District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2004957805
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Spur Energy Partners LLC	OGRID 328947
Contact Name Braidy Moulder	Contact Telephone (713) 264-2517
Contact email bmoulder@spurepllc.com	Incident # *(assigned by OCD)*
Contact mailing address 919 Milam Street Suite 2475 Houston Texas 77002	

Location of Release Source

Latitude 32.826519 Longitude -103.8080597
(NAD 83 in decimal degrees to 5 decimal places)

Site Name BC Federal 45	Site Type: Drilling Pad
Date Release Discovered February 16, 2020	API# *(if applicable)* *30-025-39419*

Unit Letter	Section	Township	Range	County
C	19	17 South	32 East	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 17	Volume Recovered (bbls) 15
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release: Stuffing box leaked, All fluid remained on location		

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004957805
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Joseph Guesnier Title: Staff Scientist

Signature: Date: 2-18-20

email: jrguesnier@terracon.com Telephone: (806) 544-9276

OCD Only

Received by: Ramona Marcus Date: 02/18/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004957805
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>105 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004957805
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Katherine Purvis Title: EHS Coordinator

Signature: Katherine Purvis Date: 09/27/23

email: katherine.purvis@spurenergy.com Telephone: 575-441-8619

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2004957805
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

☒ Detailed description of proposed remediation technique
☒ Scaled sitemap with GPS coordinates showing delineation points
☒ Estimated volume of material to be remediated
☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _Katherine Purvis Title: ___EHS Coordinator_

Signature: Katherine Purvis Date: 09/27/2023

email: katherine.puris@spurenergy.com Telephone: ____575-441-8619__

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Incident ID	NRM2004957805
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: _Katherine Purvis_____ Title: __EHS Coordinator___

Signature: Katherine Purvis Date: 09/27/2023

email: katherine.puris@spurenergy.com Telephone: ___575-441-8619_____

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Scott Rodgers Date: 02/29/2024

Printed Name: Scott Rodgers Title: Environmental Specialist Adv.

September 12, 2023

Spur Energy Partners LLC
920 Memorial City Way, Suite 1000
Houston, Texas 77024

Attn: New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Amended Closure Report
BC Federal #45 Release
Unit C, Section 19, T17S, R32E
Lea County, New Mexico
NMOCD Incident No. NRM2004957805

To Whom It May Concern:

On February 16, 2020, Terracon was requested to oversee the remediation of a reportable release at the BC Federal #45 site. Terracon personnel were informed that a release of crude oil of a reportable quantity had taken place at the site. Surface ownership is held by the Bureau of Land Management (BLM). The release was 17 barrels (bbls) of Crude Oil. The New Mexico Oil Conservation District (NMOCD) was notified on February 16, 2020.

Action Items

Completed Actions

1) All aspects of the closure were approved on July 28, 2021, with the exception being the confirmation of the depth of groundwater at the site.
2) An exploratory boring was installed at the site on April 13, 2022, to determine the depth of groundwater to a depth of 105 ft bgs, and no groundwater was discovered.
3) The amended Closure Report was denied on February 28, 2023, citing the lack of horizontal delineation, lack of explanation of chemical treatment, and a lack of sufficient confirmation samples.
4) This report contains the additional delineation samples collected, an explanation of the treatment method, and the supplemental sampling result findings.

Anticipated Actions

1) NMOCD's confirmation of closure at the site.

Remedial Activities

On July 13, 2023, Terracon mobilized to the site to collect the additional delineation samples as requested by the NMOCD. Terracon personnel collected 10 samples from five locations surrounding the perimeter and in the center of the remediated area. The discreet grab samples collected outside of the inferred release area were collected from the surface and at 2 feet below grade surface (bgs). The composite confirmation samples collected from the center of the inferred release area were collected from 0-2 ft bgs.

On August 9, 2023, Terracon mobilized to the site to collect the additional confirmation samples as requested by the NMOCD. Terracon personnel collected five samples from five locations as evenly distributed throughout the center of the remediated area. The composite confirmation samples collected from the floor of the inferred release area were collected between 1 ft bgs and 1.5 ft bgs.

Terracon received the laboratory analytical results for the samples on August 18, 2023. The five analyzed soil samples did not exhibit chloride concentrations above the NMOCD RAL of 600 milligrams per kilogram (mg/kg).

Additionally, BTEX and TPH concentrations were not detected above the laboratory standard detection limits (SDLs) in the analyzed delineation samples.

See Appendix A for the data summary table.

Explanation of Treatment Activities

On March 5, 2020, Terracon personnel amended the impacted soils with crushed Gypsum on a ratio of 0.5 tons to 1 ton of impacted material which was hydrated with 500 gallons of water to assist in the reduction of mobile dispersed chloride. The calcium in Gypsum displaces hydrogen bonds and when the primary goal of remediation is to reduce the amount of soil dispersion caused by the sodium ion, this is accomplished by adding calcium ions. This remediation approach resulted in a reduction in average chloride concentrations from an average of 1,986.9 mg/kg to an average of 1,407 mg/kg post-treatment compared to the NMOCD on-pad target of 20,000 mg/kg.

Conclusion

In accordance with NMAC 19.15.29.12, further remediation of the site is not warranted and material proximate to and within the inferred release area is below the NMOCD RALs. Terracon recommends no further action be taken regarding incident number nRM2004957805, for the BC Federal #45 Release.

Should you have any questions, please contact the undersigned at (806) 300 0140.

Sincerely,
Terracon

Prepared by:

Joseph Guesnier
Office Manager – Carlsbad

Reviewed by:

Erin Loyd, P.G. (TX)
Senior Principal
Office Manager – Lubbock

Attachments

Appendix A – Tables and Exhibits

Exhibit 1 – Data Table
Exhibit 2 – Delineation Sample Map
Exhibit 3 – Soil Boring / Monitoring Well Log
Exhibit 4 – Analytical Report and Chain of Custody

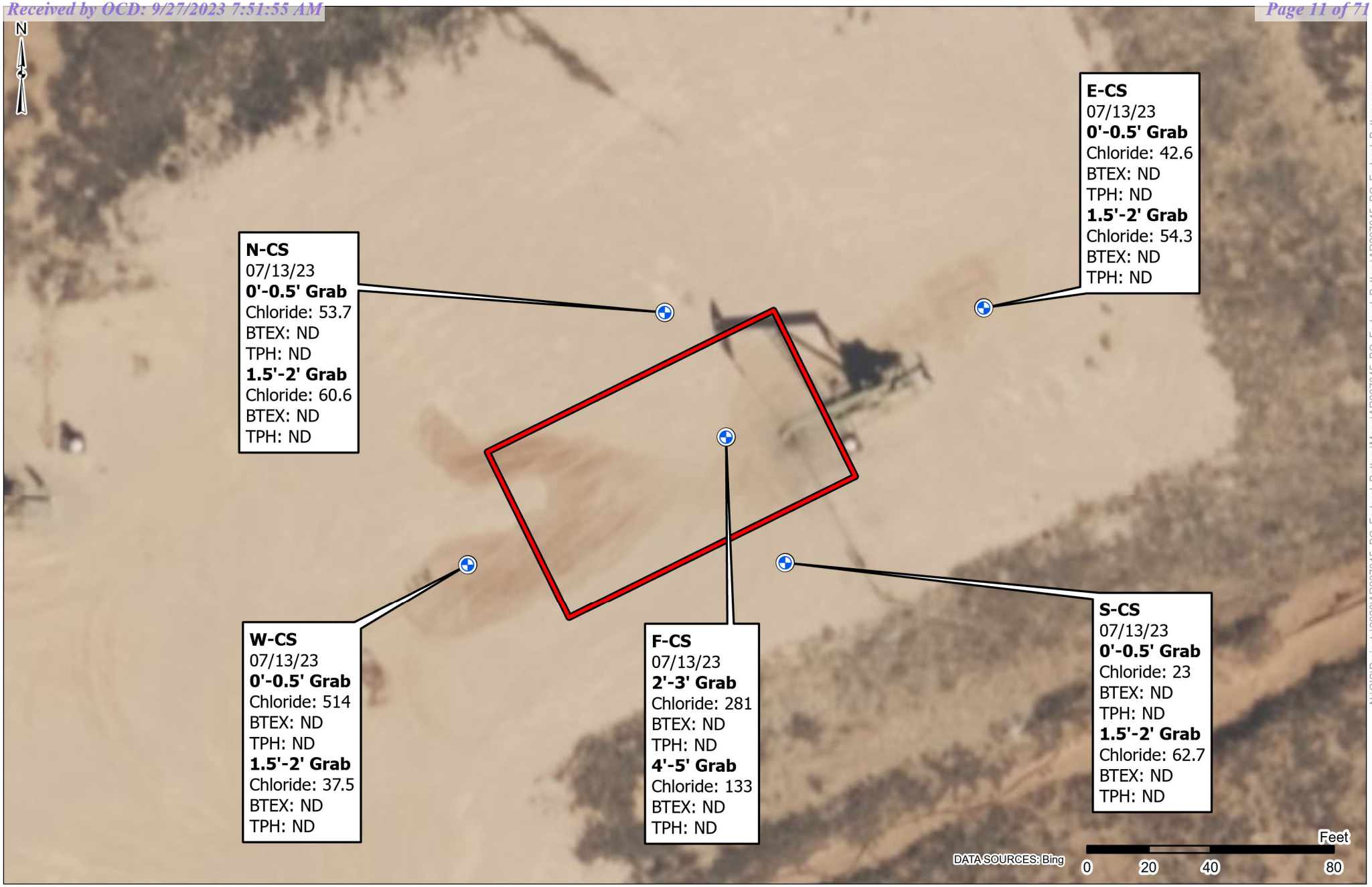
APPENDIX A – EXHIBITS

Exhibit 1 - Data Table
SOIL SAMPLE ANALYTICAL RESULTS - BTEX[1], Chloride[2], and TPH[3]
BC Federal #45 Relese
Terracon Project No. AR207045

Sample I.D.	Sample Depth (ft. bgs)	Sample Type	Sample Date	BTEX (mg/kg)	Chloride (mg/kg)	TPH (8015M) (mg/kg)			
						GRO	DRO	MRO	TOTAL
Confirmation Samples (ON Pad)									
E-CS	0 - 0.5'	Grab	07/13/23	Benzene - ND Total BTEX - ND	42.6	ND	ND	ND	ND
	1.5 - 2'	Grab	07/13/23	Benzene - ND Total BTEX - ND	54.3	ND	ND	ND	ND
F-CS	2 - 3'	Composite	07/13/23	Benzene - ND Total BTEX - ND	281	ND	ND	ND	ND
	4 - 5'	Composite	07/13/23	Benzene - ND Total BTEX - ND	133	ND	ND	ND	ND
N-CS	0 - 0.5'	Grab	07/13/23	Benzene - ND Total BTEX - ND	53.7	ND	ND	ND	ND
	1.5 - 2'	Grab	07/13/23	Benzene - ND Total BTEX - ND	60.6	ND	ND	ND	ND
S-CS	0 - 0.5'	Grab	07/13/23	Benzene - ND Total BTEX - ND	23	ND	ND	ND	ND
	1.5 - 2'	Grab	07/13/23	Benzene - ND Total BTEX - ND	62.7	ND	ND	ND	ND
W-CS	0 - 0.5'	Grab	07/13/23	Benzene - ND Total BTEX - ND	514	ND	ND	ND	ND
	1.5 - 2'	Grab	07/13/23	Benzene - ND Total BTEX - ND	37.5	ND	ND	ND	ND
Additional Confirmation Samples (ON Pad)									
HA-5	1 - 1.5'	Composite	08/09/23	Benzene - ND Total BTEX - ND	69.7	ND	ND	ND	ND
HA-6	1 - 1.5'	Composite	08/09/23	Benzene - ND Total BTEX - ND	60.9	ND	ND	ND	ND
HA-7	1 - 1.5'	Composite	08/09/23	Benzene - ND Total BTEX - ND	84.4	ND	ND	ND	ND
HA-8	1 - 1.5'	Composite	08/09/23	Benzene - ND Total BTEX - ND	57.8	ND	ND	ND	ND
HA-9	1 - 1.5'	Composite	08/09/23	Benzene - ND Total BTEX - ND	193	ND	ND	ND	ND
NMOCD Reclamation Standards[4] **(Applicable for Soils from the Surface to 4 ft. Below Grade Surface)**				**Benzene - 10** **Toluene - N/A** **Ethylbenzene - N/A** **Total Xylenes - N/A** **Total BTEX - 50**	**20,000**	**1,000**		**N/A**	**2,500**
NMOCD Remediation and Delineation Standards[5] **(Applicable for Soils at Depths Greater than 4 ft. Below Grade Surface)**				**Benzene - 10** **Toluene - N/A** **Ethylbenzene - N/A** **Total Xylenes - N/A** **Total BTEX - 50**	**20,000**	**1,000**		**N/A**	**2,500**

1. BTEX = Benzene, toluene, ethylbenzene, total xylenes analyzed by EPA Method 8021B
2. Chloride = Chloride analyzed by EPA Method 300.
3. TPH = Total petroleum hydrocarbons analyzed by EPA Method 8015M (GRO/DRO/MRO)
4. New Mexico Administration Code (NMAC) Restoration, Reclamation, and Re-vegetation (19.15.29.13) New Mexico Administration Code (NMAC) – D (Reclamation of areas no longer in use) for soils extending to 4 ft. bgs
5. New Mexico Oil Conservation Division (NMOCD) Remediation and Delineation Standards are proposed in 19.15.29.12 NMAC - N, 8/14/2018

< = Constituent not detected above the indicated laboratory SDL
NA = Not Analyzed
N/A = Not Applicable
Bold and Highlight denotes concentrations that exceed the New Mexico Oil Conservation Division (NMOCD) Reclamation and/or Remediation and Delineation Standards.



Release Area

Delineation Sample

Project No.:	AR207045
Date:	Sep 12 2023
Drawn By:	JWL
Reviewed By:	JRG

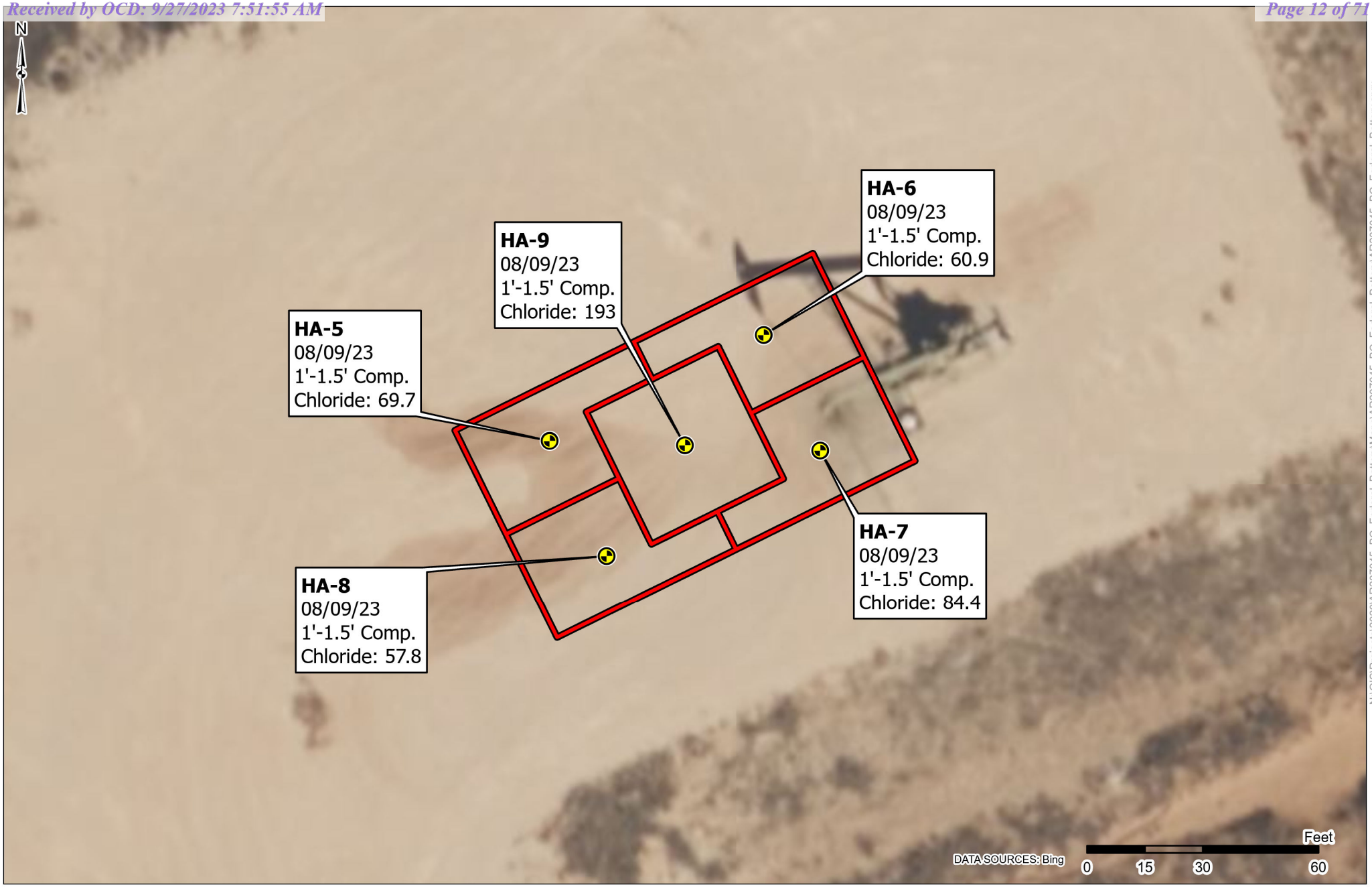
terracon
4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

Delineation Sample Map

BC Federal Battery
32.8265623° -103.8080854°
Lea County, New Mexico

Exhibit

2



Release Area

Hand Auger Sample

Project No.:	AR207045
Date:	Sep 12 2023
Drawn By:	JWL
Reviewed By:	JRG

Terracon
4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

Confirmation Sample Map

BC Federal Battery
32.8265623° -103.8080854°
Lea County, New Mexico

Exhibit

3

N:\GIS\Projects\2020\AR207045_BC_Federal_Battery\Maps\AR207045_BC_Federal_Battery\AR207045_BC_Federal_Battery.aprx

SOIL BORING / MONITORING WELL LOG

PROJECT:	BC Federal #45	**DRILLING COMPANY:**	HCI
PROJECT NUMBER:	AR207045	**DRILLER:**	Kenny Cooper
CLIENT:	Spur Energy Partners	**DRILLING METHOD:**	Air Rotary
BORING/WELL NUMBER:	B-1	**BORE HOLE DIAMETER:**	4"
TOTAL DEPTH:	105'	**SCREEN:**	0.1"
CASING:	PVC	**CASING:**	2"
PERSONNEL:	J. Guesnier	**DATE DRILLED:**	4/13/2022

DEPTH (FT)	SOIL SYMBOL	WELL CONSTRUCTION	PID	SAMPLES	SAMPLE INTERVAL	DESCRIPTION INTERVAL	DESCRIPTION OF STRATUM	DEPTH (FT)
0								0
15			0			X	pinkish brown, clayey sand, mois, no odor	15
30			0			X	pale pink, clayey sand, moist, no odor	30
45			0			X	orangish brown, clayey sand, moist, no odor	45
60			0			X	orangish brown, sand w/chert debris, moist, no odor	60
75			0			X	pale grayish brown, clayey sand w/gravel, moist, no odor	75
90			0			X	pale orange, clayey sand, moist, no odor	90
105			0			X	pale red, clayey sand, moist, no odor	105
							Boring Gauged - 4/17/2022 (Dry)	

REMARKS:

THIS LOG SHOULD NOT BE USED SEPARATELY FROM THE ORIGINAL REPORT.

Terracon

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Joseph Guesnier
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424

Generated 7/19/2023 10:29:15 AM

JOB DESCRIPTION

BC Federal Battery
SDG NUMBER A4207045

JOB NUMBER

890-4944-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

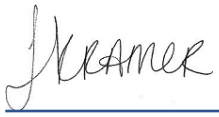
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
7/19/2023 10:29:15 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Eurofins Carlsbad

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD,and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Coliform MCLs
· Based on the EPA primary drinking water standard MCL for total coliforms, a water supply is considered bacteriologically "SAFE" if no coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 cfu/100mL" or "NEG" for the coliform test. If you report indicates a positive result "POS" or a value greater than or equal to one, then your supply is "UNSAFE FOR DRINKING" contact your local health department.

Warranties, Terms, and Conditions
· Analyses for Field Parameters are performed by Eurofins Philadelphia field staff. Locations and certifications are identified on the Chain of Custody as follows:

ERF = field staff performs tests under NJ State certification #02015
VL = field staff performs tests under NJ State certification #06005
WG = field staff performs tests under NJ State certification #PA001
H = field staff performs tests under NJ NELAP certification #PA093, PA NELAP certification # 46-05499

· Test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.

· The report shall not be reproduced, except in full, without the written consent of the laboratory

· All samples are collected as "grab" samples unless otherwise identified.

· Reported results related only to the samples as tested. Eurofins Philadelphia is not responsible for sample integrity unless sampling has been performed by a member of our staff.

· Eurofins Philadelphia is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance.

· Eurofins' online data portal "TotalAccess" will provide you with real-time access to collection dates and testing results. Please contact Client Services for further information.

· The following personnel or their deputies have approved the results of the tests performed by Eurofins Philadelphia : Nicki Smith (Environmental Chemistry) and Jacqueline Gartner (Water Microbiology).

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Laboratory Job ID: 890-4944-1
SDG: A4207045

Table of Contents

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
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)
TNTC	Too Numerous To Count

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Job ID: 890-4944-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4944-1

Receipt
The samples were received on 7/14/2023 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: F-CS 2-3' (890-4944-1), F-CS 4-5' (890-4944-2), N-CS 0-0.5' (890-4944-3), N-CS 1.5-2' (890-4944-4), W-CS 0-0.5' (890-4944-5), W-CS 1.5-2' (890-4944-6), S-CS 0-0.5' (890-4944-7), S-CS 1.5-2' (890-4944-8), E-CS 0-0.5' (890-4944-9) and E-CS 1.5-2' (890-4944-10).

Sample container(s) was provided by the client for the following samples: F-CS 2-3' (890-4944-1), F-CS 4-5' (890-4944-2), N-CS 0-0.5' (890-4944-3), N-CS 1.5-2' (890-4944-4), W-CS 0-0.5' (890-4944-5), W-CS 1.5-2' (890-4944-6), S-CS 0-0.5' (890-4944-7), S-CS 1.5-2' (890-4944-8), E-CS 0-0.5' (890-4944-9) and E-CS 1.5-2' (890-4944-10)
890-4944 #2 Jar has a little bit of water in the sample- sent to Midland for testing

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: S-CS 1.5-2' (890-4944-8) and E-CS 0-0.5' (890-4944-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: W-CS 0-0.5' (890-4944-5), S-CS 0-0.5' (890-4944-7), (890-4944-A-1-F MS) and (890-4944-A-1-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-57890/20). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-57876 and analytical batch 880-57890 was outside control limits. Sample non-homogeneity is suspected.

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

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

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: F-CS 2-3'

Lab Sample ID: 890-4944-1
Matrix: Solid
Date Collected: 07/13/23 15:40
Date Received: 07/14/23 09:05
Sample Depth: 2 - 3

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 12:13	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 12:13	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 12:13	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/17/23 08:40	07/17/23 12:13	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 12:13	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/17/23 08:40	07/17/23 12:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*07/17/23 08:40*	*07/17/23 12:13*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*07/17/23 08:40*	*07/17/23 12:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/17/23 16:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			07/19/23 11:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U F2	50.1		mg/Kg		07/17/23 15:02	07/18/23 12:47	1
Diesel Range Organics (Over C10-C28)	<50.1	U F2	50.1		mg/Kg		07/17/23 15:02	07/18/23 12:47	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		07/17/23 15:02	07/18/23 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*07/17/23 15:02*	*07/18/23 12:47*	*1*
o-Terphenyl	*101*		*70 - 130*	*07/17/23 15:02*	*07/18/23 12:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**281**		4.99		mg/Kg			07/17/23 12:02	1

Client Sample ID: F-CS 4-5'

Lab Sample ID: 890-4944-2
Matrix: Solid
Date Collected: 07/13/23 15:45
Date Received: 07/14/23 09:05
Sample Depth: 4 - 5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 12:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 12:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 12:33	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/17/23 08:40	07/17/23 12:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 12:33	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/17/23 08:40	07/17/23 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*07/17/23 08:40*	*07/17/23 12:33*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: F-CS 4-5'

Date Collected: 07/13/23 15:45
Date Received: 07/14/23 09:05
Sample Depth: 4 - 5

Lab Sample ID: 890-4944-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*07/17/23 08:40*	*07/17/23 12:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			07/17/23 16:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/19/23 11:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 13:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 13:54	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*07/17/23 15:02*	*07/18/23 13:54*	*1*
o-Terphenyl	*116*		*70 - 130*	*07/17/23 15:02*	*07/18/23 13:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**133**		4.95		mg/Kg			07/17/23 12:18	1

Client Sample ID: N-CS 0-0.5'

Date Collected: 07/13/23 15:50
Date Received: 07/14/23 09:05
Sample Depth: 0 - 0.5

Lab Sample ID: 890-4944-3

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/17/23 08:40	07/17/23 12:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/17/23 08:40	07/17/23 12:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/17/23 08:40	07/17/23 12:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/17/23 08:40	07/17/23 12:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/17/23 08:40	07/17/23 12:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/17/23 08:40	07/17/23 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*07/17/23 08:40*	*07/17/23 12:54*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*07/17/23 08:40*	*07/17/23 12:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/17/23 16:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			07/19/23 11:00	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: N-CS 0-0.5'

Lab Sample ID: 890-4944-3
Matrix: Solid
Date Collected: 07/13/23 15:50
Date Received: 07/14/23 09:05
Sample Depth: 0 - 0.5

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		07/17/23 15:02	07/18/23 14:16	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		07/17/23 15:02	07/18/23 14:16	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		07/17/23 15:02	07/18/23 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*07/17/23 15:02*	*07/18/23 14:16*	*1*
o-Terphenyl	*119*		*70 - 130*	*07/17/23 15:02*	*07/18/23 14:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**53.7**		5.01		mg/Kg			07/17/23 12:23	1

Client Sample ID: N-CS 1.5-2'

Lab Sample ID: 890-4944-4
Matrix: Solid
Date Collected: 07/13/23 15:55
Date Received: 07/14/23 09:05
Sample Depth: 1.5 - 2

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 13:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 13:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 13:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/17/23 08:40	07/17/23 13:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 13:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/17/23 08:40	07/17/23 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*07/17/23 08:40*	*07/17/23 13:14*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*07/17/23 08:40*	*07/17/23 13:14*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/17/23 16:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			07/19/23 11:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		07/17/23 15:02	07/18/23 14:38	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		07/17/23 15:02	07/18/23 14:38	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		07/17/23 15:02	07/18/23 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*07/17/23 15:02*	*07/18/23 14:38*	*1*
o-Terphenyl	*129*		*70 - 130*	*07/17/23 15:02*	*07/18/23 14:38*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: N-CS 1.5-2'

Lab Sample ID: 890-4944-4
Matrix: Solid
Date Collected: 07/13/23 15:55
Date Received: 07/14/23 09:05
Sample Depth: 1.5 - 2

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	60.6		4.97		mg/Kg			07/17/23 12:38	1

Client Sample ID: W-CS 0-0.5'

Lab Sample ID: 890-4944-5
Matrix: Solid
Date Collected: 07/13/23 16:00
Date Received: 07/14/23 09:05
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/17/23 08:40	07/17/23 13:35	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/17/23 08:40	07/17/23 13:35	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/17/23 08:40	07/17/23 13:35	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		07/17/23 08:40	07/17/23 13:35	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/17/23 08:40	07/17/23 13:35	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/17/23 08:40	07/17/23 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*07/17/23 08:40*	*07/17/23 13:35*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*07/17/23 08:40*	*07/17/23 13:35*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			07/17/23 16:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/19/23 11:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 15:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 15:00	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*247*	*S1+*	*70 - 130*	*07/17/23 15:02*	*07/18/23 15:00*	*1*
o-Terphenyl	*257*	*S1+*	*70 - 130*	*07/17/23 15:02*	*07/18/23 15:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	514		4.95		mg/Kg			07/17/23 12:43	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: W-CS 1.5-2'

Lab Sample ID: 890-4944-6
Matrix: Solid
Date Collected: 07/13/23 16:02
Date Received: 07/14/23 09:05
Sample Depth: 1.5 - 2

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 13:55	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 13:55	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 13:55	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/17/23 08:40	07/17/23 13:55	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 13:55	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/17/23 08:40	07/17/23 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*07/17/23 08:40*	*07/17/23 13:55*	*1*
1,4-Difluorobenzene (Surr)	*73*		*70 - 130*	*07/17/23 08:40*	*07/17/23 13:55*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/17/23 16:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/19/23 11:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 15:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 15:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*07/17/23 15:02*	*07/18/23 15:22*	*1*
o-Terphenyl	*118*		*70 - 130*	*07/17/23 15:02*	*07/18/23 15:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.5**		4.95		mg/Kg			07/17/23 12:48	1

Client Sample ID: S-CS 0-0.5'

Lab Sample ID: 890-4944-7
Matrix: Solid
Date Collected: 07/13/23 16:07
Date Received: 07/14/23 09:05
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/17/23 08:40	07/17/23 14:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/17/23 08:40	07/17/23 14:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/17/23 08:40	07/17/23 14:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/17/23 08:40	07/17/23 14:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/17/23 08:40	07/17/23 14:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/17/23 08:40	07/17/23 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*07/17/23 08:40*	*07/17/23 14:16*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: S-CS 0-0.5'

Lab Sample ID: 890-4944-7
Matrix: Solid
Date Collected: 07/13/23 16:07
Date Received: 07/14/23 09:05
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*71*		*70 - 130*	*07/17/23 08:40*	*07/17/23 14:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/17/23 16:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			07/19/23 11:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		07/17/23 15:02	07/18/23 15:44	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		07/17/23 15:02	07/18/23 15:44	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		07/17/23 15:02	07/18/23 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*207*	*S1+*	*70 - 130*	*07/17/23 15:02*	*07/18/23 15:44*	*1*
o-Terphenyl	*211*	*S1+*	*70 - 130*	*07/17/23 15:02*	*07/18/23 15:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.0**		5.01		mg/Kg			07/17/23 12:53	1

Client Sample ID: S-CS 1.5-2'

Lab Sample ID: 890-4944-8
Matrix: Solid
Date Collected: 07/13/23 16:10
Date Received: 07/14/23 09:05
Sample Depth: 1.5 - 2

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 14:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 14:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 14:36	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/17/23 08:40	07/17/23 14:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 14:36	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/17/23 08:40	07/17/23 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*07/17/23 08:40*	*07/17/23 14:36*	*1*
1,4-Difluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*07/17/23 08:40*	*07/17/23 14:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/17/23 16:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			07/19/23 11:00	1

Eurofins Carlsbad

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: S-CS 1.5-2'

Lab Sample ID: 890-4944-8
Matrix: Solid
Date Collected: 07/13/23 16:10
Date Received: 07/14/23 09:05
Sample Depth: 1.5 - 2

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		07/17/23 15:02	07/18/23 16:06	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		07/17/23 15:02	07/18/23 16:06	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		07/17/23 15:02	07/18/23 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*07/17/23 15:02*	*07/18/23 16:06*	*1*
o-Terphenyl	*109*		*70 - 130*	*07/17/23 15:02*	*07/18/23 16:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**62.7**		5.05		mg/Kg			07/17/23 12:59	1

Client Sample ID: E-CS 0-0.5'

Lab Sample ID: 890-4944-9
Matrix: Solid
Date Collected: 07/13/23 16:16
Date Received: 07/14/23 09:05
Sample Depth: 0 - 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/17/23 08:40	07/17/23 14:57	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/17/23 08:40	07/17/23 14:57	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/17/23 08:40	07/17/23 14:57	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		07/17/23 08:40	07/17/23 14:57	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/17/23 08:40	07/17/23 14:57	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		07/17/23 08:40	07/17/23 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*07/17/23 08:40*	*07/17/23 14:57*	*1*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*07/17/23 08:40*	*07/17/23 14:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			07/17/23 16:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			07/19/23 11:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		07/17/23 15:02	07/18/23 16:28	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		07/17/23 15:02	07/18/23 16:28	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/17/23 15:02	07/18/23 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*07/17/23 15:02*	*07/18/23 16:28*	*1*
o-Terphenyl	*113*		*70 - 130*	*07/17/23 15:02*	*07/18/23 16:28*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: E-CS 0-0.5'

Lab Sample ID: 890-4944-9
Matrix: Solid
Date Collected: 07/13/23 16:16
Date Received: 07/14/23 09:05
Sample Depth: 0 - 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.6		4.98		mg/Kg			07/17/23 13:04	1

Client Sample ID: E-CS 1.5-2'

Lab Sample ID: 890-4944-10
Matrix: Solid
Date Collected: 07/13/23 16:18
Date Received: 07/14/23 09:05
Sample Depth: 1.5 - 2

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 17:01	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 17:01	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 17:01	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/17/23 08:40	07/17/23 17:01	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/17/23 08:40	07/17/23 17:01	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/17/23 08:40	07/17/23 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*07/17/23 08:40*	*07/17/23 17:01*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*07/17/23 08:40*	*07/17/23 17:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/18/23 10:31	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			07/19/23 11:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/17/23 15:02	07/18/23 16:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/17/23 15:02	07/18/23 16:50	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/17/23 15:02	07/18/23 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*07/17/23 15:02*	*07/18/23 16:50*	*1*
o-Terphenyl	*114*		*70 - 130*	*07/17/23 15:02*	*07/18/23 16:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.3		4.96		mg/Kg			07/17/23 13:09	1

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4944-1	F-CS 2-3'	92	76
890-4944-2	F-CS 4-5'	90	73
890-4944-3	N-CS 0-0.5'	92	75
890-4944-4	N-CS 1.5-2'	90	72
890-4944-5	W-CS 0-0.5'	90	70
890-4944-6	W-CS 1.5-2'	90	73
890-4944-7	S-CS 0-0.5'	89	71
890-4944-8	S-CS 1.5-2'	88	67 S1-
890-4944-9	E-CS 0-0.5'	97	68 S1-
890-4944-10	E-CS 1.5-2'	93	78
LCS 880-57823/1-A	Lab Control Sample	119	96
LCSD 880-57823/2-A	Lab Control Sample Dup	116	100
MB 880-57823/5-A	Method Blank	71	90

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4944-1	F-CS 2-3'	96	101
890-4944-1 MS	F-CS 2-3'	195 S1+	191 S1+
890-4944-1 MSD	F-CS 2-3'	241 S1+	244 S1+
890-4944-2	F-CS 4-5'	109	116
890-4944-3	N-CS 0-0.5'	113	119
890-4944-4	N-CS 1.5-2'	124	129
890-4944-5	W-CS 0-0.5'	247 S1+	257 S1+
890-4944-6	W-CS 1.5-2'	110	118
890-4944-7	S-CS 0-0.5'	207 S1+	211 S1+
890-4944-8	S-CS 1.5-2'	109	109
890-4944-9	E-CS 0-0.5'	110	113
890-4944-10	E-CS 1.5-2'	111	114
LCS 880-57876/2-A	Lab Control Sample	112	122
LCSD 880-57876/3-A	Lab Control Sample Dup	110	123
MB 880-57876/1-A	Method Blank	122	130

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-57823/5-A
Matrix: Solid
Analysis Batch: 57772

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57823

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 11:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 11:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/17/23 08:40	07/17/23 11:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 11:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/17/23 08:40	07/17/23 11:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*71*		*70 - 130*	*07/17/23 08:40*	*07/17/23 11:31*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*07/17/23 08:40*	*07/17/23 11:31*	*1*

Lab Sample ID: LCS 880-57823/1-A
Matrix: Solid
Analysis Batch: 57772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 57823

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1115		mg/Kg		111	70 - 130		
Toluene			0.100	0.1029		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.1209		mg/Kg		121	70 - 130		
m-Xylene & p-Xylene			0.200	0.2593		mg/Kg		130	70 - 130		
o-Xylene			0.100	0.1282		mg/Kg		128	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 880-57823/2-A
Matrix: Solid
Analysis Batch: 57772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 57823

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1053		mg/Kg		105	70 - 130	6	35
Toluene			0.100	0.09824		mg/Kg		98	70 - 130	5	35
Ethylbenzene			0.100	0.1145		mg/Kg		115	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2444		mg/Kg		122	70 - 130	6	35
o-Xylene			0.100	0.1205		mg/Kg		120	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-57876/1-A
Matrix: Solid
Analysis Batch: 57890

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57876

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 09:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 09:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/17/23 15:02	07/18/23 09:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*07/17/23 15:02*	*07/18/23 09:54*	*1*
o-Terphenyl	*130*		*70 - 130*	*07/17/23 15:02*	*07/18/23 09:54*	*1*

Lab Sample ID: LCS 880-57876/2-A
Matrix: Solid
Analysis Batch: 57890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 57876

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	985.7		mg/Kg		99	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1084		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*122*		*70 - 130*

Lab Sample ID: LCSD 880-57876/3-A
Matrix: Solid
Analysis Batch: 57890

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 57876

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	988.9		mg/Kg		99	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	1077		mg/Kg		108	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*110*		*70 - 130*
o-Terphenyl	*123*		*70 - 130*

Lab Sample ID: 890-4944-1 MS
Matrix: Solid
Analysis Batch: 57890

Client Sample ID: F-CS 2-3'
Prep Type: Total/NA
Prep Batch: 57876

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.1	U F2	996	908.1		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.1	U F2	996	929.8		mg/Kg		91	70 - 130		

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-4944-1 MS
Matrix: Solid
Analysis Batch: 57890

Client Sample ID: F-CS 2-3'
Prep Type: Total/NA
Prep Batch: 57876

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	195	S1+	70 - 130
o-Terphenyl	191	S1+	70 - 130

Lab Sample ID: 890-4944-1 MSD
Matrix: Solid
Analysis Batch: 57890

Client Sample ID: F-CS 2-3'
Prep Type: Total/NA
Prep Batch: 57876

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.1	U F2	996	1143	F2	mg/Kg		111	70 - 130	23	20
Diesel Range Organics (Over C10-C28)	<50.1	U F2	996	1166	F2	mg/Kg		115	70 - 130	23	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	241	S1+	70 - 130
o-Terphenyl	244	S1+	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57698/1-A
Matrix: Solid
Analysis Batch: 57824

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			07/17/23 10:35	1

Lab Sample ID: LCS 880-57698/2-A
Matrix: Solid
Analysis Batch: 57824

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	249.0		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-57698/3-A
Matrix: Solid
Analysis Batch: 57824

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	247.5		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-4944-1 MS
Matrix: Solid
Analysis Batch: 57824

Client Sample ID: F-CS 2-3'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	281		250	519.0		mg/Kg		95	90 - 110

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4944-1 MSD
Matrix: Solid
Analysis Batch: 57824

Client Sample ID: F-CS 2-3'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	281		250	519.5		mg/Kg		96	90 - 110	0	20

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

GC VOA

Analysis Batch: 57772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-1	F-CS 2-3'	Total/NA	Solid	8021B	57823
890-4944-2	F-CS 4-5'	Total/NA	Solid	8021B	57823
890-4944-3	N-CS 0-0.5'	Total/NA	Solid	8021B	57823
890-4944-4	N-CS 1.5-2'	Total/NA	Solid	8021B	57823
890-4944-5	W-CS 0-0.5'	Total/NA	Solid	8021B	57823
890-4944-6	W-CS 1.5-2'	Total/NA	Solid	8021B	57823
890-4944-7	S-CS 0-0.5'	Total/NA	Solid	8021B	57823
890-4944-8	S-CS 1.5-2'	Total/NA	Solid	8021B	57823
890-4944-9	E-CS 0-0.5'	Total/NA	Solid	8021B	57823
890-4944-10	E-CS 1.5-2'	Total/NA	Solid	8021B	57823
MB 880-57823/5-A	Method Blank	Total/NA	Solid	8021B	57823
LCS 880-57823/1-A	Lab Control Sample	Total/NA	Solid	8021B	57823
LCSD 880-57823/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57823

Prep Batch: 57823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-1	F-CS 2-3'	Total/NA	Solid	5035	
890-4944-2	F-CS 4-5'	Total/NA	Solid	5035	
890-4944-3	N-CS 0-0.5'	Total/NA	Solid	5035	
890-4944-4	N-CS 1.5-2'	Total/NA	Solid	5035	
890-4944-5	W-CS 0-0.5'	Total/NA	Solid	5035	
890-4944-6	W-CS 1.5-2'	Total/NA	Solid	5035	
890-4944-7	S-CS 0-0.5'	Total/NA	Solid	5035	
890-4944-8	S-CS 1.5-2'	Total/NA	Solid	5035	
890-4944-9	E-CS 0-0.5'	Total/NA	Solid	5035	
890-4944-10	E-CS 1.5-2'	Total/NA	Solid	5035	
MB 880-57823/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57823/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57823/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 57879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-1	F-CS 2-3'	Total/NA	Solid	Total BTEX	
890-4944-2	F-CS 4-5'	Total/NA	Solid	Total BTEX	
890-4944-3	N-CS 0-0.5'	Total/NA	Solid	Total BTEX	
890-4944-4	N-CS 1.5-2'	Total/NA	Solid	Total BTEX	
890-4944-5	W-CS 0-0.5'	Total/NA	Solid	Total BTEX	
890-4944-6	W-CS 1.5-2'	Total/NA	Solid	Total BTEX	
890-4944-7	S-CS 0-0.5'	Total/NA	Solid	Total BTEX	
890-4944-8	S-CS 1.5-2'	Total/NA	Solid	Total BTEX	
890-4944-9	E-CS 0-0.5'	Total/NA	Solid	Total BTEX	
890-4944-10	E-CS 1.5-2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 57876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-1	F-CS 2-3'	Total/NA	Solid	8015NM Prep	
890-4944-2	F-CS 4-5'	Total/NA	Solid	8015NM Prep	
890-4944-3	N-CS 0-0.5'	Total/NA	Solid	8015NM Prep	
890-4944-4	N-CS 1.5-2'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

GC Semi VOA (Continued)

Prep Batch: 57876 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-5	W-CS 0-0.5'	Total/NA	Solid	8015NM Prep	
890-4944-6	W-CS 1.5-2'	Total/NA	Solid	8015NM Prep	
890-4944-7	S-CS 0-0.5'	Total/NA	Solid	8015NM Prep	
890-4944-8	S-CS 1.5-2'	Total/NA	Solid	8015NM Prep	
890-4944-9	E-CS 0-0.5'	Total/NA	Solid	8015NM Prep	
890-4944-10	E-CS 1.5-2'	Total/NA	Solid	8015NM Prep	
MB 880-57876/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57876/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57876/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4944-1 MS	F-CS 2-3'	Total/NA	Solid	8015NM Prep	
890-4944-1 MSD	F-CS 2-3'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 57890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-1	F-CS 2-3'	Total/NA	Solid	8015B NM	57876
890-4944-2	F-CS 4-5'	Total/NA	Solid	8015B NM	57876
890-4944-3	N-CS 0-0.5'	Total/NA	Solid	8015B NM	57876
890-4944-4	N-CS 1.5-2'	Total/NA	Solid	8015B NM	57876
890-4944-5	W-CS 0-0.5'	Total/NA	Solid	8015B NM	57876
890-4944-6	W-CS 1.5-2'	Total/NA	Solid	8015B NM	57876
890-4944-7	S-CS 0-0.5'	Total/NA	Solid	8015B NM	57876
890-4944-8	S-CS 1.5-2'	Total/NA	Solid	8015B NM	57876
890-4944-9	E-CS 0-0.5'	Total/NA	Solid	8015B NM	57876
890-4944-10	E-CS 1.5-2'	Total/NA	Solid	8015B NM	57876
MB 880-57876/1-A	Method Blank	Total/NA	Solid	8015B NM	57876
LCS 880-57876/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57876
LCSD 880-57876/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57876
890-4944-1 MS	F-CS 2-3'	Total/NA	Solid	8015B NM	57876
890-4944-1 MSD	F-CS 2-3'	Total/NA	Solid	8015B NM	57876

Analysis Batch: 58023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-1	F-CS 2-3'	Total/NA	Solid	8015 NM	
890-4944-2	F-CS 4-5'	Total/NA	Solid	8015 NM	
890-4944-3	N-CS 0-0.5'	Total/NA	Solid	8015 NM	
890-4944-4	N-CS 1.5-2'	Total/NA	Solid	8015 NM	
890-4944-5	W-CS 0-0.5'	Total/NA	Solid	8015 NM	
890-4944-6	W-CS 1.5-2'	Total/NA	Solid	8015 NM	
890-4944-7	S-CS 0-0.5'	Total/NA	Solid	8015 NM	
890-4944-8	S-CS 1.5-2'	Total/NA	Solid	8015 NM	
890-4944-9	E-CS 0-0.5'	Total/NA	Solid	8015 NM	
890-4944-10	E-CS 1.5-2'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 57698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-1	F-CS 2-3'	Soluble	Solid	DI Leach	
890-4944-2	F-CS 4-5'	Soluble	Solid	DI Leach	
890-4944-3	N-CS 0-0.5'	Soluble	Solid	DI Leach	
890-4944-4	N-CS 1.5-2'	Soluble	Solid	DI Leach	

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

HPLC/IC (Continued)

Leach Batch: 57698 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-5	W-CS 0-0.5'	Soluble	Solid	DI Leach	
890-4944-6	W-CS 1.5-2'	Soluble	Solid	DI Leach	
890-4944-7	S-CS 0-0.5'	Soluble	Solid	DI Leach	
890-4944-8	S-CS 1.5-2'	Soluble	Solid	DI Leach	
890-4944-9	E-CS 0-0.5'	Soluble	Solid	DI Leach	
890-4944-10	E-CS 1.5-2'	Soluble	Solid	DI Leach	
MB 880-57698/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57698/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57698/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4944-1 MS	F-CS 2-3'	Soluble	Solid	DI Leach	
890-4944-1 MSD	F-CS 2-3'	Soluble	Solid	DI Leach	

Analysis Batch: 57824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4944-1	F-CS 2-3'	Soluble	Solid	300.0	57698
890-4944-2	F-CS 4-5'	Soluble	Solid	300.0	57698
890-4944-3	N-CS 0-0.5'	Soluble	Solid	300.0	57698
890-4944-4	N-CS 1.5-2'	Soluble	Solid	300.0	57698
890-4944-5	W-CS 0-0.5'	Soluble	Solid	300.0	57698
890-4944-6	W-CS 1.5-2'	Soluble	Solid	300.0	57698
890-4944-7	S-CS 0-0.5'	Soluble	Solid	300.0	57698
890-4944-8	S-CS 1.5-2'	Soluble	Solid	300.0	57698
890-4944-9	E-CS 0-0.5'	Soluble	Solid	300.0	57698
890-4944-10	E-CS 1.5-2'	Soluble	Solid	300.0	57698
MB 880-57698/1-A	Method Blank	Soluble	Solid	300.0	57698
LCS 880-57698/2-A	Lab Control Sample	Soluble	Solid	300.0	57698
LCSD 880-57698/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57698
890-4944-1 MS	F-CS 2-3'	Soluble	Solid	300.0	57698
890-4944-1 MSD	F-CS 2-3'	Soluble	Solid	300.0	57698

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: F-CS 2-3'
Lab Sample ID: 890-4944-1
Date Collected: 07/13/23 15:40
Matrix: Solid
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 12:13	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/17/23 16:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 12:47	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 12:02	SMC	EET MID

Client Sample ID: F-CS 4-5'
Lab Sample ID: 890-4944-2
Date Collected: 07/13/23 15:45
Matrix: Solid
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 12:33	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/17/23 16:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 13:54	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 12:18	SMC	EET MID

Client Sample ID: N-CS 0-0.5'
Lab Sample ID: 890-4944-3
Date Collected: 07/13/23 15:50
Matrix: Solid
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 12:54	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/17/23 16:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 14:16	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 12:23	SMC	EET MID

Client Sample ID: N-CS 1.5-2'
Lab Sample ID: 890-4944-4
Date Collected: 07/13/23 15:55
Matrix: Solid
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 13:14	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/17/23 16:06	SM	EET MID

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: N-CS 1.5-2'

Lab Sample ID: 890-4944-4
Matrix: Solid
Date Collected: 07/13/23 15:55
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 14:38	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 12:38	SMC	EET MID

Client Sample ID: W-CS 0-0.5'

Lab Sample ID: 890-4944-5
Matrix: Solid
Date Collected: 07/13/23 16:00
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 13:35	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/17/23 16:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 15:00	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 12:43	SMC	EET MID

Client Sample ID: W-CS 1.5-2'

Lab Sample ID: 890-4944-6
Matrix: Solid
Date Collected: 07/13/23 16:02
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 13:55	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/17/23 16:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 15:22	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 12:48	SMC	EET MID

Client Sample ID: S-CS 0-0.5'

Lab Sample ID: 890-4944-7
Matrix: Solid
Date Collected: 07/13/23 16:07
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 14:16	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/17/23 16:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 15:44	SM	EET MID

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Client Sample ID: S-CS 0-0.5'
Lab Sample ID: 890-4944-7
Date Collected: 07/13/23 16:07
Matrix: Solid
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 12:53	SMC	EET MID

Client Sample ID: S-CS 1.5-2'
Lab Sample ID: 890-4944-8
Date Collected: 07/13/23 16:10
Matrix: Solid
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 14:36	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/17/23 16:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 16:06	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 12:59	SMC	EET MID

Client Sample ID: E-CS 0-0.5'
Lab Sample ID: 890-4944-9
Date Collected: 07/13/23 16:16
Matrix: Solid
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 14:57	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/17/23 16:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 16:28	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 13:04	SMC	EET MID

Client Sample ID: E-CS 1.5-2'
Lab Sample ID: 890-4944-10
Date Collected: 07/13/23 16:18
Matrix: Solid
Date Received: 07/14/23 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	57823	07/17/23 08:40	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 17:01	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57879	07/18/23 10:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			58023	07/19/23 11:00	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	57876	07/17/23 15:02	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57890	07/18/23 16:50	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57698	07/14/23 13:14	KS	EET MID
Soluble	Analysis	300.0		1			57824	07/17/23 13:09	SMC	EET MID

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC Federal Battery

Job ID: 890-4944-1
SDG: A4207045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4944-1	F-CS 2-3'	Solid	07/13/23 15:40	07/14/23 09:05	2 - 3
890-4944-2	F-CS 4-5'	Solid	07/13/23 15:45	07/14/23 09:05	4 - 5
890-4944-3	N-CS 0-0.5'	Solid	07/13/23 15:50	07/14/23 09:05	0 - 0.5
890-4944-4	N-CS 1.5-2'	Solid	07/13/23 15:55	07/14/23 09:05	1.5 - 2
890-4944-5	W-CS 0-0.5'	Solid	07/13/23 16:00	07/14/23 09:05	0 - 0.5
890-4944-6	W-CS 1.5-2'	Solid	07/13/23 16:02	07/14/23 09:05	1.5 - 2
890-4944-7	S-CS 0-0.5'	Solid	07/13/23 16:07	07/14/23 09:05	0 - 0.5
890-4944-8	S-CS 1.5-2'	Solid	07/13/23 16:10	07/14/23 09:05	1.5 - 2
890-4944-9	E-CS 0-0.5'	Solid	07/13/23 16:16	07/14/23 09:05	0 - 0.5
890-4944-10	E-CS 1.5-2'	Solid	07/13/23 16:18	07/14/23 09:05	1.5 - 2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Joe Guerriero	Bill to: (if different)	Joseph Guerriero
Company Name:	Terracon	Company Name:	Terracon
Address:	4502 W Pierce St	Address:	4502 W Pierce St
City, State ZIP:	Carlsbad NM 88220	City, State ZIP:	Carlsbad NM 88220
Phone:		Email:	

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	BC Federal Battery	Turn Around	☐ Routine ☒ Rush
Project Number:	A4207045	Due Date:	1 Day
Project Location:	32.8263, -103.8080	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Ricky Miller		
PO #:			

SAMPLE RECEIPT	Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TWM 007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2		
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	1.2		
Total Containers:		Corrected Temperature:	1.0		

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Chloride (EPA 300)	BTEX (8021B)	TPH (8015)	Sample Comments
E-CS 2-3'	S	7/13	3:40	2-3'	G	1		X	X	X	
E-CS 4-5'	S		3:45	4-5'	G	1		X	X	X	
N-CS 0-0.5'	S		3:50	0-0.5'	G	1		X	X	X	
N-CS 1.5-2'	S		3:55	1.5-2'	G	1		X	X	X	
W-CS 0-0.5'	S		4:00	0-0.5'	G	1		X	X	X	
W-CS 1.5-2'	S		4:02	1.5-2	G	1		X	X	X	
S-CS 0-0.5'	S		4:07	0-0.5	G	1		X	X	X	
S-CS 1.5-2'	S		4:10	1.5-2	G	1		X	X	X	
E-CS 0-0.5'	S		4:16	0-0.5	G	1		X	X	X	
E-CS 1.5-2'	S		4:18	1.5-2	G	1		X	X	X	

890-4944 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	B Miller	Alex Cuy	7-14-23 9:05			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 890-4944-1
SDG Number: A4207045

Login Number: 4944
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
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").	N/A	

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 890-4944-1
SDG Number: A4207045

Login Number: 4944
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 07/17/23 10:06 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
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").	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Joseph Guesnier
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424

Generated 8/23/2023 11:54:11 AM

JOB DESCRIPTION

BC FEDERAL BATTERY
SDG NUMBER AR207045

JOB NUMBER

890-5079-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

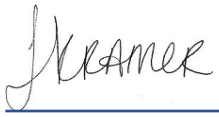
Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
8/23/2023 11:54:11 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Eurofins Carlsbad

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD,and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Coliform MCLs
· Based on the EPA primary drinking water standard MCL for total coliforms, a water supply is considered bacteriologically "SAFE" if no coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 cfu/100mL" or "NEG" for the coliform test. If you report indicates a positive result "POS" or a value greater than or equal to one, then your supply is "UNSAFE FOR DRINKING" contact your local health department.

Warranties, Terms, and Conditions
· Analyses for Field Parameters are performed by Eurofins Philadelphia field staff. Locations and certifications are identified on the Chain of Custody as follows:

ERF = field staff performs tests under NJ State certification #02015
VL = field staff performs tests under NJ State certification #06005
WG = field staff performs tests under NJ State certification #PA001
H = field staff performs tests under NJ NELAP certification #PA093, PA NELAP certification # 46-05499

· Test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.

· The report shall not be reproduced, except in full, without the written consent of the laboratory

· All samples are collected as "grab" samples unless otherwise identified.

· Reported results related only to the samples as tested. Eurofins Philadelphia is not responsible for sample integrity unless sampling has been performed by a member of our staff.

· Eurofins Philadelphia is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance.

· Eurofins' online data portal "TotalAccess" will provide you with real-time access to collection dates and testing results. Please contact Client Services for further information.

· The following personnel or their deputies have approved the results of the tests performed by Eurofins Philadelphia : Nicki Smith (Environmental Chemistry) and Jacqueline Gartner (Water Microbiology).

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Laboratory Job ID: 890-5079-1
SDG: AR207045

Table of Contents

Definitions/Glossary

Client: Terracon Consulting Eng & Scientists Job ID: 890-5079-1
Project/Site: BC FEDERAL BATTERY SDG: AR207045

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
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)
TNTC	Too Numerous To Count

Case Narrative

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Job ID: 890-5079-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-5079-1

Receipt
The samples were received on 8/11/2023 9:53 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: HA-5 (890-5079-1), HA-6 (890-5079-2), HA-7 (890-5079-3), HA-8 (890-5079-4) and HA-9 (890-5079-5).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: HA-5 (890-5079-1) and HA-8 (890-5079-4). Evidence of matrix interferences is not obvious.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-60573 and analytical batch 880-60627 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-60627/20), (CCV 880-60627/31), (CCV 880-60627/5) and (LCSD 880-60573/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: HA-6 (890-5079-2) and HA-9 (890-5079-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Client Sample ID: HA-5

Date Collected: 08/09/23 09:47
Date Received: 08/11/23 09:53
Sample Depth: 1 - 1.5

Lab Sample ID: 890-5079-1
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		08/21/23 14:37	08/22/23 10:08	1
Toluene	<0.00198	U	0.00198		mg/Kg		08/21/23 14:37	08/22/23 10:08	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		08/21/23 14:37	08/22/23 10:08	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		08/21/23 14:37	08/22/23 10:08	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		08/21/23 14:37	08/22/23 10:08	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		08/21/23 14:37	08/22/23 10:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*08/21/23 14:37*	*08/22/23 10:08*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*08/21/23 14:37*	*08/22/23 10:08*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			08/23/23 12:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			08/21/23 13:36	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		08/18/23 12:36	08/20/23 17:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/18/23 12:36	08/20/23 17:15	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/18/23 12:36	08/20/23 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*08/18/23 12:36*	*08/20/23 17:15*	*1*
o-Terphenyl	*116*		*70 - 130*	*08/18/23 12:36*	*08/20/23 17:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**69.7**		5.02		mg/Kg			08/15/23 02:43	1

Client Sample ID: HA-6

Date Collected: 08/09/23 10:22
Date Received: 08/11/23 09:53
Sample Depth: 1 - 1.5

Lab Sample ID: 890-5079-2
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/21/23 14:37	08/22/23 10:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/21/23 14:37	08/22/23 10:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/21/23 14:37	08/22/23 10:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/21/23 14:37	08/22/23 10:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/21/23 14:37	08/22/23 10:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/21/23 14:37	08/22/23 10:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*08/21/23 14:37*	*08/22/23 10:33*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Client Sample ID: HA-6

Date Collected: 08/09/23 10:22
Date Received: 08/11/23 09:53
Sample Depth: 1 - 1.5

Lab Sample ID: 890-5079-2

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*08/21/23 14:37*	*08/22/23 10:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			08/23/23 12:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			08/21/23 13:36	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		08/18/23 12:36	08/20/23 17:38	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		08/18/23 12:36	08/20/23 17:38	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/18/23 12:36	08/20/23 17:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*142*	*S1+*	*70 - 130*	*08/18/23 12:36*	*08/20/23 17:38*	*1*
o-Terphenyl	*127*		*70 - 130*	*08/18/23 12:36*	*08/20/23 17:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60.9**		4.99		mg/Kg			08/15/23 02:50	1

Client Sample ID: HA-7

Date Collected: 08/09/23 11:05
Date Received: 08/11/23 09:53
Sample Depth: 1 - 1.5

Lab Sample ID: 890-5079-3

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/21/23 14:37	08/22/23 10:59	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/21/23 14:37	08/22/23 10:59	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/21/23 14:37	08/22/23 10:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/21/23 14:37	08/22/23 10:59	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/21/23 14:37	08/22/23 10:59	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/21/23 14:37	08/22/23 10:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*08/21/23 14:37*	*08/22/23 10:59*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*08/21/23 14:37*	*08/22/23 10:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			08/23/23 12:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			08/21/23 13:36	1

Eurofins Carlsbad

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Client Sample ID: HA-7

Lab Sample ID: 890-5079-3
Matrix: Solid
Date Collected: 08/09/23 11:05
Date Received: 08/11/23 09:53
Sample Depth: 1 - 1.5

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		08/18/23 12:36	08/20/23 18:01	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		08/18/23 12:36	08/20/23 18:01	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		08/18/23 12:36	08/20/23 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*08/18/23 12:36*	*08/20/23 18:01*	*1*
o-Terphenyl	*110*		*70 - 130*	*08/18/23 12:36*	*08/20/23 18:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**84.4**		5.00		mg/Kg			08/15/23 02:57	1

Client Sample ID: HA-8

Lab Sample ID: 890-5079-4
Matrix: Solid
Date Collected: 08/09/23 11:35
Date Received: 08/11/23 09:53
Sample Depth: 1 - 1.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/21/23 14:37	08/22/23 11:25	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/21/23 14:37	08/22/23 11:25	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/21/23 14:37	08/22/23 11:25	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/21/23 14:37	08/22/23 11:25	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/21/23 14:37	08/22/23 11:25	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/21/23 14:37	08/22/23 11:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*08/21/23 14:37*	*08/22/23 11:25*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*08/21/23 14:37*	*08/22/23 11:25*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			08/23/23 12:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			08/21/23 13:36	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		08/18/23 12:36	08/20/23 18:24	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		08/18/23 12:36	08/20/23 18:24	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		08/18/23 12:36	08/20/23 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*08/18/23 12:36*	*08/20/23 18:24*	*1*
o-Terphenyl	*116*		*70 - 130*	*08/18/23 12:36*	*08/20/23 18:24*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Client Sample ID: HA-8

Lab Sample ID: 890-5079-4
Matrix: Solid
Date Collected: 08/09/23 11:35
Date Received: 08/11/23 09:53
Sample Depth: 1 - 1.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.8		5.00		mg/Kg			08/15/23 03:04	1

Client Sample ID: HA-9

Lab Sample ID: 890-5079-5
Matrix: Solid
Date Collected: 08/09/23 12:01
Date Received: 08/11/23 09:53
Sample Depth: 1 - 1.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/21/23 14:37	08/22/23 11:51	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/21/23 14:37	08/22/23 11:51	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/21/23 14:37	08/22/23 11:51	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		08/21/23 14:37	08/22/23 11:51	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/21/23 14:37	08/22/23 11:51	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		08/21/23 14:37	08/22/23 11:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*08/21/23 14:37*	*08/22/23 11:51*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*08/21/23 14:37*	*08/22/23 11:51*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			08/23/23 12:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			08/21/23 13:36	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		08/18/23 12:36	08/20/23 18:47	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		08/18/23 12:36	08/20/23 18:47	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		08/18/23 12:36	08/20/23 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*08/18/23 12:36*	*08/20/23 18:47*	*1*
o-Terphenyl	*124*		*70 - 130*	*08/18/23 12:36*	*08/20/23 18:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	193		5.03		mg/Kg			08/15/23 03:12	1

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-5079-1	HA-5	139 S1+	113
890-5079-2	HA-6	127	105
890-5079-3	HA-7	110	93
890-5079-4	HA-8	131 S1+	105
890-5079-5	HA-9	116	91
LCS 880-60743/1-A	Lab Control Sample	105	117
LCSD 880-60743/2-A	Lab Control Sample Dup	110	110
MB 880-60677/5-A	Method Blank	68 S1-	91
MB 880-60743/5-A	Method Blank	59 S1-	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-5079-1	HA-5	129	116
890-5079-2	HA-6	142 S1+	127
890-5079-3	HA-7	123	110
890-5079-4	HA-8	128	116
890-5079-5	HA-9	136 S1+	124
LCS 880-60573/2-A	Lab Control Sample	117	101
LCSD 880-60573/3-A	Lab Control Sample Dup	143 S1+	124
MB 880-60573/1-A	Method Blank	163 S1+	146 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-60677/5-A
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/21/23 10:39	08/21/23 12:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/21/23 10:39	08/21/23 12:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/21/23 10:39	08/21/23 12:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/21/23 10:39	08/21/23 12:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/21/23 10:39	08/21/23 12:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/21/23 10:39	08/21/23 12:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*08/21/23 10:39*	*08/21/23 12:15*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*08/21/23 10:39*	*08/21/23 12:15*	*1*

Lab Sample ID: MB 880-60743/5-A
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60743

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/21/23 14:37	08/22/23 01:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/21/23 14:37	08/22/23 01:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/21/23 14:37	08/22/23 01:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/21/23 14:37	08/22/23 01:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/21/23 14:37	08/22/23 01:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/21/23 14:37	08/22/23 01:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*59*	*S1-*	*70 - 130*	*08/21/23 14:37*	*08/22/23 01:43*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*08/21/23 14:37*	*08/22/23 01:43*	*1*

Lab Sample ID: LCS 880-60743/1-A
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60743

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08716		mg/Kg		87	70 - 130
Toluene	0.100	0.07595		mg/Kg		76	70 - 130
Ethylbenzene	0.100	0.08232		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	0.200	0.1666		mg/Kg		83	70 - 130
o-Xylene	0.100	0.07577		mg/Kg		76	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: LCSD 880-60743/2-A
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60743

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09216		mg/Kg		92	70 - 130	6	35

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-60743/2-A
Matrix: Solid
Analysis Batch: 60643

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60743

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09379		mg/Kg		94	70 - 130	21	35
Ethylbenzene			0.100	0.09723		mg/Kg		97	70 - 130	17	35
m-Xylene & p-Xylene			0.200	0.1843		mg/Kg		92	70 - 130	10	35
o-Xylene			0.100	0.09000		mg/Kg		90	70 - 130	17	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-60573/1-A
Matrix: Solid
Analysis Batch: 60627

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 60573

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/18/23 12:36	08/20/23 08:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/18/23 12:36	08/20/23 08:03	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/18/23 12:36	08/20/23 08:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*163*	*S1+*	*70 - 130*	*08/18/23 12:36*	*08/20/23 08:03*	*1*
o-Terphenyl	*146*	*S1+*	*70 - 130*	*08/18/23 12:36*	*08/20/23 08:03*	*1*

Lab Sample ID: LCS 880-60573/2-A
Matrix: Solid
Analysis Batch: 60627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 60573

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	982.8		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)			1000	944.1		mg/Kg		94	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*101*		*70 - 130*

Lab Sample ID: LCSD 880-60573/3-A
Matrix: Solid
Analysis Batch: 60627

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60573

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1052		mg/Kg		105	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1048		mg/Kg		105	70 - 130	10	20

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-60573/3-A
Matrix: Solid
Analysis Batch: 60627

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 60573

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*143*	*S1+*	*70 - 130*
o-Terphenyl	*124*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-60092/1-A
Matrix: Solid
Analysis Batch: 60268

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			08/15/23 01:17	1

Lab Sample ID: LCS 880-60092/2-A
Matrix: Solid
Analysis Batch: 60268

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	257.5		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-60092/3-A
Matrix: Solid
Analysis Batch: 60268

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	258.5		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

GC VOA

Analysis Batch: 60643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5079-1	HA-5	Total/NA	Solid	8021B	60743
890-5079-2	HA-6	Total/NA	Solid	8021B	60743
890-5079-3	HA-7	Total/NA	Solid	8021B	60743
890-5079-4	HA-8	Total/NA	Solid	8021B	60743
890-5079-5	HA-9	Total/NA	Solid	8021B	60743
MB 880-60677/5-A	Method Blank	Total/NA	Solid	8021B	60677
MB 880-60743/5-A	Method Blank	Total/NA	Solid	8021B	60743
LCS 880-60743/1-A	Lab Control Sample	Total/NA	Solid	8021B	60743
LCSD 880-60743/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	60743

Prep Batch: 60677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-60677/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 60743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5079-1	HA-5	Total/NA	Solid	5035	
890-5079-2	HA-6	Total/NA	Solid	5035	
890-5079-3	HA-7	Total/NA	Solid	5035	
890-5079-4	HA-8	Total/NA	Solid	5035	
890-5079-5	HA-9	Total/NA	Solid	5035	
MB 880-60743/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-60743/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-60743/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 60916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5079-1	HA-5	Total/NA	Solid	Total BTEX	
890-5079-2	HA-6	Total/NA	Solid	Total BTEX	
890-5079-3	HA-7	Total/NA	Solid	Total BTEX	
890-5079-4	HA-8	Total/NA	Solid	Total BTEX	
890-5079-5	HA-9	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 60573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5079-1	HA-5	Total/NA	Solid	8015NM Prep	
890-5079-2	HA-6	Total/NA	Solid	8015NM Prep	
890-5079-3	HA-7	Total/NA	Solid	8015NM Prep	
890-5079-4	HA-8	Total/NA	Solid	8015NM Prep	
890-5079-5	HA-9	Total/NA	Solid	8015NM Prep	
MB 880-60573/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-60573/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-60573/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 60627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5079-1	HA-5	Total/NA	Solid	8015B NM	60573
890-5079-2	HA-6	Total/NA	Solid	8015B NM	60573
890-5079-3	HA-7	Total/NA	Solid	8015B NM	60573

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

GC Semi VOA (Continued)

Analysis Batch: 60627 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5079-4	HA-8	Total/NA	Solid	8015B NM	60573
890-5079-5	HA-9	Total/NA	Solid	8015B NM	60573
MB 880-60573/1-A	Method Blank	Total/NA	Solid	8015B NM	60573
LCS 880-60573/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	60573
LCSD 880-60573/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	60573

Analysis Batch: 60737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5079-1	HA-5	Total/NA	Solid	8015 NM	
890-5079-2	HA-6	Total/NA	Solid	8015 NM	
890-5079-3	HA-7	Total/NA	Solid	8015 NM	
890-5079-4	HA-8	Total/NA	Solid	8015 NM	
890-5079-5	HA-9	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 60092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5079-1	HA-5	Soluble	Solid	DI Leach	
890-5079-2	HA-6	Soluble	Solid	DI Leach	
890-5079-3	HA-7	Soluble	Solid	DI Leach	
890-5079-4	HA-8	Soluble	Solid	DI Leach	
890-5079-5	HA-9	Soluble	Solid	DI Leach	
MB 880-60092/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-60092/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-60092/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 60268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5079-1	HA-5	Soluble	Solid	300.0	60092
890-5079-2	HA-6	Soluble	Solid	300.0	60092
890-5079-3	HA-7	Soluble	Solid	300.0	60092
890-5079-4	HA-8	Soluble	Solid	300.0	60092
890-5079-5	HA-9	Soluble	Solid	300.0	60092
MB 880-60092/1-A	Method Blank	Soluble	Solid	300.0	60092
LCS 880-60092/2-A	Lab Control Sample	Soluble	Solid	300.0	60092
LCSD 880-60092/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	60092

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Client Sample ID: HA-5
Date Collected: 08/09/23 09:47
Date Received: 08/11/23 09:53

Lab Sample ID: 890-5079-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	60743	08/21/23 14:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60643	08/22/23 10:08	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60916	08/23/23 12:30	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60737	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	60573	08/18/23 12:36	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 17:15	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	60092	08/14/23 09:35	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60268	08/15/23 02:43	SMC	EET MID

Client Sample ID: HA-6
Date Collected: 08/09/23 10:22
Date Received: 08/11/23 09:53

Lab Sample ID: 890-5079-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	60743	08/21/23 14:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60643	08/22/23 10:33	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60916	08/23/23 12:30	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60737	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	60573	08/18/23 12:36	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 17:38	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	60092	08/14/23 09:35	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60268	08/15/23 02:50	SMC	EET MID

Client Sample ID: HA-7
Date Collected: 08/09/23 11:05
Date Received: 08/11/23 09:53

Lab Sample ID: 890-5079-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	60743	08/21/23 14:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60643	08/22/23 10:59	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60916	08/23/23 12:30	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60737	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	60573	08/18/23 12:36	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 18:01	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	60092	08/14/23 09:35	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60268	08/15/23 02:57	SMC	EET MID

Client Sample ID: HA-8
Date Collected: 08/09/23 11:35
Date Received: 08/11/23 09:53

Lab Sample ID: 890-5079-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	60743	08/21/23 14:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60643	08/22/23 11:25	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60916	08/23/23 12:30	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Client Sample ID: HA-8

Date Collected: 08/09/23 11:35
Date Received: 08/11/23 09:53

Lab Sample ID: 890-5079-4

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	8015 NM		1			60737	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	60573	08/18/23 12:36	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 18:24	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	60092	08/14/23 09:35	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60268	08/15/23 03:04	SMC	EET MID

Client Sample ID: HA-9

Date Collected: 08/09/23 12:01
Date Received: 08/11/23 09:53

Lab Sample ID: 890-5079-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	60743	08/21/23 14:37	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	60643	08/22/23 11:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			60916	08/23/23 12:30	AJ	EET MID
Total/NA	Analysis	8015 NM		1			60737	08/21/23 13:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	60573	08/18/23 12:36	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	60627	08/20/23 18:47	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	60092	08/14/23 09:35	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	60268	08/15/23 03:12	SMC	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: BC FEDERAL BATTERY

Job ID: 890-5079-1
SDG: AR207045

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5079-1	HA-5	Solid	08/09/23 09:47	08/11/23 09:53	1 - 1.5
890-5079-2	HA-6	Solid	08/09/23 10:22	08/11/23 09:53	1 - 1.5
890-5079-3	HA-7	Solid	08/09/23 11:05	08/11/23 09:53	1 - 1.5
890-5079-4	HA-8	Solid	08/09/23 11:35	08/11/23 09:53	1 - 1.5
890-5079-5	HA-9	Solid	08/09/23 12:01	08/11/23 09:53	1 - 1.5

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Joseph Guesnier	Bill to: (if different)	Kathy Porvis
Company Name:	Terracon	Company Name:	Spur
Address:	4518 W. Pierce St	Address:	
City, State ZIP:	Carlsbad NM, 88220	City, State ZIP:	
Phone:	(806)-300-0140	Email:	Gus.Sanchez@Terracon.com; Travis.Casey@Terracon.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	BC Federal Battery	Turn Around	☑ Routine ☐ Rush
Project Number:	AR207045	Due Date:	
Project Location:	Lea County	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Gus Sanchez		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	1.4
Total Containers:		Corrected Temperature:	1.4

ANALYSIS REQUEST

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

890-5079 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Chloride (EPA 300)	BTEX (8021 B)	TPH (8015)
HA-5	Soil	8-9-23	9:47	1-1½'	Comp	1	✓	✓	✓
HA-6	Soil	8-9-23	10:22	1-1½'	Comp	1	✓	✓	✓
HA-7	Soil	8-9-23	11:05	1-1½'	Comp	1	✓	✓	✓
HA-8	Soil	8-9-23	11:35	1-1½'	Comp	1	✓	✓	✓
HA-9	Soil	8-9-23	12:01	1-1½'	Comp	1	✓	✓	✓

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8-11-23 953	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St
Carlsbad, NM 88220
Phone. 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-1426 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-5079-1
Address: 1211 W Florida Ave,	Due Date Requested: 8/17/2023			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: BC FEDERAL BATTERY	Project #: 89000113			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B - NaOH, C Zn Acetate, D - Nitric Acid, E NaHSO4, F - MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L - EDA, M - Hexane, N None, O - AsNaO2, P Na2O4S, Q - Na2SO3, R Na2S2O3, S H2SO4, T - TSP Dodecahydrate, U Acetone, V - MCAA, W pH 4-5, Y - Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
HA-5 (890-5079-1)	8/9/23	09 47 Mountain		Solid			X	X	X	X	X	1	
HA-6 (890-5079-2)	8/9/23	10 22 Mountain		Solid			X	X	X	X	X	1	
HA-7 (890-5079-3)	8/9/23	11 05 Mountain		Solid			X	X	X	X	X	1	
HA-8 (890-5079-4)	8/9/23	11 35 Mountain		Solid			X	X	X	X	X	1	
HA-9 (890-5079-5)	8/9/23	12 01 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I, II, III IV Other (specify) Primary Deliverable Rank. 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

Relinquished by: Clue	Date/Time	Company	Received by: Kramer	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 890-5079-1
SDG Number: AR207045

Login Number: 5079
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
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").	N/A	

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 890-5079-1
SDG Number: AR207045

Login Number: 5079
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 08/14/23 08:11 AM

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)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
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").	N/A	

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
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 269386

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 269386
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	None	2/29/2024