 1	11	32.055	29.2	8.08	11	21.8	45.7	0.482	0.612	100.00%	None	--	--	--	Normal	Normal UTL95-95	54.79
Zinc, Total	METALS	Rehobeth	5 - 6	11	26.173	26.6	7.87	11	13.6	42.3	0.433	0.55	100.00%	None	--	--	--	Normal	Normal UTL95-95	48.31
Zinc, Total	METALS	Simitarq-Celavar	0 - 1	10	21.390	20.9	3.49	10	16.8	29.1	0.432	0.534	100.00%	None	--	--	--	Normal	Normal UTL95-95	31.55
Zinc, Total	METALS	Simitarq-Celavar	5 - 6	10	24.950	22.45	10.95	10	14.6	52.2	0.421	0.507	100.00%	None	--	--	--	Gamma	WH Approx. Gamma UTL95-95	62.3

Abbreviations:
%: Percent
--: Not applicable
Approx.: Approximate
BI: Background Investigation (boring designation)
CC: Confidence Coefficient
ft: Feet
HOS: Highest Order Statistic
KM: Kaplan-Meier
MDL: Method Detection Limit
Nb: Number
NP: Nonparametric
Std. Dev.: Standard Deviation
UTL: Upper Tolerance Limit (of one-sided tolerance interval)
WH: Wilson-Hilferty

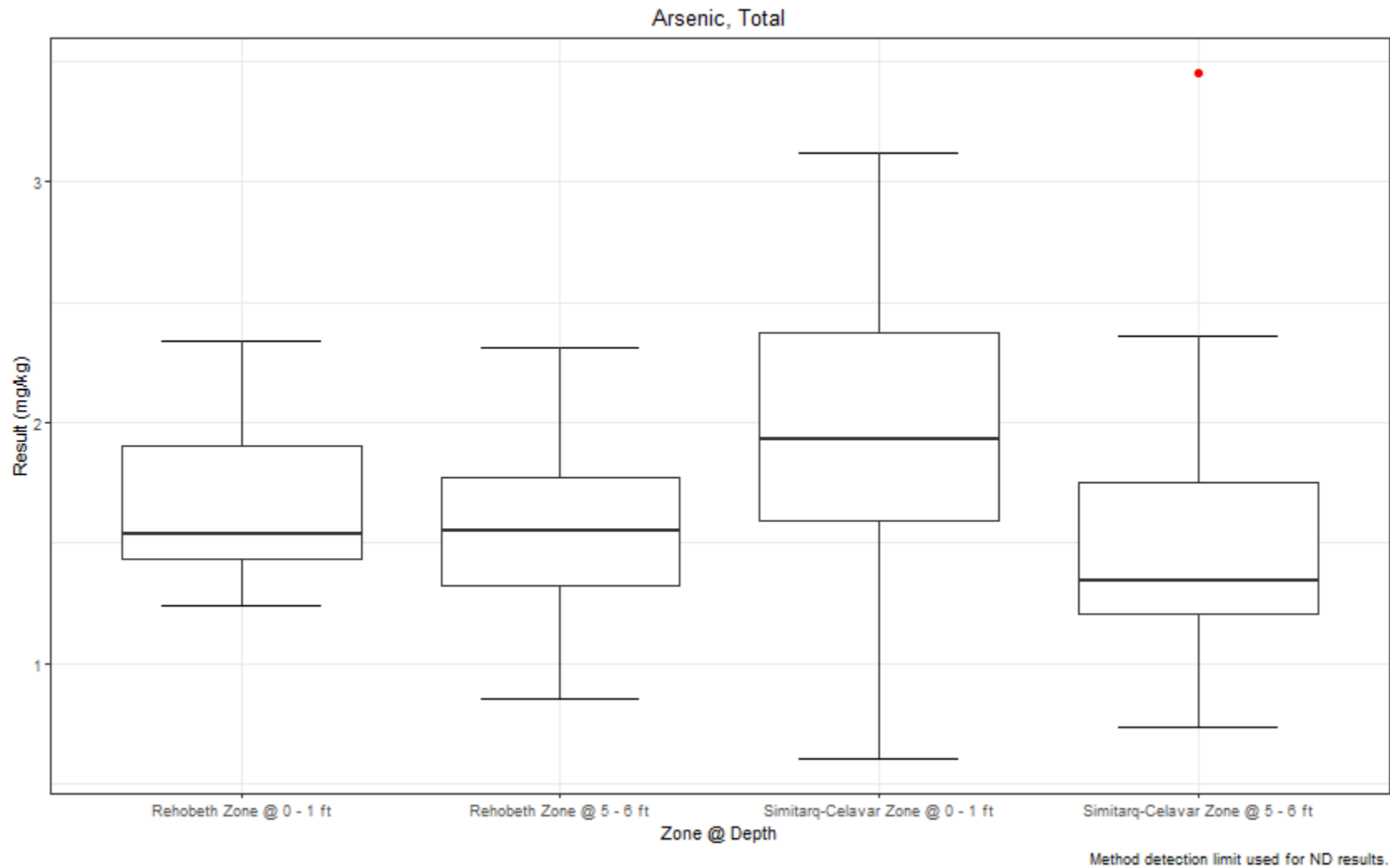
Notes:
¹Outlier analysis was performed for any analyte-zone-depth combinations with sample size of at least 4 and a detected result above the MDL.
²Results are reported in mg/kg.
³Data were collected during the same sampling event for all locations, trend and spatial variation among locations in each zone were not evaluated; UTL estimates should be used with caution.
⁴UTL95-95 was estimated for any analyte-zone-depth combination with sample size of at least 8 and four detected results above the MDL using ProUCL v5.1.
⁵If a UTL95-95 could not be calculated due to outlier, the maximum detected concentration was used unless all samples were non-detect.

ATTACHMENT B
COMPARATIVE BOXPLOTS
(JANUARY 2022)

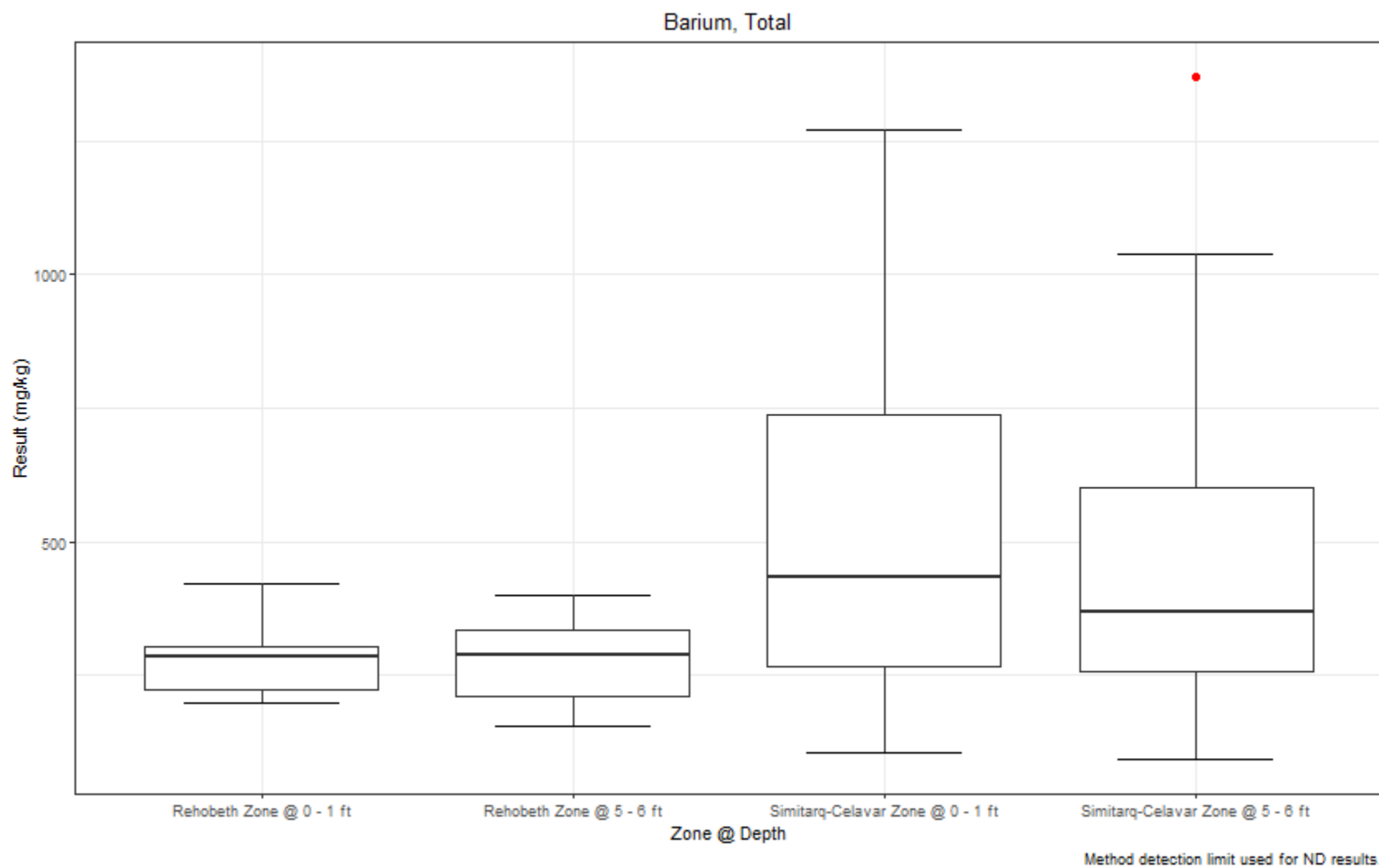
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WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO



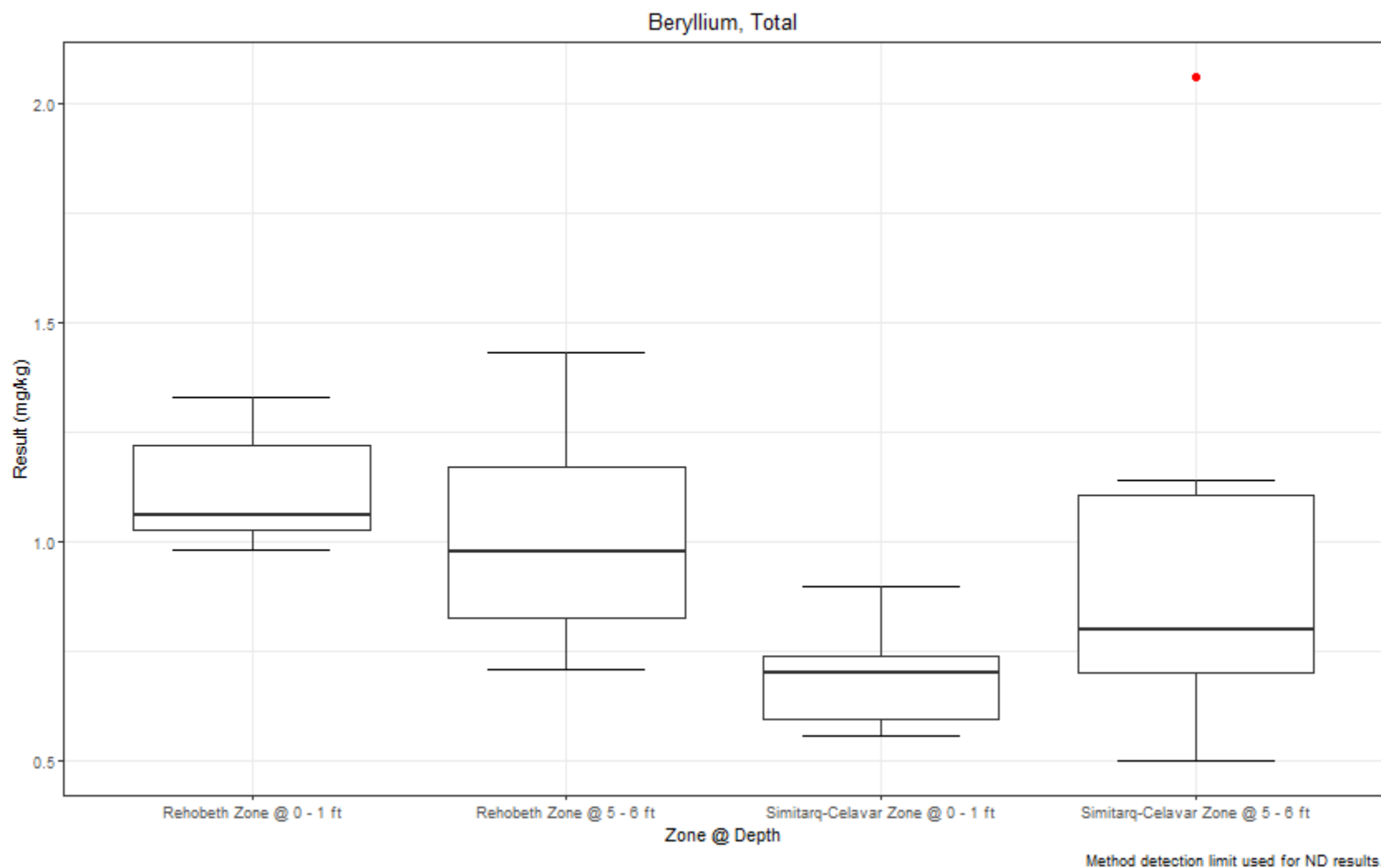
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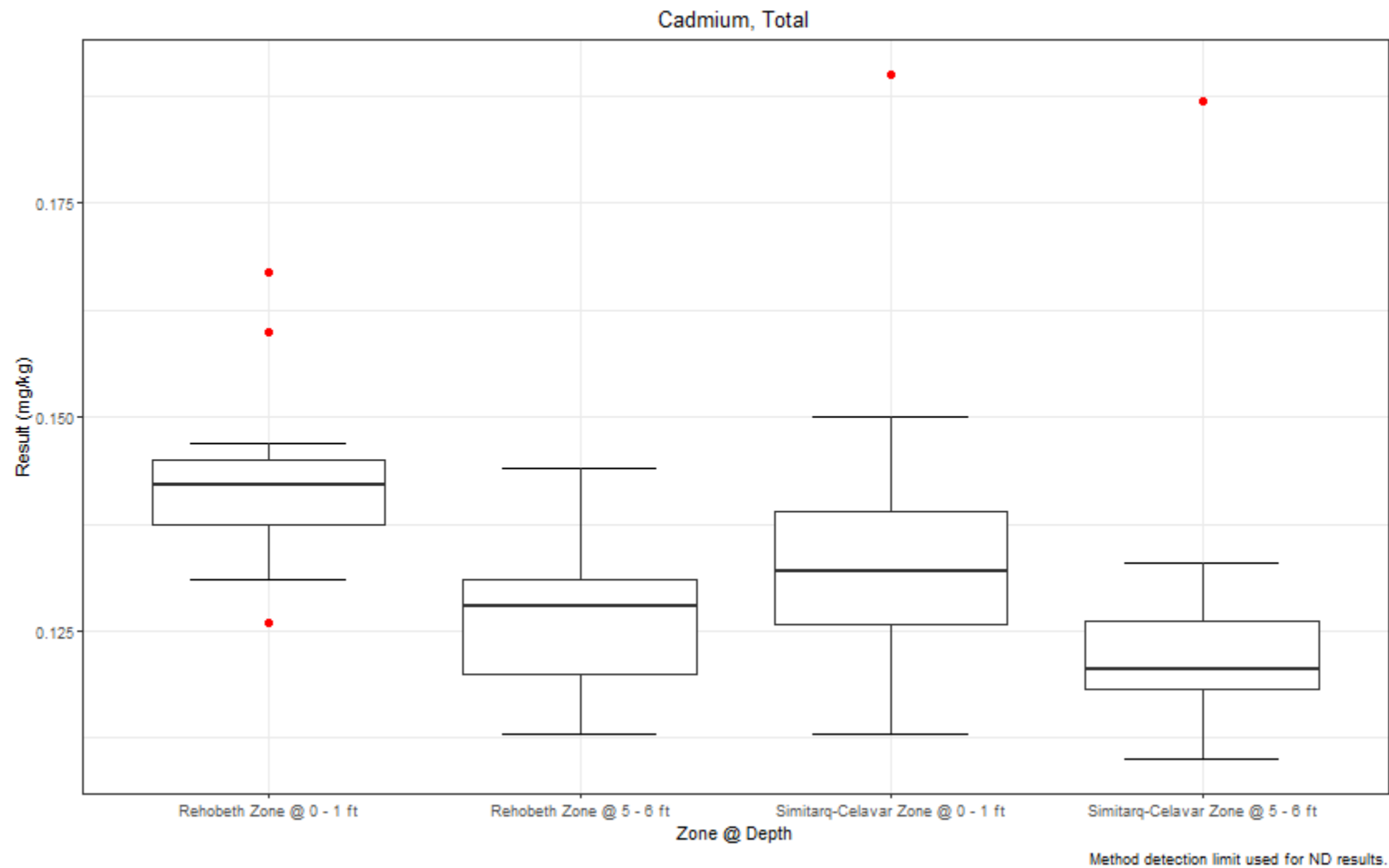
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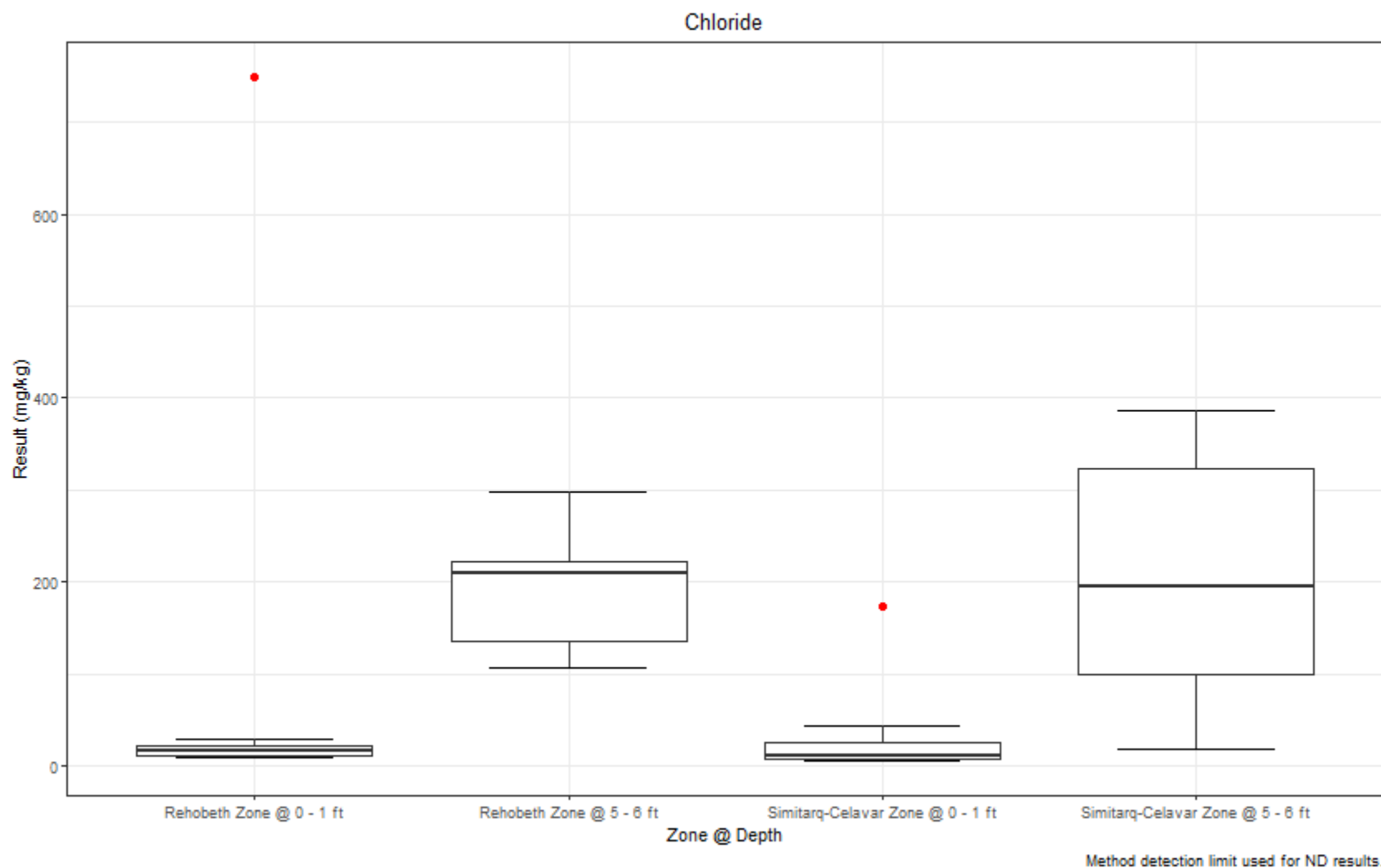
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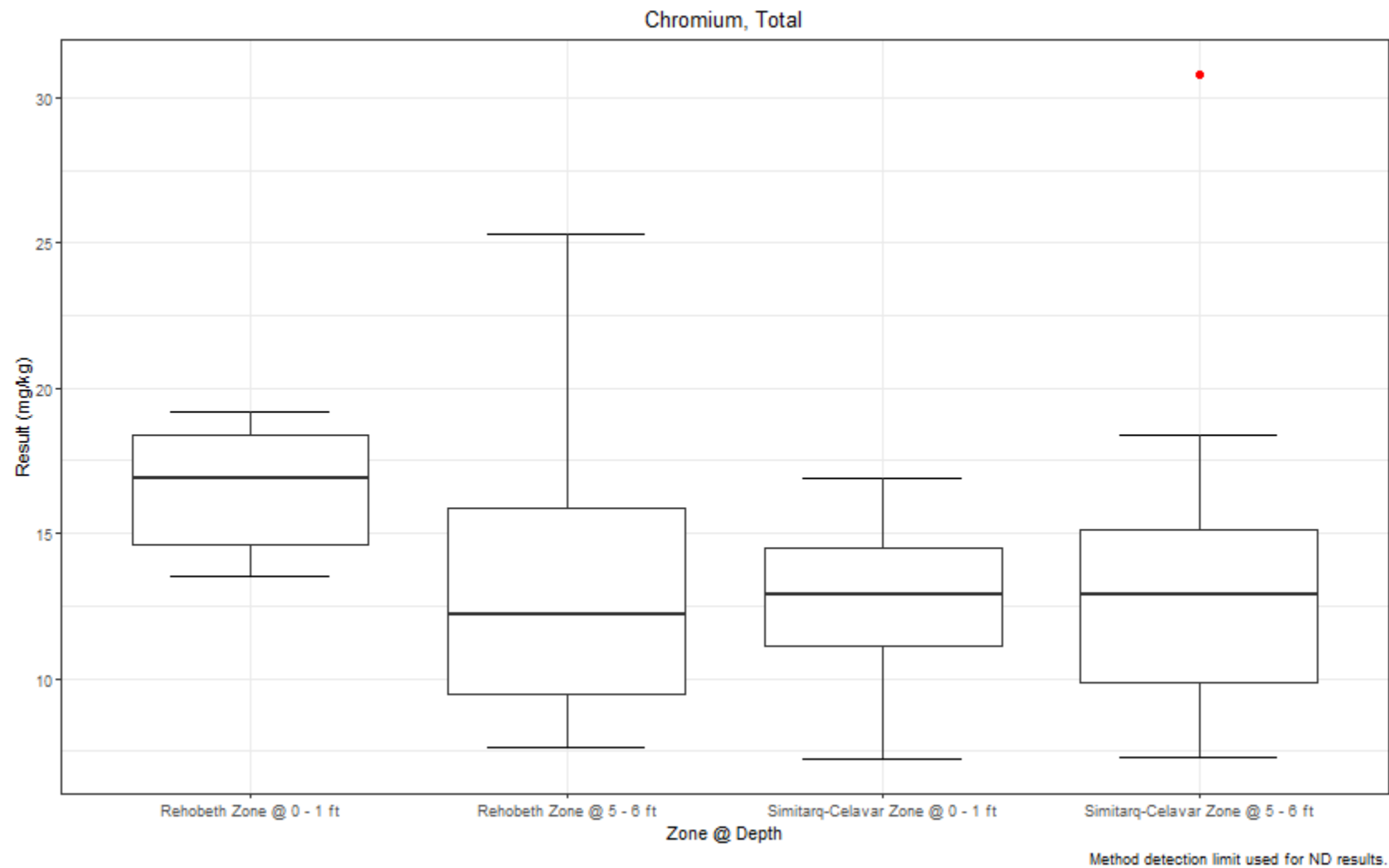
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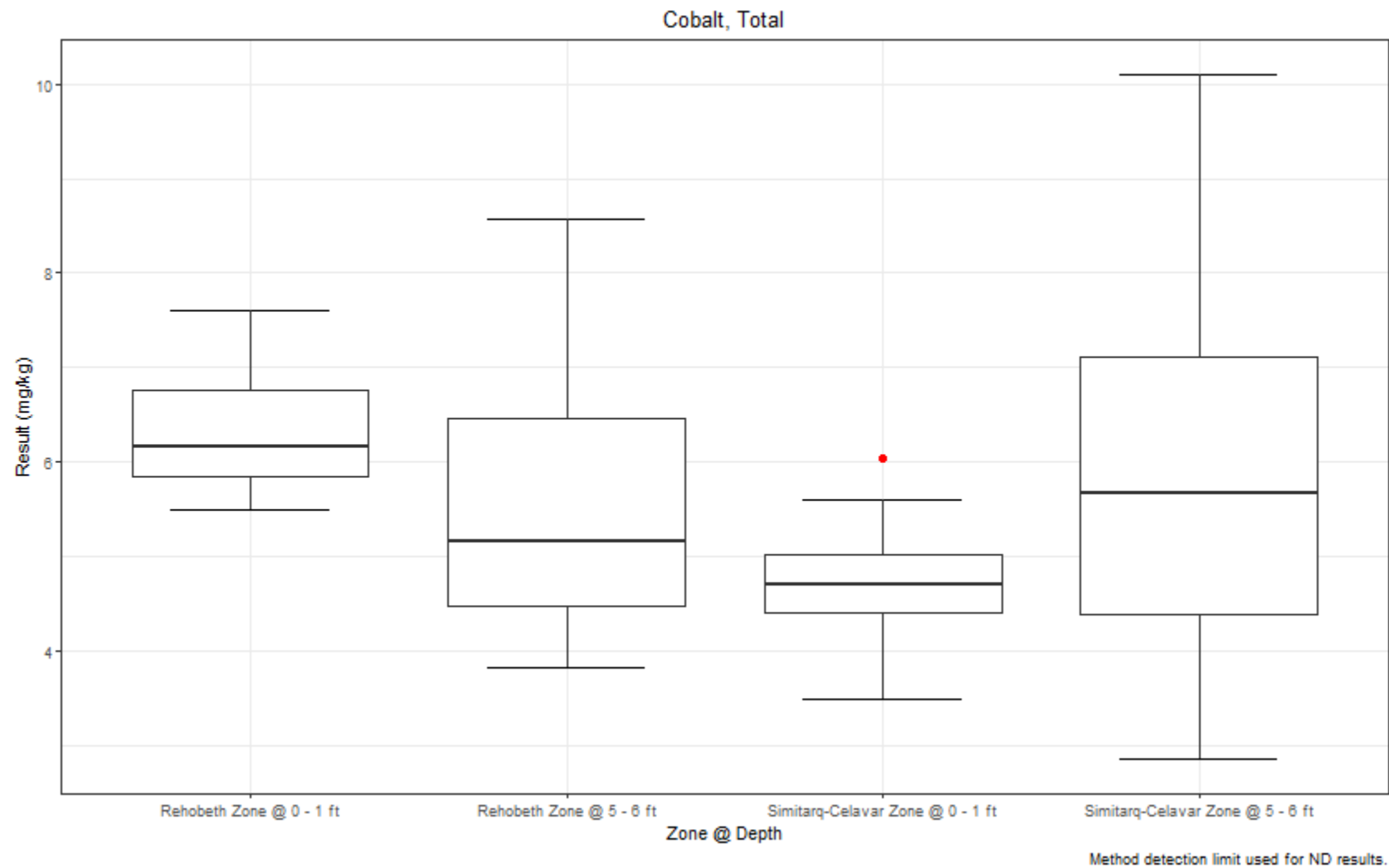
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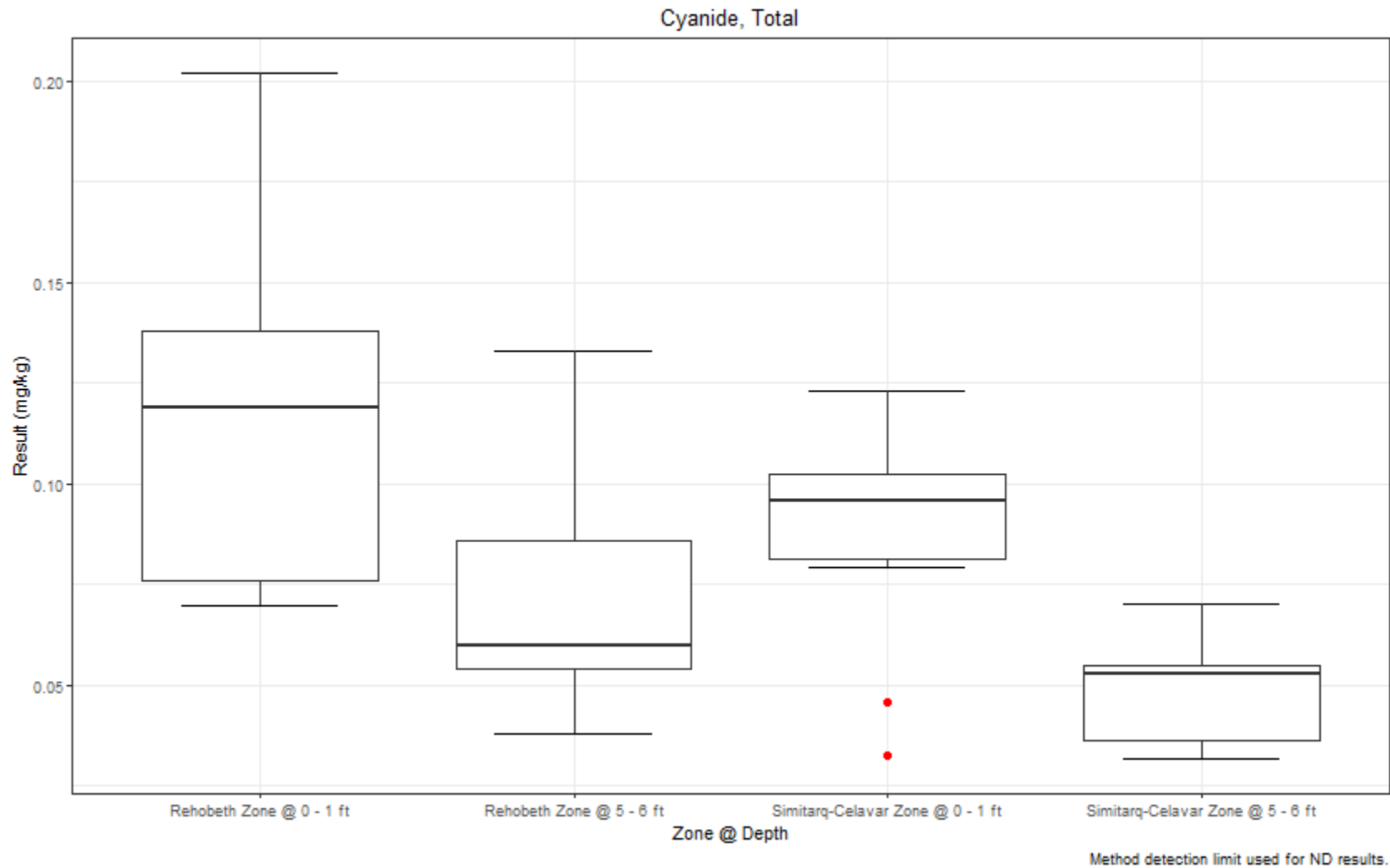
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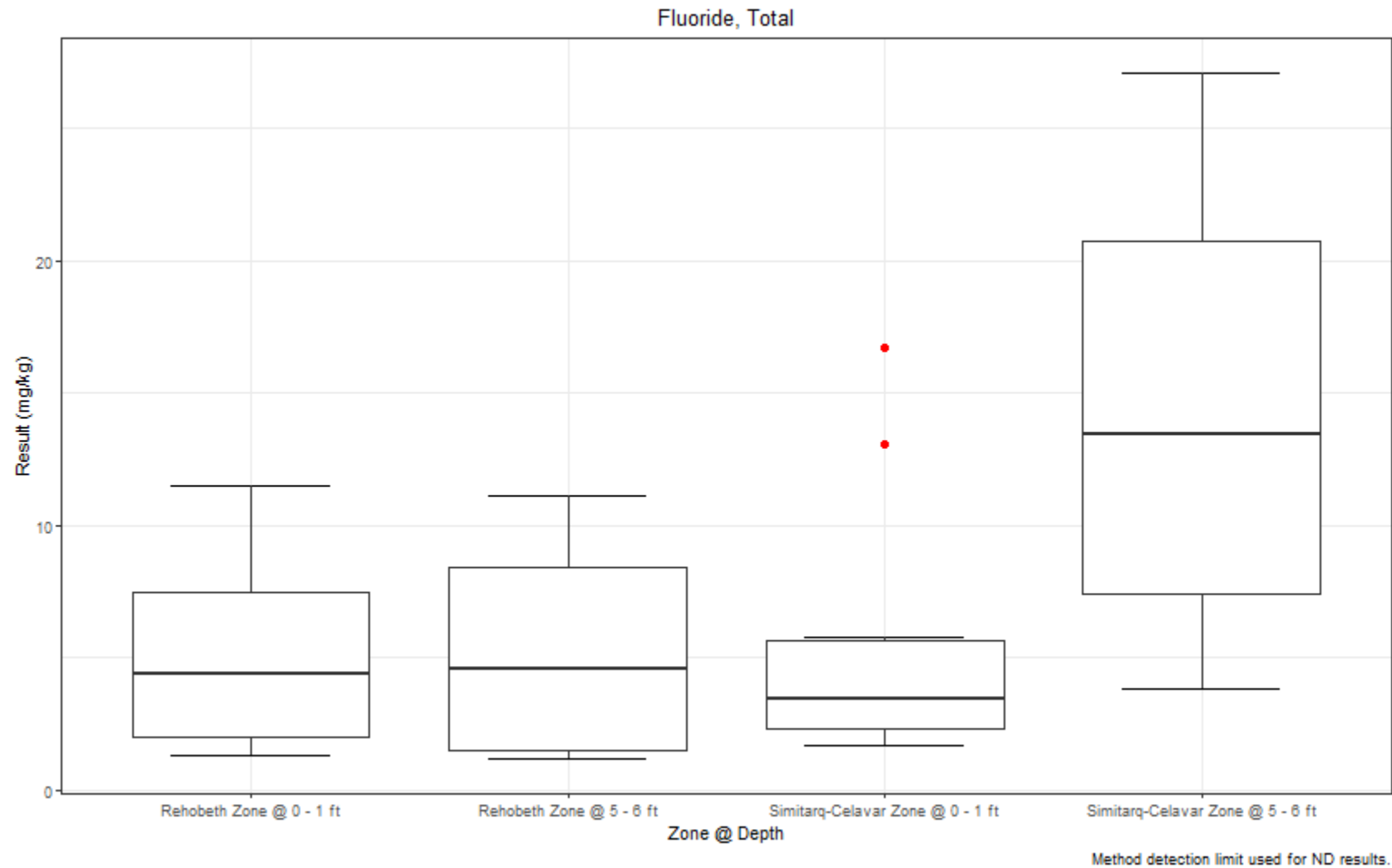
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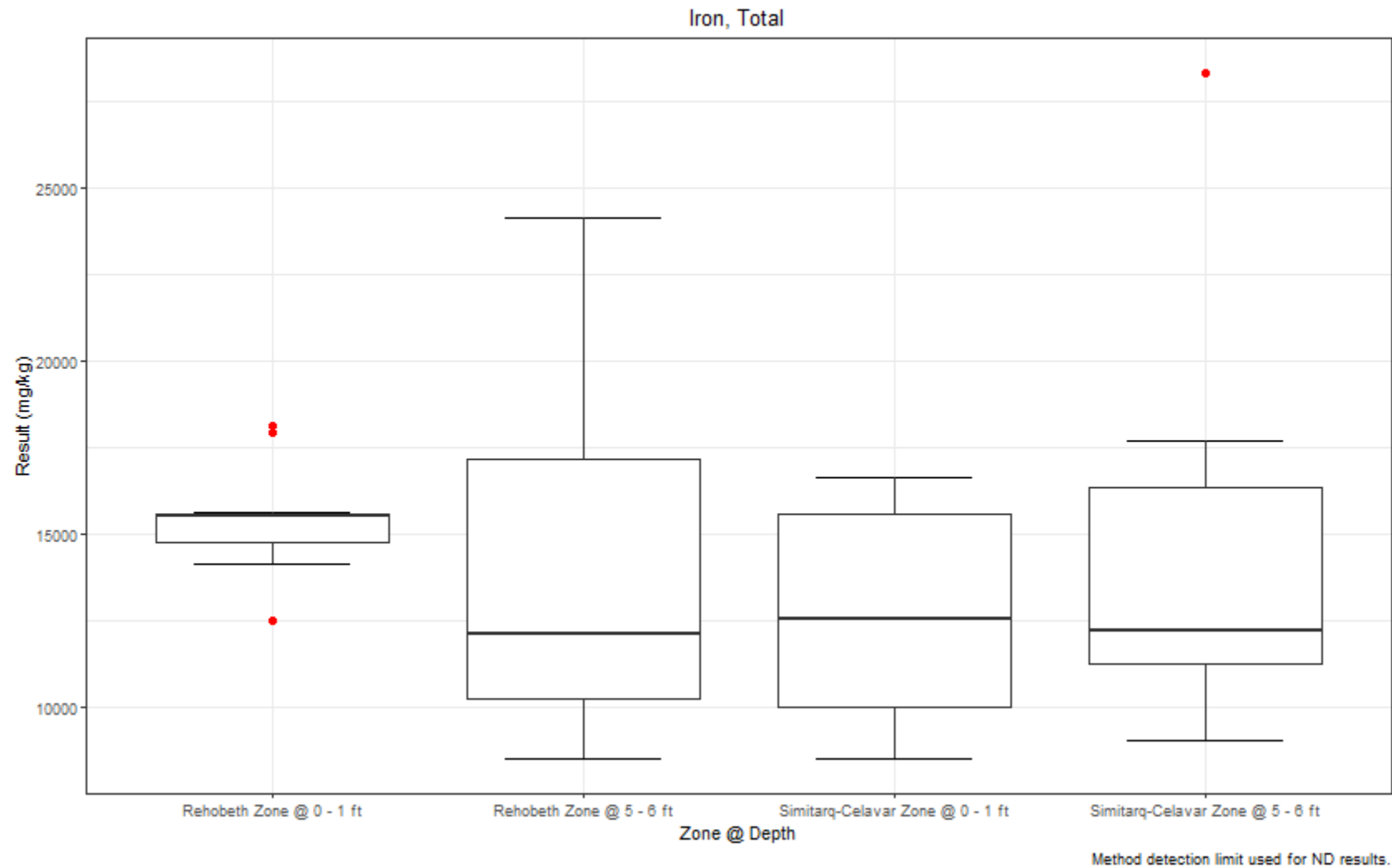
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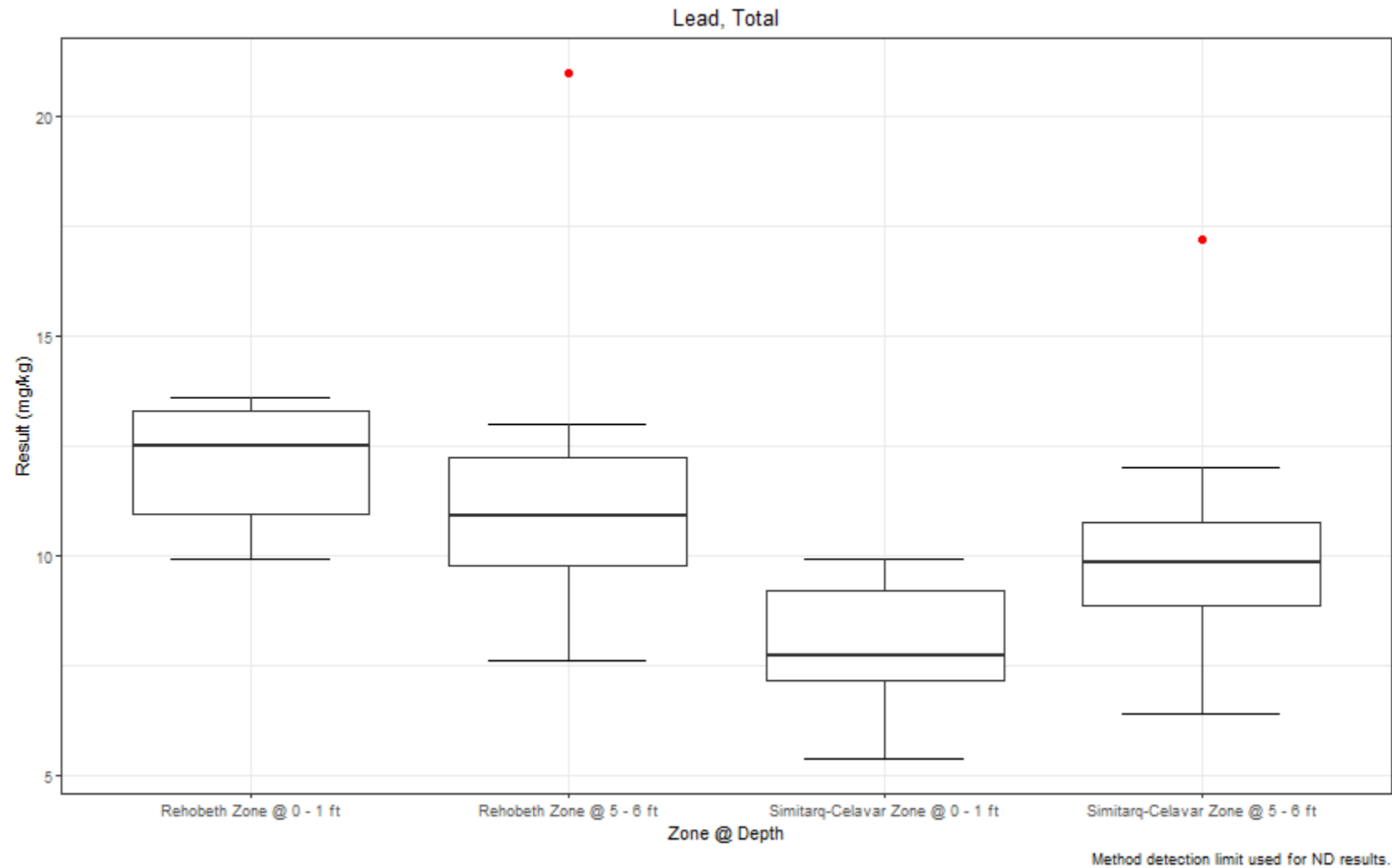
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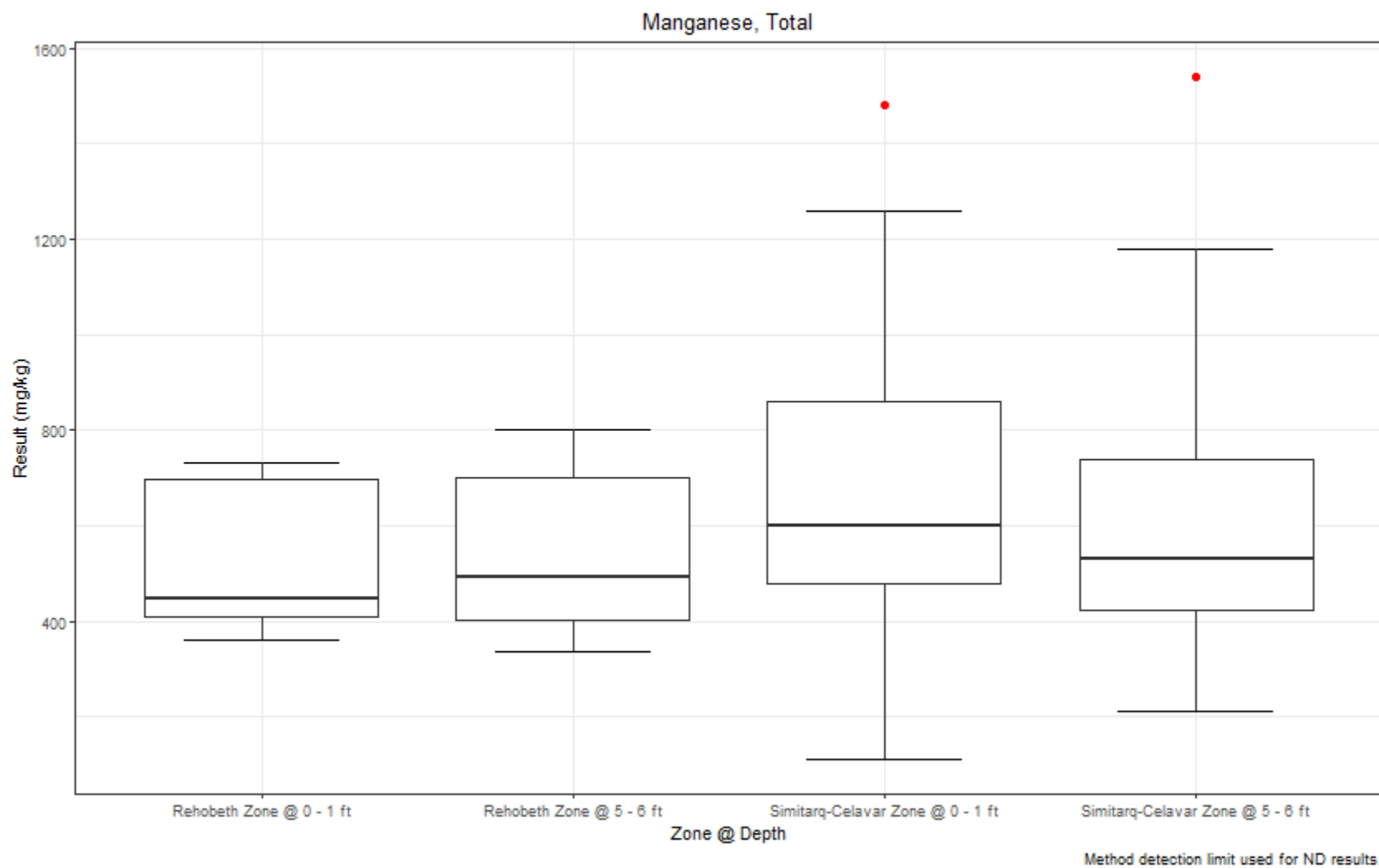
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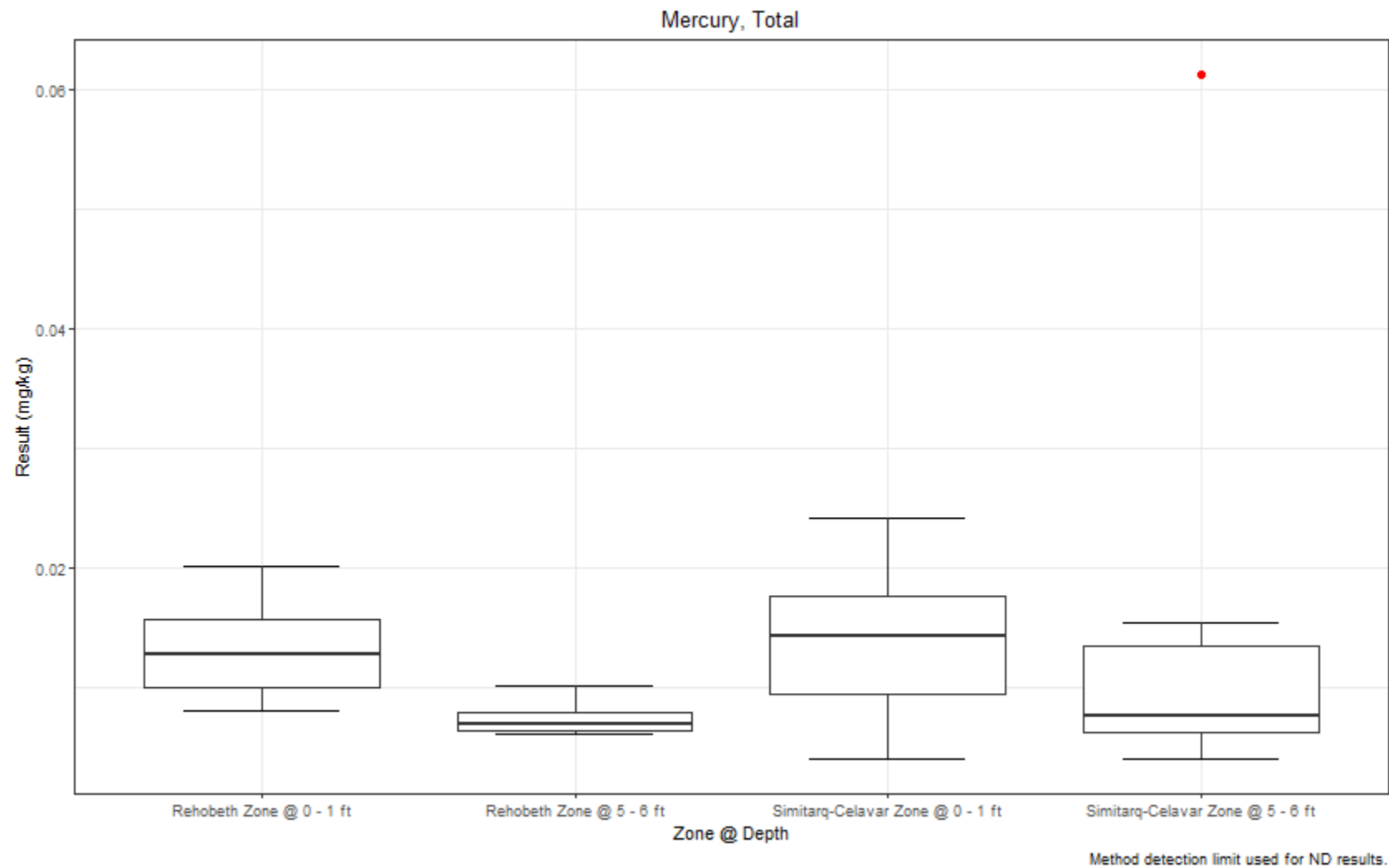
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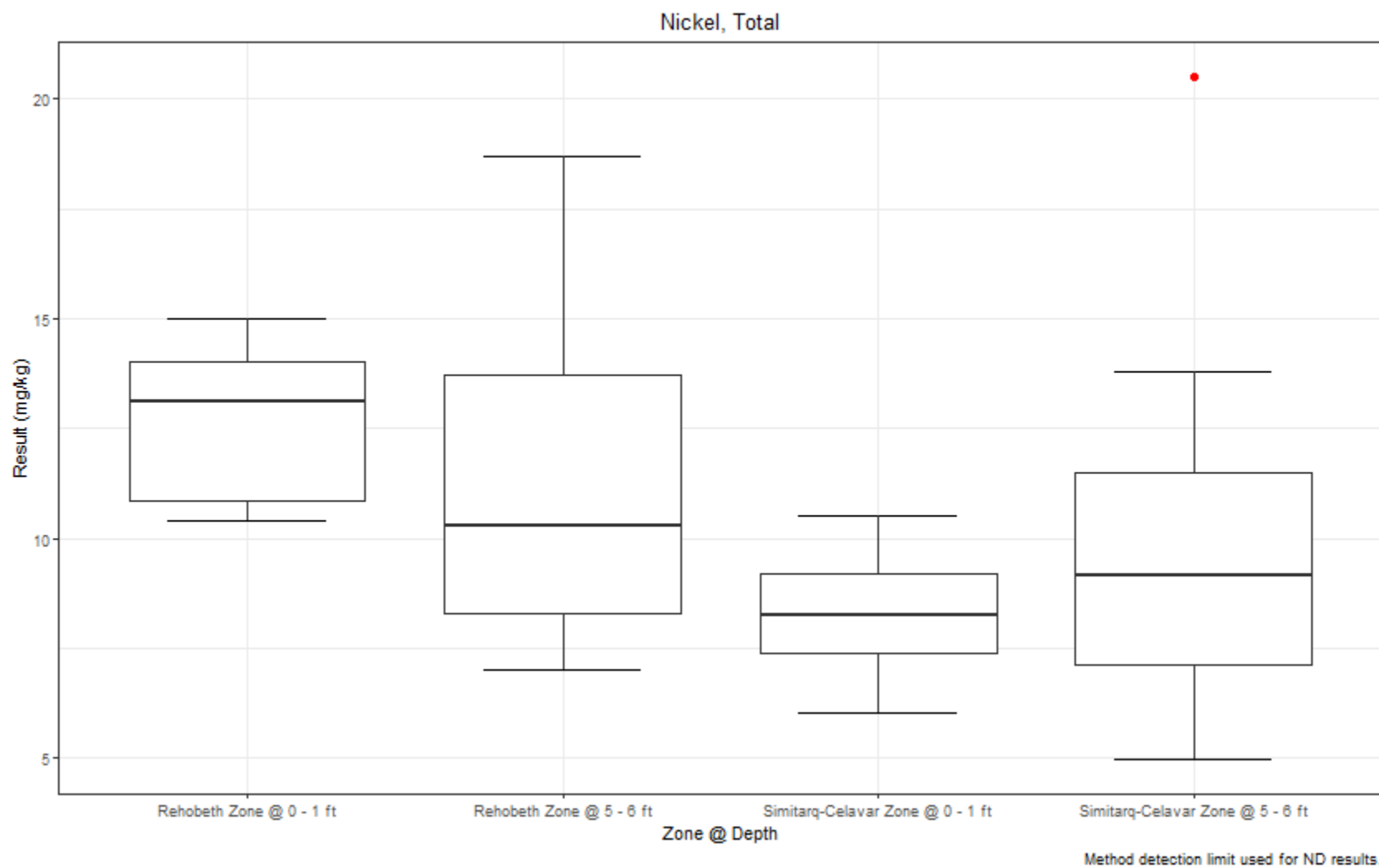
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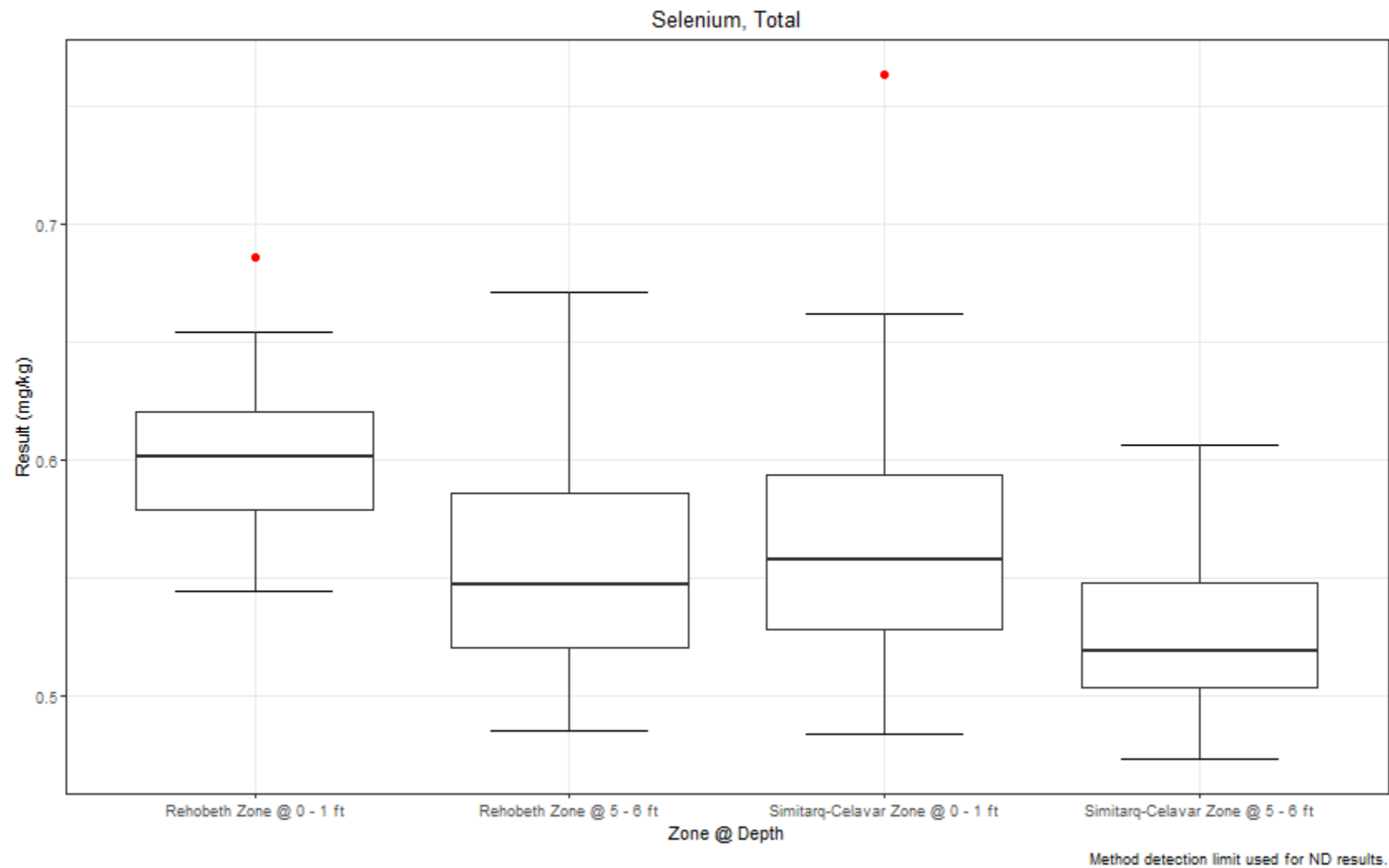
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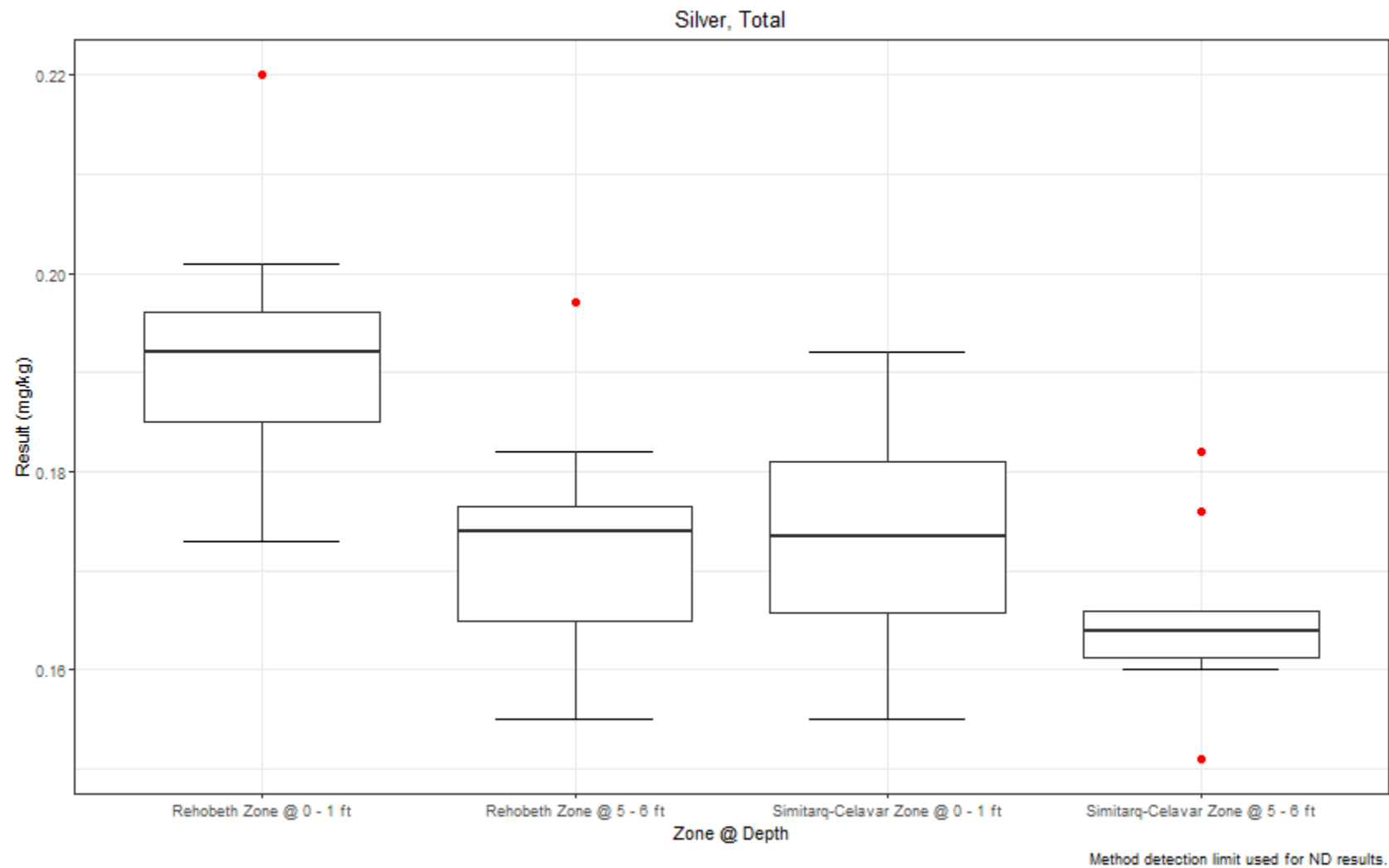
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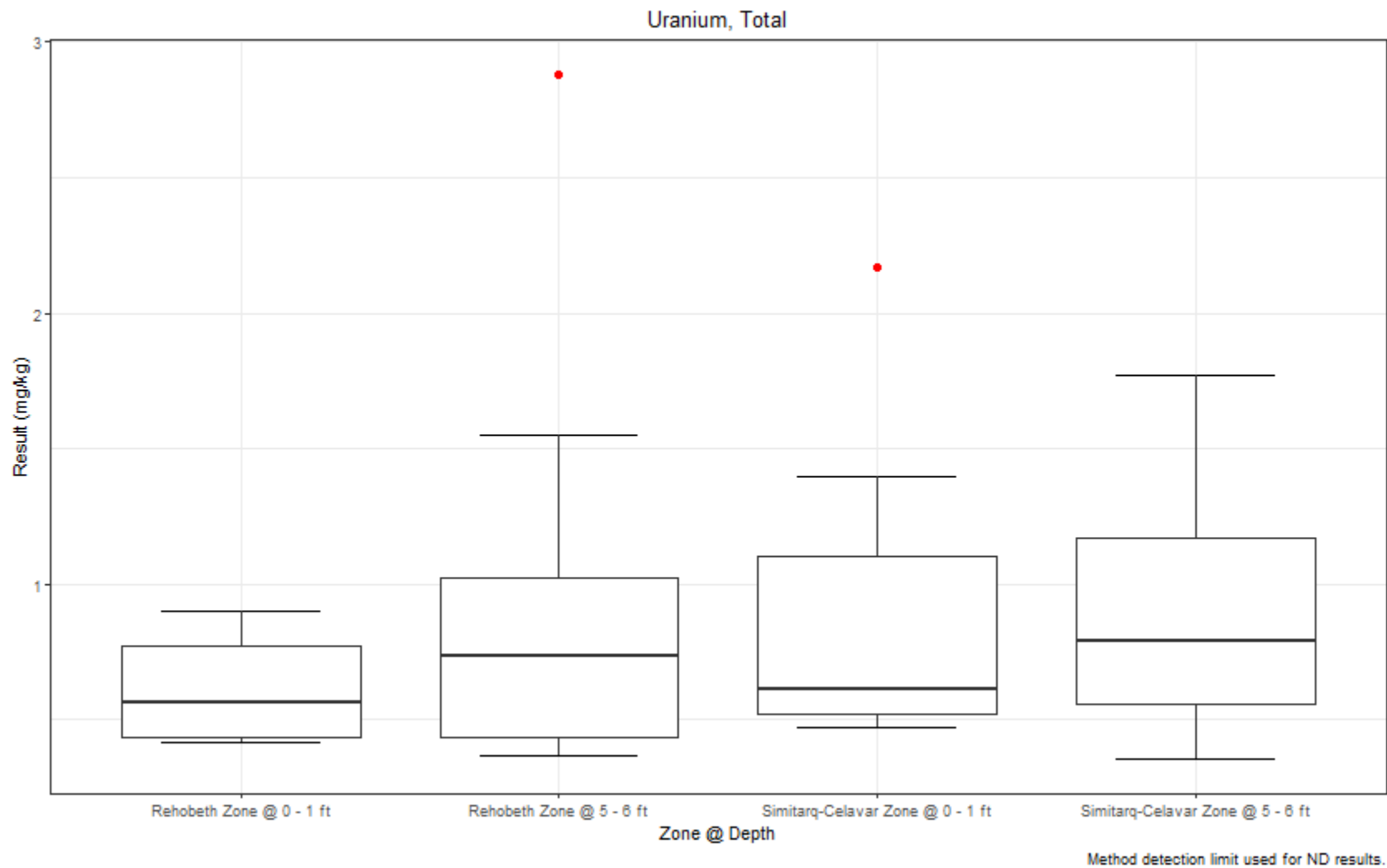
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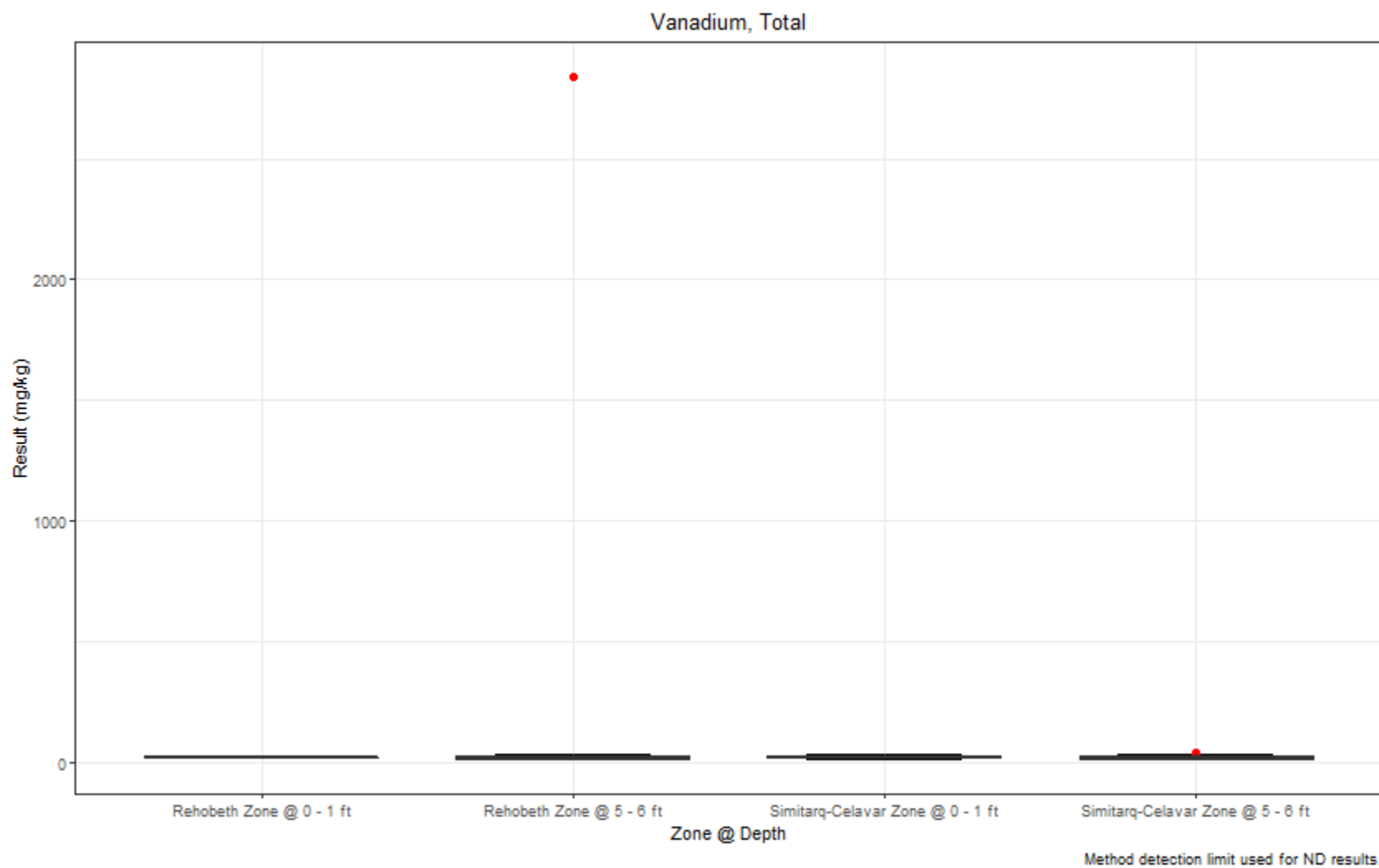
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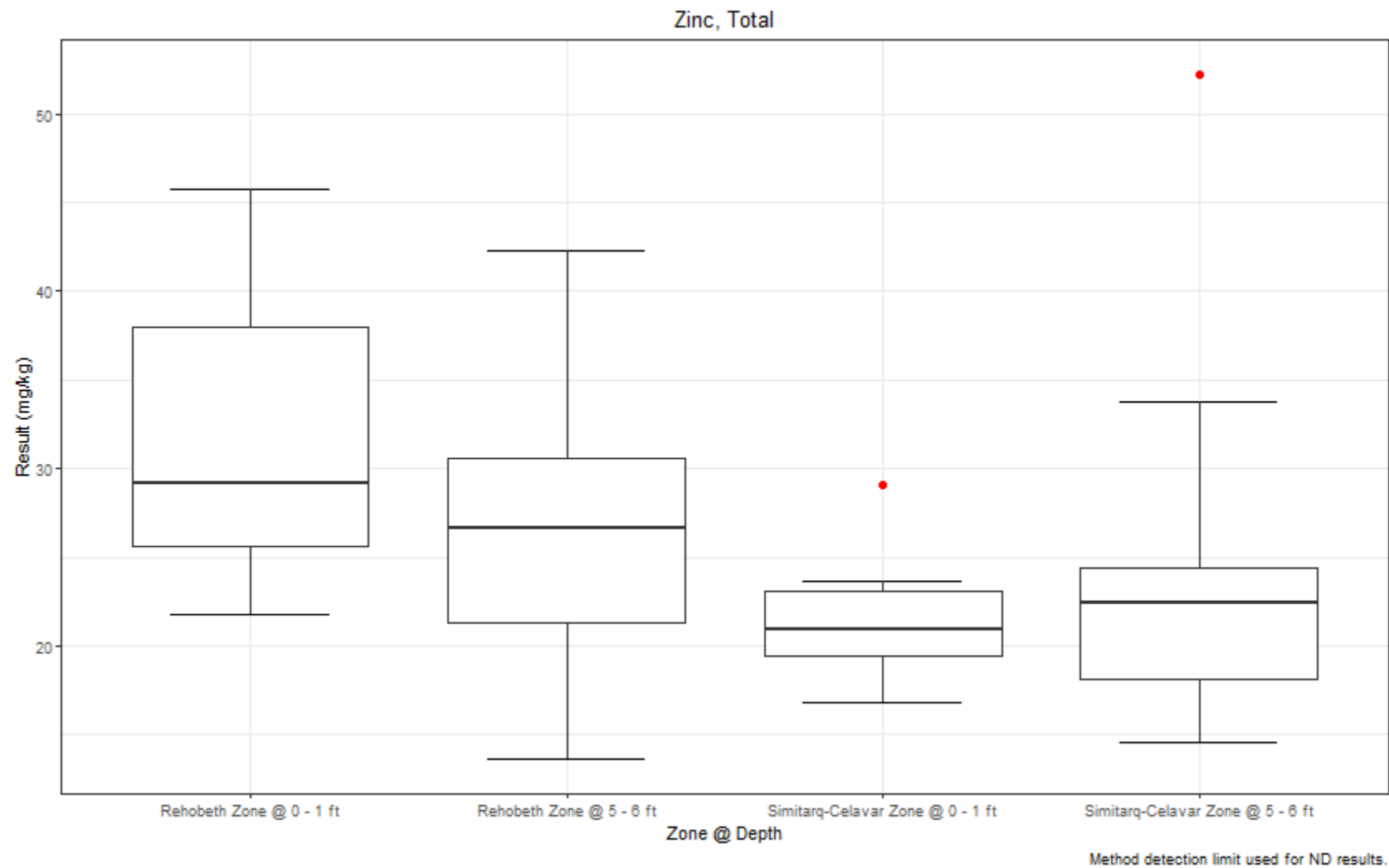
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WESTERN REFINING SOUTHWEST LLC, MARATHON GALLUP REFINERY, GALLUP, NEW MEXICO



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1625 N. French Dr., Hobbs, NM 88240
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 167150

CONDITIONS

Operator: Western Refining Southwest LLC 539 South Main Street Findlay, OH 45840	OGRID: 267595
	Action Number: 167150
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
scwells	Accepted for Record Retention Purposes-Only	12/15/2022