



August 17, 2023

New Mexico Oil Conservation Division New Mexico Energy, Minerals, and Natural Resources Department 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Closure Request Red Raider BKS State 001 Incident Number NAPP2315734307 Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities performed at the Red Raider BKS State 001 (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to address impacts to soil following a crude oil release and flare fire at the Site. Based on field observations, excavation activities, and soil sample laboratory analytical results, COG is submitting this *Closure Request,* describing remediation that has occurred and requesting closure for Incident Number NAPP2315734307.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit J, Section 25, Township 24 South, Range 33 East, in Lea County, New Mexico (32.1865°, -103.5246°) and is associated with oil and gas exploration and production operations on State Land managed by the New Mexico State Land Office (NMSLO).

On June 1, 2023, an equipment malfunction caused approximately 1.284 barrels (bbls) of crude oil to be sent to the flare. The crude oil ignited and extinguished itself after reaching the ground. The release affected the well pad beneath the flare and the pasture area immediately adjacent to the well pad. COG reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email and submitted a Release Notification Form C-141 (Form C-141) on June 6, 2023. The release was assigned Incident Number NAPP2315734307.

Since the release remained on and immediately adjacent to the active well pad, an assessment of cultural properties had already been completed prior to the construction of the well pad and as such, the Cultural Properties Protection Rule (CPP) has been followed. No additional cultural resource surveys were completed in connection with this release.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential Site receptors are identified on Figure 1.

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Depth to groundwater at the Site is estimated to be between 51 and 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) C-03602, located approximately 0.2 miles northwest of the Site. The groundwater well was drilled during January 2013 to a total depth of 75 feet bgs, and no groundwater was encountered. All wells used for depth to groundwater determination are presented on Figure 1. The associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a riverine, located approximately 777 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- Total Petroleum Hydrocarbons (TPH): 2,500 mg/kg
- Chloride: 10,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On June 7, 2023, Ensolum personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. The stained soil from the fire had been scraped up prior to Ensolum personnel visiting the Site. Four assessment soil samples (SS01 through SS04) were collected around the release area at a depth of 0.5 feet bgs to confirm the lateral extent of the release. Five assessment soil samples (SS05 through SS09) were collected within the release area at an approximate depth of 0.5 feet bgs to assess for the presence or absence of impacted soil resulting from the crude oil flare fire. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach[®] chloride QuanTab[®] test strips. Photographic documentation was completed during the Site visit and a photographic log is included as Appendix B.

On July 6, 2023, Ensolum personnel returned to the Site to complete additional assessment activities to further confirm the absence of impacted soil. Boreholes were advanced via hand auger at the locations of assessment samples SS05, SS07, and SS08, and an additional borehole (SS10) was advanced within the release extent. Soil from the boreholes was field screened for VOCs and chloride. One discrete soil sample was collected from boreholes SS05, SS07, and SS08 at a depth of 1-foot bgs. Two discrete soil samples were collected from borehole SS10 at depths of 0.5 feet and 1-foot bgs. The release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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The soil samples were placed into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and placed on ice. The soil samples were transported under chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for assessment soil samples SS01 through SS04, collected around the release extent, indicated all COC concentrations were compliant with the most stringent Table I Site Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results for assessment soil samples SS05/SS05A, SS07/SS07A, SS08/SS08A, and SS10/SS10A, collected within the release extent, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results for assessment soil samples SS06 and SS09, collected within the release extent at an approximate depth of 0.5 feet bgs, indicated TPH concentrations exceeded the most stringent Table I Closure Criteria. Laboratory analytical reports are included as Appendix C.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On July 6, 2023, Ensolum personnel were on Site to oversee excavation activities based on visible staining in the release area around soil samples SS06 and SS09. Excavation activities were performed using a backhoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to a depth of 1-foot bgs. Photographic documentation of the excavation activities is included in Appendix B.

Following removal of impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS10 were collected from the floor of the excavation at a depth of 1-foot bgs. Due to the shallow depth of the excavation, the sidewalls were incorporated into the floor samples. The soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

Laboratory analytical results for excavation soil samples FS01 through FS10 indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix C.

The excavation area measured approximately 2,050 square feet. A total of 76 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the June 1, 2023, crude oil flare fire. Laboratory analytical results for the excavation soil samples indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. Additionally, the release was laterally and vertically delineated to the most stringent Table I Closure Criteria. Based on soil sample analytical results, no further remediation is required.

Depth to groundwater has been estimated to be between 51 and 100 feet bgs and no other sensitive receptors were identified near the release extent. COG believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, COG respectfully requests

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closure for Incident Number NAPP2315734307. The NMOCD notifications are included in Appendix D and the Form C-141 is included in Appendix E. A Reclamation Plan for the disturbed pasture area is included in Appendix F for NMSLO review.

If you have any questions or comments, please contact Ms. Hadlie Green at (432) 557-8895 or hgreen@ensolum.com.

Sincerely, Ensolum, LLC

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Hadlie Green Project Geologist

Aimee Cole Senior Managing Scientist

cc: Jacob Laird, COG Operating, LLC New Mexico State Land Office

Appendices:

Figure 1 Site Receptor Map Figure 2 Assessment Soil Sample Locations Excavation Soil Sample Locations Figure 3 Soil Sample Analytical Results Table 1 Appendix A **Referenced Well Records** Appendix B Photographic Log Appendix C Laboratory Analytical Reports & Chain-of-Custody Documentation Appendix D NMOCD Notifications Appendix E Final C-141 Appendix F **Reclamation Plan**



FIGURES





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Lea County, New Mexico



TABLES

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ENSOLUM

				RED RAIL C	TABLE 1 LE ANALYTICA DER BKS STATE OG Operating, LI County, New Me	COM 001 _C				
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I	Closure Criteria	(NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	10,000
		·		Asse	essment Soil San	nples				
SS01	06/07/2023	0.5	<0.00202	<0.00404	<49.8	<49.8	<49.8	<49.8	<49.8	91.9
SS02*	06/07/2023	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	44.1
SS03*	06/07/2023	0.5	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	65.7
SS04*	06/07/2023	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	37.6
SS05	06/07/2023	0.5	<0.00200	<0.00400	<49.9	55.5	<49.9	55.5	55.5	235
SS05A	07/06/2023	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	157
SS06*	06/07/2023	0.5	<0.00199	<0.00398	<49.9	501	<49.9	501	501	95.8
SS07*	06/07/2023	0.5	<0.00201	<0.00402	<50.0	89.9	<50.0	89.9	89.9	69.3
SS07A*	07/06/2023	1	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	77.4
SS08*	06/07/2023	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	51.6
SS08A*	07/06/2023	1	<0.00200	<0.00399	<50.0	19.1	<50.1	19.1	19.1	72.1
SS09*	06/07/2023	0.5	<0.00199	<0.00398	<49.9	375	<49.9	375	375	216
SS10	07/06/2023	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	138
SS10A	07/06/2023	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	83.2

E N S O L U M

				RED RAII	TABLE 1 LE ANALYTICA DER BKS STATE OG Operating, LI County, New Me	COM 001			-	
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I	Closure Criteria	(NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	10,000
				Exc	avation Soil Sam	ples				
FS01*	07/06/2023	1	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	62.4
FS02*	07/06/2023	1	<0.00198	<0.00397	<49.5	<49.5	<49.5	<49.5	<49.5	131
FS03*	07/06/2023	1	<0.00199	<0.00398	<50.5	<50.5	<50.5	<50.5	<50.5	68.2
FS04*	07/06/2023	1	<0.00198	<0.00396	<50.5	<50.5	<50.5	<50.5	<50.5	69.9
FS05*	07/06/2023	1	<0.00200	<0.00400	<50.3	<50.3	<50.3	<50.3	<50.3	68.2
FS06*	07/06/2023	1	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	138
FS07*	07/06/2023	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	131
FS08*	07/06/2023	1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	45.0
FS09*	07/06/2023	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	83.8
FS10*	07/06/2023	1	<0.00200	<0.00401	<49.9	65.4	<49.9	65.4	65.4	79.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

Grey text represents samples that have been excavated

* indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard in the top 4 feet is 600 mg/kg for chloride and 100 mg/kg for TPH.



APPENDIX A

Referenced Well Records



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

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WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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	FROM	TO	THICKNESS (feet)	INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES	BEARING?	WATER-
	FROM	то		(attach supplemental sheets to fully describe all units)	(YES / NO)	BEARING ZONES (gpm)
	0	3	3	BROWN SILTY SAND, LOOSE	C Y @ N	N/A
	3	18	15	CALICHE WHITE SILTY SAND, VERY DENSE	CY (N	N/A
	18	37	19	RED SILTY SAND, VERY DENSE	CY (N	N/A
	37	75	38	SHALE GREEN SILTY SAND, VERY DENSE	CY @ N	N/A
					CYCN	
-T					CYCN	
HYDROGEOLOGIC LOG OF WELL						
0F					CYCN	
l S l						
CIC	·					
010			ļ			
GEC				······································		
DRO				· · · · · · · · · · · · · · · · · · ·		
	··	 	 		<u>CYCN</u>	
					CYCN	
			<u>.</u>		CYCN	
Ì						
			ļ	· · · · · · · · · · · · · · · · · · ·		
			ļ		$C^{Y} C^{N}$	
					TAL ESTIMATED 'ELL YIELD (gpm):	l
	C AIR LIF [™]	т (BAILER C	OTHER - SPECIFY:		
z	WELL TES	T TEST STAR	RESULTS - ATT T TIME, END TI	ACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLU ME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER T	DING DISCHARGE	ME3H UO D, ≀ DD⊃ 5
VISION	MISCELLA		ORMATION:			
	moencer		ondin thom.		JAN	ENO
SUP					ω	NID N
RIG						E
TEST; RIG SUPER				VISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTR		IANUICENSEE
5. TE	T KINT DAD	10(3) 01 01	ALL NO JUPP	VISOR(S) THAT FROM DED ONSITE SOLERVISION OF WELL CONSTR	•	5- 7 1
					<u> </u>	JUCE.
SIGNATURE	CORRECT F	RECORD O	F THE ABOVE D	IES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, ESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECO 0 DAYS AFTER COMPLETION OF WELL DRILLING:		
6. SIGN	ter	SIGNAT	URE OF DRILLE	Kodney Hammer 1	-23-13 DATE	
		<u> </u>				
	E OSE INTERI		2/00	POD NUMBER / TRN NUMBER	RECORD & LOG (Ve	rsion 06/08/2012)
	CATION	<u> </u>	3600	3E - Bec 26.122		PAGE 2 OF 2

USGS Home Contact USGS Search USGS



National Water Information System: Web Interface

USGS Water Resources

 Data Category:
 Geographic Area:

 Groundwater
 V
 United States
 GO

Click to hideNews Bulletins

- Explore the NEW USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News 🔊

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

Search Results -- 1 sites found

Agency code = usgs site_no list = • 321127103310401

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321127103310401 24S.33E.24.44444

Lea County, New Mexico Latitude 32°11'27", Longitude 103°31'04" NAD27 Land-surface elevation 3,538 feet above NAVD88 This well is completed in the Other aquifers (N9999OTHER) national aquifer. This well is completed in the Ogallala Formation (1210GLL) local aquifer.

Output formats

Table of data	
Tab-separated data	
Graph of data	
Reselect period	

Date	Time	? Water- level date- time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
1953-11-27		D	62610		3518.95	NGVD29	1	Z		
1953-11-27		D	62611		3520.60	NAVD88	1	Z		
1953-11-27		D	72019	17.40			1	Z		
1976-01-21		D	62610		3522.78	NGVD29	1	Z		
1976-01-21		D	62611		3524.43	NAVD88	1	Z		
1976-01-21		D	72019	13.57			1	Z		
1981-03-19		D	62610		3520.32	NGVD29	1	Z		
1981-03-19		D	62611		3521.97	NAVD88	1	Z		
1981-03-19		D	72019	16.03			1	Z		
1986-03-06		D	62610		3521.55	NGVD29	1	Z		
1986-03-06		D	62611		3523.20	NAVD88	1	Z		
1986-03-06		D	72019	14.80			1	Z		
1991-05-29		D	62610		3518.79	NGVD29	1	Z		
1991-05-29		D	62611		3520.44	NAVD88	1	Z		
1991-05-29		D	72019	17.56			1	Z		

Received by OCD: 8/22/2023 10:19:11 AM

	Explanation						
Section	Code	Description					
Water-level date-time accuracy	D	Date is accurate to the Day					
Parameter code	62610	Groundwater level above NGVD 1929, feet					
Parameter code	62611	Groundwater level above NAVD 1988, feet					
Parameter code	72019	Depth to water level, feet below land surface					
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988					
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929					
Status	1	Static					
Method of measurement	Z	Other.					
Measuring agency		Not determined					
Source of measurement		Not determined					
Water-level approval status	А	Approved for publication Processing and review completed.					

<u>Questions or Comments</u> <u>Automated retrievals</u> <u>Help</u> <u>Data Tips</u> <u>Explanation of terms</u> <u>Subscribe for system changes</u> <u>News</u>

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U.S. Department of the Interior | U.S. Geological Survey Title: Groundwater for USA: Water Levels URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2023-06-21 09:25:45 EDT 0.27 0.24 nadww02 USA.gov



APPENDIX B

Photographic Log





APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

Received by OCD: 8/22/2023 10:19:11 AM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 6/16/2023 3:18:06 PM

JOB DESCRIPTION

Red Raider BKS (part 2) SDG NUMBER 03D2024198

JOB NUMBER

890-4794-1

EOL

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



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

AMER

Generated 6/16/2023 3:18:06 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Laboratory Job ID: 890-4794-1 SDG: 03D2024198

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Sample Summary	29
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	Definitions/Glossary						
-	lient: EnsolumJob ID: 890-4794-1roject/Site: Red Raider BKS (part 2)SDG: 03D2024198						
Qualifiers							
GC VOA Qualifier	Qualifier Description						
*+	LCS and/or LCSD is outside acceptance limits, high biased.						
F1	MS and/or MSD recovery exceeds control limits.						
U	Indicates the analyte was analyzed for but not detected.						
GC Semi VC	A						
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.						
HPLC/IC							
Qualifier	Qualifier Description						
F1	MS and/or MSD recovery exceeds control limits.						
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

Released to Imaging: 8/30/2023 3:09:30 PM

Eurofins Carlsbad

Job ID: 890-4794-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4794-1

Receipt

The samples were received on 6/8/2023 8:28 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 2.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4794-1), SS02 (890-4794-2), SS03 (890-4794-3), SS04 (890-4794-4), SS05 (890-4794-5), SS06 (890-4794-6), SS07 (890-4794-7), SS08 (890-4794-8) and SS09 (890-4794-9).

GC VOA

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-55146 and analytical batch 880-55553 recovered outside control limits for the following analytes: Benzene and Toluene. These analytes were acceptable in the LCS, therefore, the data was qualified and reported.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-55146 and analytical batch 880-55553 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS) precision was within acceptance limits.

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 sample was outside control limits: (MB 880-55159/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS05 (890-4794-5), SS06 (890-4794-6), SS07 (890-4794-7), SS09 (890-4794-9), (890-4794-A-5-D MS) and (890-4794-A-5-E MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-55158/2-A) and (LCSD 880-55158/3-A). 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.

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-55047 and analytical batch 880-55167 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Job ID: 890-4794-1 SDG: 03D2024198

Lab Sample ID: 890-4794-1

Client Sample ID: SS01

Date Collected: 06/07/23 09:40 Date Received: 06/08/23 08:28

Sample Depth: 0.5'

Client: Ensolum

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *+ F1	0.00202	mg/Kg		06/09/23 13:04	06/15/23 13:53	1
Toluene	<0.00202	U *+ F1	0.00202	mg/Kg		06/09/23 13:04	06/15/23 13:53	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/09/23 13:04	06/15/23 13:53	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		06/09/23 13:04	06/15/23 13:53	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/09/23 13:04	06/15/23 13:53	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		06/09/23 13:04	06/15/23 13:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130			06/09/23 13:04	06/15/23 13:53	1
1,4-Difluorobenzene (Surr)	101		70 - 130			06/09/23 13:04	06/15/23 13:53	1
Method: TAL SOP Total BTEX	- Total BTEX Cale	culation						
		culation Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: TAL SOP Total BTEX Analyte Total BTEX		Qualifier	RL 0.00404	Unit mg/Kg	D	Prepared	Analyzed 06/16/23 12:59	Dil Fac
Analyte	Result <0.00404	Qualifier U	0.00404		<u>D</u>	Prepared		Dil Fac
Analyte Total BTEX	Result <0.00404	Qualifier U	0.00404		<u>D</u>	Prepared Prepared		Dil Fac 1 Dil Fac

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		06/09/23 14:01	06/13/23 05:52	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		06/09/23 14:01	06/13/23 05:52	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		06/09/23 14:01	06/13/23 05:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			06/09/23 14:01	06/13/23 05:52	1
o-Terphenyl	107		70 - 130			06/09/23 14:01	06/13/23 05:52	1

	Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
l	Chloride	91.9	F1	4.97	mg/Kg			06/09/23 14:32	1

Client Sample ID: SS02 Date Collected: 06/07/23 09:45

Date Received: 06/08/23 08:28

Sample Depth: 0.5'

Method: SW846 8021B - Volat	ile Organic Comp	ounds (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200	mg/Kg		06/09/23 13:04	06/15/23 14:13	1
Toluene	<0.00200	U *+	0.00200	mg/Kg		06/09/23 13:04	06/15/23 14:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/09/23 13:04	06/15/23 14:13	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		06/09/23 13:04	06/15/23 14:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/09/23 13:04	06/15/23 14:13	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		06/09/23 13:04	06/15/23 14:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130			06/09/23 13:04	06/15/23 14:13	1

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Lab Sample ID: 890-4794-2

Matrix: Solid

Matrix: Solid

5

Client Sample Results

Job ID: 890-4794-1 SDG: 03D2024198

Matrix: Solid

5

Lab Sample ID: 890-4794-2

Client Sample ID: SS02

Date Collected: 06/07/23 09:45 Date Received: 06/08/23 08:28

Sample Depth: 0.5'

Client: Ensolum

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

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130			06/09/23 13:04	06/15/23 14:13	1
Method: TAL SOP Total BTEX - T	otal BTEX Calo	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			06/16/23 12:59	1
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			06/13/23 12:05	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		06/09/23 14:01	06/13/23 06:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		06/09/23 14:01	06/13/23 06:12	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/09/23 14:01	06/13/23 06:12	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130	06/09/23 14:01	06/13/23 06:12	1
o-Terphenyl	130		70 - 130	06/09/23 14:01	06/13/23 06:12	1

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	E.					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.1		5.03	mg/Kg			06/09/23 14:48	1

Client Sample ID: SS03

Date Collected: 06/07/23 09:50 Date Received: 06/08/23 08:28 Sample Depth: 0.5'

Method: SW846 8021B - Volatile	Organic Comp	ounds (GC))					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *+	0.00202	mg/Kg		06/09/23 13:04	06/15/23 14:34	1
Toluene	<0.00202	U *+	0.00202	mg/Kg		06/09/23 13:04	06/15/23 14:34	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		06/09/23 13:04	06/15/23 14:34	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		06/09/23 13:04	06/15/23 14:34	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		06/09/23 13:04	06/15/23 14:34	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		06/09/23 13:04	06/15/23 14:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130			06/09/23 13:04	06/15/23 14:34	1
1,4-Difluorobenzene (Surr)	94		70 - 130			06/09/23 13:04	06/15/23 14:34	1
- Method: TAL SOP Total BTEX -	Total BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			06/16/23 12:59	1
	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			06/13/23 12:05	1

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Matrix: Solid

: Comp	ounds (GC)	(Continued)		
ecovery	Qualifier	Limits		
95		70 - 130		
EX Calo	culation			
Result	Qualifier	RL	Unit	D
0.00404		0.00101		

Lab Sample ID: 890-4794-3

Released to Imaging: 8/30/2023 3:09:30 PM

Job ID: 890-4794-1 SDG: 03D2024198

Lab Sample ID: 890-4794-3

Analyzed

Lab Sample ID: 890-4794-4

Client Sample ID: SS03

Date Collected: 06/07/23 09:50 Date Received: 06/08/23 08:28

Sample Depth: 0.5'

Client: Ensolum

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL

1
1
1
Dil Fac
DirFac
1
1
_

Unit

D

Prepared

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.7	5.02	mg/Kg			06/09/23 14:53	1

Client Sample ID: SS04

Date Collected: 06/07/23 09:55

Date Received: 06/08/23 08:28

Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198	mg/Kg		06/09/23 13:04	06/15/23 14:54	1
Toluene	<0.00198	U *+	0.00198	mg/Kg		06/09/23 13:04	06/15/23 14:54	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		06/09/23 13:04	06/15/23 14:54	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		06/09/23 13:04	06/15/23 14:54	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		06/09/23 13:04	06/15/23 14:54	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		06/09/23 13:04	06/15/23 14:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			06/09/23 13:04	06/15/23 14:54	1
1,4-Difluorobenzene (Surr)	96		70 - 130			06/09/23 13:04	06/15/23 14:54	1
Method: TAL SOP Total BTEX - 1								
Analyte Total BTEX	Result <0.00396	Qualifier U	RL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 06/16/23 12:59	Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese	Result <0.00396 el Range Organ	Qualifier U	0.00396		<u>D</u>	Prepared Prepared		Dil Fac
Analyte Total BTEX	Result <0.00396 el Range Organ	Qualifier U ics (DRO) (Qualifier	0.00396	mg/Kg		`	06/16/23 12:59	1
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte	el Range Organ Result el Range Organ Result <49.9	Qualifier U ics (DRO) (Qualifier U	0.00396 GC) RL 49.9	mg/Kg Unit		`	06/16/23 12:59 Analyzed	1
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese	el Range Organ Result 41 Range Organ 41 Result 49.9 sel Range Orga	Qualifier U ics (DRO) (Qualifier U	0.00396 GC) RL 49.9	mg/Kg Unit		`	06/16/23 12:59 Analyzed	1 Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	el Range Organ Result 41 Range Organ 41 Result 49.9 sel Range Orga	Qualifier U ics (DRO) (Qualifier U nics (DRO) Qualifier	0.00396 GC) <u>RL</u> 49.9 (GC)	mg/Kg Unit mg/Kg	D	Prepared	06/16/23 12:59 Analyzed 06/13/23 12:05	1 Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ Result <49.9 sel Range Orga Result Result	Qualifier U ics (DRO) (Qualifier U nics (DRO) Qualifier U	0.00396 GC) RL 49.9 (GC) RL	mg/Kg Unit mg/Kg Unit	D	Prepared	06/16/23 12:59 Analyzed 06/13/23 12:05 Analyzed	1

Dil Fac %Recovery Qualifier Limits Analyzed Surrogate Prepared 1-Chlorooctane 85 70 - 130 06/09/23 14:01 06/13/23 06:57 1 o-Terphenyl 92 70 - 130 06/09/23 14:01 06/13/23 06:57 1

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.

		Clien	t Sample Re	sults				
Client: Ensolum							Job ID: 890	-4794-1
Project/Site: Red Raider BKS (part 2	2)						SDG: 03D2	2024198
Client Sample ID: SS04						Lab Sar	nple ID: 890-	4794-4
Date Collected: 06/07/23 09:55							Matri	x: Solic
Date Received: 06/08/23 08:28								
Sample Depth: 0.5'								
 Method: EPA 300.0 - Anions, Ion	Chromotogram	shy Solubl						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.6		4.97	mg/Kg			06/09/23 14:59	1
liont Sample ID: SS05						Lab Sar		A70A 6
Client Sample ID: SS05						Lan Sai	nple ID: 890-	
Date Collected: 06/07/23 10:00 Date Received: 06/08/23 08:28							watr	x: Solid
Sample Depth: 0.5'								
Method: SW846 8021B - Volatile 0								
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200		0.00200	mg/Kg		06/09/23 13:04	06/15/23 15:15	1
Toluene	<0.00200		0.00200	mg/Kg		06/09/23 13:04	06/15/23 15:15	1
Ethylbenzene	<0.00200		0.00200	mg/Kg		06/09/23 13:04	06/15/23 15:15	
m-Xylene & p-Xylene	< 0.00400		0.00400	mg/Kg		06/09/23 13:04	06/15/23 15:15	
o-Xylene Xylenes, Total	<0.00200 <0.00400		0.00200 0.00400	mg/Kg mg/Kg		06/09/23 13:04 06/09/23 13:04	06/15/23 15:15 06/15/23 15:15	1
Ayienes, Total	\$0.00400	0	0.00400	ilig/itg		00/03/23 13:04	00/13/23 13:13	'
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130			06/09/23 13:04	06/15/23 15:15	1
1,4-Difluorobenzene (Surr)	96		70 - 130			06/09/23 13:04	06/15/23 15:15	1
- Method: TAL SOP Total BTEX - To	otal BTEX Cal	culation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			06/16/23 12:59	1
-	_							
Method: SW846 8015 NM - Diesel				11	_	Durante	A see borne al	D!!
Analyte Total TPH	55.5	Qualifier		Unit mg/Kg	D	Prepared	Analyzed 06/12/23 14:35	Dil Fac
	55.5		40.0	mg/rtg			00/12/20 14:00	
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		06/09/23 14:05	06/10/23 21:55	1
(GRO)-C6-C10			40.0	114		00/00/00 44.05	00/40/00 04 55	
Diesel Range Organics (Over C10-C28)	55.5		49.9	mg/Kg		06/09/23 14:05	06/10/23 21:55	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/09/23 14:05	06/10/23 21:55	1
	•·-					_		
Surrogate	%Recovery		Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane		S1+	70 - 130			06/09/23 14:05	06/10/23 21:55	1
o-Terphenyl	105		70 - 130			06/09/23 14:05	06/10/23 21:55	1
Method: EPA 300.0 - Anions, Ion	Chromatogram	hy - Solubl	e					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorida			5.01	ma/Ka			06/00/23 15:04	

06/09/23 15:04

Chloride

5.01

mg/Kg

RL

0.00199

0.00199

0.00199

0.00398

0.00199

0.00398

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

Prepared

06/09/23 13:04

06/09/23 13:04

06/09/23 13:04

06/09/23 13:04

06/09/23 13:04

06/09/23 13:04

Job ID: 890-4794-1 SDG: 03D2024198

Client Sample ID: SS06

Project/Site: Red Raider BKS (part 2)

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

Result Qualifier

<0.00199 U*+

<0.00199 U*+

<0.00199 U

<0.00398 U

<0.00199 U

<0.00398 U

Date Collected: 06/07/23 10:05 Date Received: 06/08/23 08:28

Sample Depth: 0.5'

Client: Ensolum

Analyte

Benzene

Toluene

o-Xylene

Surrogate

Analyte

Analyte

Analyte

Total TPH

Total BTEX

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

Lab Sample ID: 890-4794-6

Analyzed

06/15/23 15:35

06/15/23 15:35

06/15/23 15:35

06/15/23 15:35

06/15/23 15:35

06/15/23 15:35

Analyzed

06/15/23 15:35

06/15/23 15:35

Analyzed

06/16/23 12:59

Analyzed

06/12/23 14:35

Analyzed

Lab Sample ID: 890-4794-7

Matrix: Solid

Matrix: Solid

7 94-6 Solid	
	5
Dil Fac	
1	
1	
1	
1	
1	8
1	U
Dil Fac	9
1 1	
Dil Fac	
1	
Dil Fac	13
1	

Dil Fac

%Recovery Qualifier Limits Prepared 06/09/23 13:04 4-Bromofluorobenzene (Surr) 102 70 - 130 70 - 130 06/09/23 13:04 1,4-Difluorobenzene (Surr) 97 Method: TAL SOP Total BTEX - Total BTEX Calculation Result Qualifier RL Unit D Prepared < 0.00398 U 0.00398 mg/Kg Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Result Qualifier RL Unit D Prepared 49.9 501 mg/Kg Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Result Qualifier RL Unit D Prepared

Gasoline Range Organics	<49.9	U	49.9	mg/Kg	06/09/23 14:05	06/10/23 23:00	1
(GRO)-C6-C10							
Diesel Range Organics (Over	501		49.9	mg/Kg	06/09/23 14:05	06/10/23 23:00	1
C10-C28)							
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg	06/09/23 14:05	06/10/23 23:00	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130		06/09/23 14:05	06/10/23 23:00	1
o-Terphenyl	109		70 - 130		06/09/23 14:05	06/10/23 23:00	1

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95.8		4.95	mg/Kg			06/09/23 15:20	1

Client Sample ID: SS07 Date Collected: 06/07/23 10:10

Date Received: 06/08/23 08:28

Sample Depth: 0.5'

Method: SW846 8021B - Volat	ile Organic Comp	ounds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201	mg/Kg		06/09/23 13:04	06/15/23 15:56	1
Toluene	<0.00201	U *+	0.00201	mg/Kg		06/09/23 13:04	06/15/23 15:56	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		06/09/23 13:04	06/15/23 15:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		06/09/23 13:04	06/15/23 15:56	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		06/09/23 13:04	06/15/23 15:56	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		06/09/23 13:04	06/15/23 15:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130			06/09/23 13:04	06/15/23 15:56	1

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Client Sample Results

Limits

70 - 130

RL

RL

50.0

RL

50.0

50.0

50.0

Limits

70 - 130

70 - 130

0.00402

Unit

Unit

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Job ID: 890-4794-1 SDG: 03D2024198

Client Sample ID: SS07

Date Collected: 06/07/23 10:10 Date Received: 06/08/23 08:28

Sample Depth: 0.5'

1,4-Difluorobenzene (Surr)

Gasoline Range Organics

Diesel Range Organics (Over

Oll Range Organics (Over C28-C36)

Client: Ensolum

Surrogate

Analyte

Analyte

Analyte

C10-C28)

Surrogate

o-Terphenyl

1-Chlorooctane

(GRO)-C6-C10

Total TPH

Total BTEX

Lab Sample ID:	890-4794-7
	Matrix: Solid

Prepared

06/09/23 13:04

Prepared

Prepared

Prepared

06/09/23 14:05

06/09/23 14:05

06/09/23 14:05

Prepared

06/09/23 14:05

06/09/23 14:05

Lab Sample ID: 890-4794-8

Matrix: Solid

D

D

D

Analyzed Dil Fac 06/15/23 15:56 Analyzed Dil Fac 06/16/23 12:59 Analyzed Dil Fac 06/12/23 14:35 1 Analyzed Dil Fac 06/10/23 23:21 06/10/23 23:21 06/10/23 23:21 Analyzed Dil Fac 06/10/23 23:21 06/10/23 23:21 1

Mothod:	EDA 300	nione	Ion Chromate	aranhy -	Solublo

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

Method: TAL SOP Total BTEX - Total BTEX Calculation

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

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

%Recovery Qualifier

Result Qualifier

Result Qualifier

Result Qualifier

<50.0 U

89.9

<50.0 U

%Recovery Qualifier

139 S1+

110

96

<0.00402 U

89.9

Method. EPA 300.0 - Amons, for Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	69.3		4.96	mg/Kg			06/09/23 15:25	1

Client Sample ID: SS08

Date Collected: 06/07/23 10:15 Date Received: 06/08/23 08:28 Sample Depth: 0.5'

Method: SW846 8021B - Volat	ile Organic Comp	ounds (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200	mg/Kg		06/09/23 13:04	06/15/23 16:17	1
Toluene	<0.00200	U *+	0.00200	mg/Kg		06/09/23 13:04	06/15/23 16:17	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/09/23 13:04	06/15/23 16:17	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		06/09/23 13:04	06/15/23 16:17	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/09/23 13:04	06/15/23 16:17	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		06/09/23 13:04	06/15/23 16:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			06/09/23 13:04	06/15/23 16:17	1
1,4-Difluorobenzene (Surr)	95		70 - 130			06/09/23 13:04	06/15/23 16:17	1
Method: TAL SOP Total BTEX	- Total BTEX Cal	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			06/16/23 12:59	1
_ Method: SW846 8015 NM - Die	esel Range Organ	ics (DRO) (GC)					
Analyte	Result		RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			06/12/23 14:35	1

Job ID: 890-4794-1 SDG: 03D2024198

Matrix: Solid

Lab Sample ID: 890-4794-8

Lab Sample ID: 890-4794-9

Matrix: Solid

Client Sample ID: SS08

Date Collected: 06/07/23 10:15 Date Received: 06/08/23 08:28

Sample Depth: 0.5'

Client: Ensolum

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		06/09/23 14:05	06/10/23 23:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		06/09/23 14:05	06/10/23 23:44	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		06/09/23 14:05	06/10/23 23:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130			06/09/23 14:05	06/10/23 23:44	1
o-Terphenyl	98		70 - 130			06/09/23 14:05	06/10/23 23:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.6	5.05	mg/Kg			06/09/23 15:31	1

Client Sample ID: SS09

Date Collected: 06/07/23 10:20

Date Received: 06/08/23 08:28 Sample Depth: 0.5'

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00199	U *+	0.00199	mg/Kg		06/09/23 13:04	06/15/23 16:37	1
Toluene	<0.00199	U *+	0.00199	mg/Kg		06/09/23 13:04	06/15/23 16:37	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		06/09/23 13:04	06/15/23 16:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		06/09/23 13:04	06/15/23 16:37	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		06/09/23 13:04	06/15/23 16:37	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		06/09/23 13:04	06/15/23 16:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130			06/09/23 13:04	06/15/23 16:37	1
1,4-Difluorobenzene (Surr)	114		70 - 130			06/09/23 13:04	06/15/23 16:37	1
Total BTEX Method: SW846 8015 NM - Diese Analyte			0.00398 GC) RL	mg/Kg Unit	D	Prepared	06/16/23 12:59 Analyzed	Dil Fac
Total TPH	375		49.9	mg/Kg			06/12/23 14:35	1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	• •	Qualifier	(GC) <u>RL</u> 49.9 49.9	Unit mg/Kg mg/Kg	<u>D</u>	Prepared 06/09/23 14:05 06/09/23 14:05	Analyzed 06/11/23 00:05 06/11/23 00:05	Dil Fac
C10-C28) Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		06/09/23 14:05	06/11/23 00:05	
Sume note	0/ Decessory		Limite			Dramarad	Analyzad	

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		Client	Sample Res	sults					
Client: EnsolumJob ID: 890-4794-1Project/Site: Red Raider BKS (part 2)SDG: 03D2024198									2
Client Sample ID: SS09 Date Collected: 06/07/23 10:20						Lab Sa	mple ID: 890- Matri	- 4794-9 ix: Solid	
Date Received: 06/08/23 08:28 Sample Depth: 0.5'									4
Method: EPA 300.0 - Anions, Ion Cl Analyte		hy - Soluble Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	5
Chloride	216		5.05	mg/Kg		Freparec	06/09/23 15:36	1	
									8
									9
									13

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Client: Ensolum Project/Site: Red Raider BKS (part 2)

Method: 8021B - Volatile Organic Compounds (GC) Matrix: Solid

		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4794-1	SS01	96	101
890-4794-1 MS	SS01	113	92
890-4794-1 MSD	SS01	112	101
890-4794-2	SS02	87	95
890-4794-3	SS03	90	94
890-4794-4	SS04	101	96
890-4794-5	SS05	89	96
890-4794-6	SS06	102	97
890-4794-7	SS07	85	96
890-4794-8	SS08	98	95
890-4794-9	SS09	100	114
LCS 880-55146/1-A	Lab Control Sample	98	104
LCSD 880-55146/2-A	Lab Control Sample Dup	114	99
MB 880-55146/5-A	Method Blank	94	111
Surrogate Legend			
BFB = 4-Bromofluoroben	zene (Surr)		
DFBZ = 1,4-Difluorobenz			

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

Matrix: Solid

				Per
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	1
880-29311-A-121-C MS	Matrix Spike	99	94	
880-29311-A-121-D MSD	Matrix Spike Duplicate	101	95	
890-4794-1	SS01	94	107	
890-4794-2	SS02	118	130	
890-4794-3	SS03	100	109	
890-4794-4	SS04	85	92	
890-4794-5	SS05	136 S1+	105	
890-4794-5 MS	SS05	139 S1+	100	
890-4794-5 MSD	SS05	132 S1+	92	
890-4794-6	SS06	137 S1+	109	
890-4794-7	SS07	139 S1+	110	
890-4794-8	SS08	125	98	
890-4794-9	SS09	135 S1+	106	
LCS 880-55158/2-A	Lab Control Sample	24 S1-	20 S1-	
LCS 880-55159/2-A	Lab Control Sample	126	98	
LCSD 880-55158/3-A	Lab Control Sample Dup	24 S1-	19 S1-	
LCSD 880-55159/3-A	Lab Control Sample Dup	119	91	
MB 880-55158/1-A	Method Blank	97	118	
MB 880-55159/1-A	Method Blank	0.02 S1-	0.009 S1-	-

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Prep Type: Total/NA

Prep Type: Total/NA

QC Sample Results

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-55146/5-A	
Matrix: Solid	

Analysis Batch: 55553

	МВ	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00200	U	0.00200	mg/Kg		06/09/23 13:04	06/15/23 13:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		06/09/23 13:04	06/15/23 13:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		06/09/23 13:04	06/15/23 13:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		06/09/23 13:04	06/15/23 13:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		06/09/23 13:04	06/15/23 13:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		06/09/23 13:04	06/15/23 13:24	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			06/09/23 13:04	06/15/23 13:24	1
1,4-Difluorobenzene (Surr)	111		70 - 130			06/09/23 13:04	06/15/23 13:24	1

Lab Sample ID: LCS 880-55146/1-A Matrix: Solid

Analysis Batch: 55553

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1292		mg/Kg		129	70 - 130	
Toluene	0.100	0.1280		mg/Kg		128	70 - 130	
Ethylbenzene	0.100	0.1102		mg/Kg		110	70 - 130	
m-Xylene & p-Xylene	0.200	0.1975		mg/Kg		99	70 - 130	
o-Xylene	0.100	0.08973		mg/Kg		90	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-55146/2-A

Matrix: Solid

Analysis Batch: 55553							Prep	Batch:	55146
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1364	*+	mg/Kg		136	70 - 130	5	35
Toluene	0.100	0.1345	*+	mg/Kg		134	70 - 130	5	35
Ethylbenzene	0.100	0.1238		mg/Kg		124	70 - 130	12	35
m-Xylene & p-Xylene	0.200	0.2274		mg/Kg		114	70 - 130	14	35
o-Xylene	0.100	0.1049		mg/Kg		105	70 - 130	16	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-4794-1 MS Matrix: Solid

Analysis Batch: 55553

Analysis Batch: 55553									Prep	Batch: 55146
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U *+ F1	0.0994	0.1241		mg/Kg		125	70 - 130	
Toluene	<0.00202	U *+ F1	0.0994	0.1210		mg/Kg		122	70 - 130	

sbad

Client Sample ID: SS01

Prep Type: Total/NA

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Job ID: 890-4794-1 SDG: 03D2024198

Prep Type: Total/NA

Prep Batch: 55146

Client Sample ID: Method Blank

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

Client Sample ID: Lab Control Sample Dup

Prep Batch: 55146

Prep Type: Total/NA

Eurofins	Carls
MS MS

Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

Result

0.1127

0.2099

0.09963

Spike

Added

0.0994

0.199

0.0994

Limits

70 - 130

70 - 130

Client: Ensolum Project/Site: Red Raider BKS (part 2)

Lab Sample ID: 890-4794-1 MS

Analysis Batch: 55553

4-Bromofluorobenzene (Surr)

Lab Sample ID: 890-4794-1 MSD

1,4-Difluorobenzene (Surr)

Matrix: Solid

Analyte

o-Xylene

Surrogate

Ethylbenzene

m-Xylene & p-Xylene

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

Sample Sample

<0.00202

< 0.00404

%Recovery

<0.00202 U

Result Qualifier

U

U

MS MS

113

92

Qualifier

Job ID: 890-4794-1 SDG: 03D2024198

Client Sample ID: SS01

%Rec

Limits

70 - 130

70 - 130

70 - 130

%Rec

113

106

100

D

Prep Type: Total/NA

Prep Batch: 55146

7

Client Sample ID: SS01
Prep Type: Total/NA
Prop Batch: 55146

Matrix: Solid Analysis Batch: 55553										ype: To Batch:	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U *+ F1	0.0996	0.1514	F1	mg/Kg		152	70 - 130	20	35
Toluene	<0.00202	U *+ F1	0.0996	0.1439	F1	mg/Kg		145	70 - 130	17	35
Ethylbenzene	<0.00202	U	0.0996	0.1176		mg/Kg		118	70 - 130	4	35
m-Xylene & p-Xylene	<0.00404	U	0.199	0.2115		mg/Kg		106	70 - 130	1	35
o-Xylene	<0.00202	U	0.0996	0.1117		mg/Kg		112	70 - 130	11	35
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)			70 - 130								
1,4-Difluorobenzene (Surr)	101		70 - 130								

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

					Client Sa	mple ID: Metho Prep Type: 1 Prep Batch	otal/NA
MB	MB						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<50.0	U	50.0	mg/Kg		06/09/23 14:01	06/12/23 23:24	1
<50.0	U	50.0	mg/Kg		06/09/23 14:01	06/12/23 23:24	1
<50.0	U	50.0	mg/Kg		06/09/23 14:01	06/12/23 23:24	1
MB	МВ						
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
97		70 - 130			06/09/23 14:01	06/12/23 23:24	1
118		70 - 130			06/09/23 14:01	06/12/23 23:24	1
-	Result <50.0	Result Qualifier <50.0	Result Qualifier RL <50.0	Result Qualifier RL Unit <50.0	ResultQualifierRLUnitD<50.0	MB Result Qualifier RL Unit D Prepared <50.0	MB MB Result Qualifier RL Unit D Prepared Analyzed <50.0

Matrix: Solid Prep Type: Total/NA Prep Batch: 55158 Analysis Batch: 55236 LCS LCS Spike %Rec Analyte Added Qualifier Result Unit D %Rec Limits 1000 905.0 90 70 - 130 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 982.0 mg/Kg 98 70 - 130

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C10-C28)

Client: Ensolum Project/Site: Red Raider BKS (part 2)

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

Lab Sample ID: LCS 880-55	158/2-A						Client	Sample	D: Lab Co	ontrol S	ample
Matrix: Solid									Prep T	Type: To	tal/NA
Analysis Batch: 55236									Prep	Batch:	55158
	1.05	LCS									
Surrogate	%Recovery		Limits								
1-Chlorooctane		S1-	70 - 130								
o-Terphenyl		S1-	70 - 130								
	20	0,	101100								
Lab Sample ID: LCSD 880-5	55158/3-A					Clier	nt San	nple ID:	Lab Contro	Sampl	e Dup
Matrix: Solid								•		· Type: To	-
Analysis Batch: 55236										Batch:	
· ····· , · · · · · · · · · · · · · · · · · · ·			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics			1000	890.2		mg/Kg		89	70 - 130	2	20
(GRO)-C6-C10						0.0					
Diesel Range Organics (Over			1000	970.1		mg/Kg		97	70 - 130	1	20
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery		Limits								
1-Chlorooctane		S1-	70 - 130								
o-Terphenyl		S1-	70 - 130								
		•									
Lab Sample ID: 880-29311-4	A-121-C MS							Client	Sample ID	: Matrix	Spike
Matrix: Solid										Type: To	-
Analysis Batch: 55236										Batch:	
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte		Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	<49.9	U	997	1017		mg/Kg		99	70 - 130		
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U	997	1088		mg/Kg		107	70 - 130		
C10-C28)											
	MS	MS									
Surrogate	%Recovery		Limits								
1-Chlorooctane		Quanner	70 - 130								
o-Terphenyl	94		70 - 130								
	04		70 - 700								
Lab Sample ID: 880-29311-4	A-121-D MSD					CI	ient S	ample IC): Matrix Sp	oike Dur	olicate
Matrix: Solid										Type: To	
Analysis Batch: 55236										Batch:	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9		999	1035		mg/Kg		100	70 - 130	2	20
(GRO)-C6-C10						0 0					
Diesel Range Organics (Over	<49.9	U	999	1101		mg/Kg		108	70 - 130	1	20
C10-C28)											
	Men	MSD									
	1130										

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	95		70 - 130

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Job ID: 890-4794-1 SDG: 03D2024198

Client: Ensolum Project/Site: Red Raider BKS (part 2)

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

Lab Sample ID: MB 880-55159/	1_A										Client Sa	mple ID: M	othor	Blank
-	1-A										Chefit Sa			
Matrix: Solid												Prep Ty	-	
Analysis Batch: 55207		мв	MD									PrepE	satch	: 55159
Analysis		MB		ы			11				we we we d	Analyza		
Analyte			Qualifier	RL			Unit		<u>D</u>		repared	Analyze		Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<:	50.0	0	50.0			mg/Kg	9		06/0	9/23 14:05	06/10/23 20	:02	1
Diesel Range Organics (Over	<"	50.0		50.0			mg/Kg	-		06/0	9/23 14:05	06/10/23 20	02	1
C10-C28)		00.0	0	00.0			ing/ite	9		00/0	0/20 11.00	00/10/20 20	.02	
Oll Range Organics (Over C28-C36)	<5	50.0	U	50.0			mg/Kg	g		06/0	9/23 14:05	06/10/23 20	:02	1
		MВ												
Surrogate			Qualifier	Limits							repared	Analyze		Dil Fac
1-Chlorooctane		0.02		70 - 130							9/23 14:05	06/10/23 20		1
o-Terphenyl	0.	009	S1-	70 - 130						06/0	9/23 14:05	06/10/23 20):02	1
Lab Sample ID: LCS 880-55159	N/2_A								~	lion	Sample	ID: Lab Cor	trol 9	Sampla
Matrix: Solid	1/2- R								U	nem	Sample	Prep Ty		
													-	
Analysis Batch: 55207				Califo	1.00	LCS						%Rec	batch	: 55159
Analysis				Spike			f lar	11		-	0/ Dee			
Analyte				Added	Result	Quali	ner	Unit			93	Limits		
Gasoline Range Organics (GRO)-C6-C10				1000	928.0			mg/Kg			93	70 - 130		
Diesel Range Organics (Over				1000	877.0			mg/Kg			88	70 - 130		
C10-C28)								5.5						
	LCS													
Surrogate	%Recovery	Quai	itier	Limits										
1-Chlorooctane	126			70 ₋ 130										
o-Terphenyl	98			70 - 130										
Lab Sample ID: LCSD 880-551	59/3-4							CI	ient	Sam	nle ID: L	ab Control	Samr	le Dun
Matrix: Solid										oun		Prep Ty		
Analysis Batch: 55207													-	: 55159
Analysis Datch. 35207				Spike		LCSD	,					%Rec	Jaton	RPD
Analyte				Added	Result			Unit		D	%Rec	Limits	RPD	Limit
Gasoline Range Organics				1000	915.1	quui		mg/Kg			92	70 - 130	1	20
(GRO)-C6-C10				1000	010.1			mg/rtg			02	101100		20
Diesel Range Organics (Over				1000	906.0			mg/Kg			91	70 - 130	3	20
C10-C28)														
	LCSD	1001	- -											
Surrogate	%Recovery			Limits										
1-Chlorooctane	56 119	Qual		70 - 130										
o-Terphenyl	91			70 - 130 70 - 130										
	91			10 - 130										
												Client Sam	nle IF)· SS05
Matrix: Solid												Prep Ty		
Analysis Batch: 55207													-	: 55159
Analysis Baton. 00201	Sample	Same	ole	Spike	MS	MS						%Rec		
Analyte	Result			Added	Result		fier	Unit		D	%Rec	Limits		
Gasoline Range Organics	<49.9			998	1241	quull		mg/Kg			121	70 - 130		
(GRO)-C6-C10		2			1271						121	100		
				000	057.0						00	70 400		

Job ID: 890-4794-1 SDG: 03D2024198

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70 - 130

90

55.5

Diesel Range Organics (Over

C10-C28)

957.0

mg/Kg

Client: Ensolum Project/Site: Red Raider BKS (part 2)

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

Lab Sample ID: 890-4794-5 MS	
Matrix: Solid	
Analysis Batch: 55207	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	139	S1+	70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-4794-5 MSD Matrix: Solid

Matrix: Solid Analysis Batch: 55207										ype: To Batch:	
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1148		mg/Kg		112	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	55.5		999	900.3		mg/Kg		85	70 - 130	6	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	132	S1+	70 - 130								
o-Terphenyl	92		70 - 130								

Method: 300.0 - Anions, Ion Ch	romatog	raphy										
Lab Sample ID: MB 880-55047/1-A									Client S	Sample ID: Me	thod	Blank
Matrix: Solid										· Prep Ty		
Analysis Batch: 55167												
	MB	MB										
Analyte	Result	Qualifier		RL		Unit		D	Prepared	Analyzed		Dil Fac
Chloride	<5.00	U		5.00		mg/K	g			06/09/23 14:	16	1
Lab Sample ID: LCS 880-55047/2-A								Clier	nt Sample	e ID: Lab Con	trol S	ample
Matrix: Solid										Prep Ty	pe: S	oluble
Analysis Batch: 55167												
			Spike		LCS	LCS				%Rec		
Analyte			Added		Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			250		255.1		mg/Kg		102	90 - 110		
Lab Sample ID: LCSD 880-55047/3-A	\						CI	ient Sa	mple ID:	Lab Control S	Sampl	le Dup
Matrix: Solid										Prep Ty	pe: S	oluble
Analysis Batch: 55167												
			Spike		LCSD	LCSD				%Rec		RPD
Analyte			Added		Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250		260.5		mg/Kg		104	90 _ 110	2	20
Lab Sample ID: 890-4794-1 MS										Client Samp	ole ID:	: SS01
Matrix: Solid										Prep Ty	pe: S	oluble
Analysis Batch: 55167												
	Sample Sar	nple	Spike		MS	MS				%Rec		

Job ID: 890-4794-1

SDG: 03D2024198

Client Sample ID: SS05 Prep Type: Total/NA Prep Batch: 55159

Client Sample ID: SS05

Client: Ensolum Project/Site: Red Raider BKS (part 2) Job ID: 890-4794-1 SDG: 03D2024198

Method: 300.0 - Anions, Ion Chromatography (Continued)

ab Sample ID: 890-4794-1 MSI latrix: Solid)								Client Sar Prep	nple ID: Type: So		
nalysis Batch: 55167		Sample	Spike		MSD				%Rec		RPD	
nalyte		Qualifier	Added		Qualifier	Unit	<u>D</u>	%Rec	Limits	RPD	Limit	
loride	91.9	F1	249	292.7	F1	mg/Kg		81	90 - 110	2	20	
												j

QC Association Summary

Client: Ensolum Project/Site: Red Raider BKS (part 2)

5 6

Job ID: 890-4794-1 SDG: 03D2024198

GC VOA

Prep Batch: 55146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4794-1	SS01	Total/NA	Solid	5035	
890-4794-2	SS02	Total/NA	Solid	5035	
890-4794-3	SS03	Total/NA	Solid	5035	
890-4794-4	SS04	Total/NA	Solid	5035	
890-4794-5	SS05	Total/NA	Solid	5035	
890-4794-6	SS06	Total/NA	Solid	5035	
890-4794-7	SS07	Total/NA	Solid	5035	
890-4794-8	SS08	Total/NA	Solid	5035	
890-4794-9	SS09	Total/NA	Solid	5035	
MB 880-55146/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-55146/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-55146/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4794-1 MS	SS01	Total/NA	Solid	5035	
890-4794-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 55553

890-4794-7	SS07	Total/NA	Solid	5035		
890-4794-8	SS08	Total/NA	Solid	5035		8
890-4794-9	SS09	Total/NA	Solid	5035		
MB 880-55146/5-A	Method Blank	Total/NA	Solid	5035		9
LCS 880-55146/1-A	Lab Control Sample	Total/NA	Solid	5035		
LCSD 880-55146/2-A	Lab Control Sample Dup	Total/NA	Solid	5035		
890-4794-1 MS	SS01	Total/NA	Solid	5035		
890-4794-1 MSD	SS01	Total/NA	Solid	5035		
nalysis Batch: 55553						
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-4794-1	SS01	Total/NA	Solid	8021B	55146	
890-4794-2	SS02	Total/NA	Solid	8021B	55146	
890-4794-3	SS03	Total/NA	Solid	8021B	55146	
890-4794-4	SS04	Total/NA	Solid	8021B	55146	
390-4794-5	SS05	Total/NA	Solid	8021B	55146	
390-4794-6	SS06	Total/NA	Solid	8021B	55146	
390-4794-7	SS07	Total/NA	Solid	8021B	55146	
390-4794-8	SS08	Total/NA	Solid	8021B	55146	
390-4794-9	SS09	Total/NA	Solid	8021B	55146	
MB 880-55146/5-A	Method Blank	Total/NA	Solid	8021B	55146	
_CS 880-55146/1-A	Lab Control Sample	Total/NA	Solid	8021B	55146	
LCSD 880-55146/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	55146	
890-4794-1 MS	SS01	Total/NA	Solid	8021B	55146	
890-4794-1 MSD	SS01	Total/NA	Solid	8021B	55146	

Analysis Batch: 55688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-4794-1	SS01	Total/NA	Solid	Total BTEX	
890-4794-2	SS02	Total/NA	Solid	Total BTEX	
890-4794-3	SS03	Total/NA	Solid	Total BTEX	
890-4794-4	SS04	Total/NA	Solid	Total BTEX	
890-4794-5	SS05	Total/NA	Solid	Total BTEX	
890-4794-6	SS06	Total/NA	Solid	Total BTEX	
390-4794-7	SS07	Total/NA	Solid	Total BTEX	
390-4794-8	SS08	Total/NA	Solid	Total BTEX	
890-4794-9	SS09	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 55158

Lab Sample ID 890-4794-1	Client Sample ID SS01	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
890-4794-2	SS02	Total/NA	Solid	8015NM Prep	
890-4794-3	SS03	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum Project/Site: Red Raider BKS (part 2)

GC Semi VOA (Continued)

Prep Batch: 55158 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method
890-4794-4	SS04	Total/NA	Solid	8015NM Prep
MB 880-55158/1-A	Method Blank	Total/NA	Solid	8015NM Prep
LCS 880-55158/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep
LCSD 880-55158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep
880-29311-A-121-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep
880-29311-A-121-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep
Prep Batch: 55159				
Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method
890-4794-5	SS05	Total/NA	Solid	8015NM Prep

890-4794-5	5505	Iotal/NA	Solid	8015NM Prep	
890-4794-6	SS06	Total/NA	Solid	8015NM Prep	
890-4794-7	SS07	Total/NA	Solid	8015NM Prep	
890-4794-8	SS08	Total/NA	Solid	8015NM Prep	
890-4794-9	SS09	Total/NA	Solid	8015NM Prep	
MB 880-55159/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-55159/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-55159/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4794-5 MS	SS05	Total/NA	Solid	8015NM Prep	
890-4794-5 MSD	SS05	Total/NA	Solid	8015NM Prep	

Analysis Batch: 55207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4794-5	SS05	Total/NA	Solid	8015B NM	55159
890-4794-6	SS06	Total/NA	Solid	8015B NM	55159
890-4794-7	SS07	Total/NA	Solid	8015B NM	55159
890-4794-8	SS08	Total/NA	Solid	8015B NM	55159
890-4794-9	SS09	Total/NA	Solid	8015B NM	55159
MB 880-55159/1-A	Method Blank	Total/NA	Solid	8015B NM	55159
LCS 880-55159/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	55159
LCSD 880-55159/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	55159
890-4794-5 MS	SS05	Total/NA	Solid	8015B NM	55159
890-4794-5 MSD	SS05	Total/NA	Solid	8015B NM	55159

Analysis Batch: 55236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4794-1	SS01	Total/NA	Solid	8015B NM	55158
890-4794-2	SS02	Total/NA	Solid	8015B NM	55158
890-4794-3	SS03	Total/NA	Solid	8015B NM	55158
890-4794-4	SS04	Total/NA	Solid	8015B NM	55158
MB 880-55158/1-A	Method Blank	Total/NA	Solid	8015B NM	55158
LCS 880-55158/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	55158
LCSD 880-55158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	55158
880-29311-A-121-C MS	Matrix Spike	Total/NA	Solid	8015B NM	55158
880-29311-A-121-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	55158

Analysis Batch: 55334

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4794-1	SS01	Total/NA	Solid	8015 NM	
890-4794-2	SS02	Total/NA	Solid	8015 NM	
890-4794-3	SS03	Total/NA	Solid	8015 NM	
890-4794-4	SS04	Total/NA	Solid	8015 NM	

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Prep Batch

Prep Batch

SDG: 03D2024198

QC Association Summary

Client: Ensolum Project/Site: Red Raider BKS (part 2)

GC Semi VOA (Continued)

Analysis Batch: 55334 (Continued)

Lab Sample ID 890-4794-5	Client Sample ID SS05	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
890-4794-6	SS06	Total/NA	Solid	8015 NM	
890-4794-7	SS07	Total/NA	Solid	8015 NM	
890-4794-8	SS08	Total/NA	Solid	8015 NM	
890-4794-9	SS09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 55047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4794-1	SS01	Soluble	Solid	DI Leach	
890-4794-2	SS02	Soluble	Solid	DI Leach	
890-4794-3	SS03	Soluble	Solid	DI Leach	
890-4794-4	SS04	Soluble	Solid	DI Leach	
890-4794-5	SS05	Soluble	Solid	DI Leach	
890-4794-6	SS06	Soluble	Solid	DI Leach	
890-4794-7	SS07	Soluble	Solid	DI Leach	
890-4794-8	SS08	Soluble	Solid	DI Leach	
890-4794-9	SS09	Soluble	Solid	DI Leach	
MB 880-55047/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-55047/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-55047/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4794-1 MS	SS01	Soluble	Solid	DI Leach	
890-4794-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 55167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4794-1	SS01	Soluble	Solid	300.0	55047
890-4794-2	SS02	Soluble	Solid	300.0	55047
890-4794-3	SS03	Soluble	Solid	300.0	55047
890-4794-4	SS04	Soluble	Solid	300.0	55047
890-4794-5	SS05	Soluble	Solid	300.0	55047
890-4794-6	SS06	Soluble	Solid	300.0	55047
890-4794-7	SS07	Soluble	Solid	300.0	55047
890-4794-8	SS08	Soluble	Solid	300.0	55047
890-4794-9	SS09	Soluble	Solid	300.0	55047
MB 880-55047/1-A	Method Blank	Soluble	Solid	300.0	55047
LCS 880-55047/2-A	Lab Control Sample	Soluble	Solid	300.0	55047
LCSD 880-55047/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	55047
890-4794-1 MS	SS01	Soluble	Solid	300.0	55047
890-4794-1 MSD	SS01	Soluble	Solid	300.0	55047

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Job ID: 890-4794-1 SDG: 03D2024198

Project/Site: Red Raider BKS (part 2)

Job ID: 890-4794-1 SDG: 03D2024198

Lab Sample ID: 890-4794-1 Matrix: Solid

Date Collected: 06/07/23 09:40 Date Received: 06/08/23 08:28

Client Sample ID: SS01

Client: Ensolum

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	55146	06/09/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55553	06/15/23 13:53	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55688	06/16/23 12:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55334	06/13/23 12:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	55158	06/09/23 14:01	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55236	06/13/23 05:52	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	55047	06/08/23 14:20	KS	EET MID
Soluble	Analysis	300.0		1			55167	06/09/23 14:32	СН	EET MID

Client Sample ID: SS02

Date Collected: 06/07/23 09:45

Date Received: 06/08/23 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	55146	06/09/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55553	06/15/23 14:13	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55688	06/16/23 12:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55334	06/13/23 12:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	55158	06/09/23 14:01	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55236	06/13/23 06:12	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	55047	06/08/23 14:20	KS	EET MID
Soluble	Analysis	300.0		1			55167	06/09/23 14:48	СН	EET MID

Client Sample ID: SS03

Date Collected: 06/07/23 09:50

Date Received: 06/08/23 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	55146	06/09/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55553	06/15/23 14:34	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55688	06/16/23 12:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55334	06/13/23 12:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	55158	06/09/23 14:01	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55236	06/13/23 06:34	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	55047	06/08/23 14:20	KS	EET MID
Soluble	Analysis	300.0		1			55167	06/09/23 14:53	CH	EET MID

Client Sample ID: SS04 Date Collected: 06/07/23 09:55 Date Received: 06/08/23 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	55146	06/09/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55553	06/15/23 14:54	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55688	06/16/23 12:59	AJ	EET MID

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Matrix: Solid

5

9

Lab Sample ID: 890-4794-2

Lab Sample ID: 890-4794-3

Lab Sample ID: 890-4794-4

Matrix: Solid

Matrix: Solid

Project/Site: Red Raider BKS (part 2)

Job ID: 890-4794-1 SDG: 03D2024198

Lab Sample ID: 890-4794-4 Matrix: Solid

Lab Sample ID: 890-4794-5

Lab Sample ID: 890-4794-6

Lab Sample ID: 890-4794-7

Matrix: Solid

Matrix: Solid

Matrix: Solid

Date Collected: 06/07/23 09:55 Date Received: 06/08/23 08:28

Client Sample ID: SS04

Client: Ensolum

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			55334	06/13/23 12:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	55158	06/09/23 14:01	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55236	06/13/23 06:57	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	55047	06/08/23 14:20	KS	EET MID
Soluble	Analysis	300.0		1			55167	06/09/23 14:59	СН	EET MID

Client Sample ID: SS05 Date Collected: 06/07/23 10:00

Date Received: 06/08/23 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	55146	06/09/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55553	06/15/23 15:15	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55688	06/16/23 12:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55334	06/12/23 14:35	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	55159	06/09/23 14:05	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55207	06/10/23 21:55	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	55047	06/08/23 14:20	KS	EET MID
Soluble	Analysis	300.0		1			55167	06/09/23 15:04	CH	EET MID

Client Sample ID: SS06

Date Collected: 06/07/23 10:05 Date Received: 06/08/23 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	55146	06/09/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55553	06/15/23 15:35	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55688	06/16/23 12:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55334	06/12/23 14:35	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	55159	06/09/23 14:05	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55207	06/10/23 23:00	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	55047	06/08/23 14:20	KS	EET MID
Soluble	Analysis	300.0		1			55167	06/09/23 15:20	СН	EET MID

Client Sample ID: SS07

Date Collected: 06/07/23 10:10 Date Received: 06/08/23 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	55146	06/09/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55553	06/15/23 15:56	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55688	06/16/23 12:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55334	06/12/23 14:35	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	55159	06/09/23 14:05	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55207	06/10/23 23:21	AJ	EET MID

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9 10 11

Lab Chronicle

Job ID: 890-4794-1 SDG: 03D2024198

Matrix: Solid

Matrix: Solid

Matrix: Solid

9

Lab Sample ID: 890-4794-7

Lab Sample ID: 890-4794-8

Lab Sample ID: 890-4794-9

Client Sample ID: SS07 Date Collected: 06/07/23 10:10

Project/Site: Red Raider BKS (part 2)

Client: Ensolum

Date Received: 06/08/23 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	55047	06/08/23 14:20	KS	EET MID
Soluble	Analysis	300.0		1			55167	06/09/23 15:25	CH	EET MID

Client Sample ID: SS08

Date Collected: 06/07/23 10:15 Date Received: 06/08/23 08:28

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	55146	06/09/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55553	06/15/23 16:17	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55688	06/16/23 12:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55334	06/12/23 14:35	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	55159	06/09/23 14:05	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55207	06/10/23 23:44	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	55047	06/08/23 14:20	KS	EET MID
Soluble	Analysis	300.0		1			55167	06/09/23 15:31	СН	EET MID

Client Sample ID: SS09 Date Collected: 06/07/23 10:20 Date Received: 06/08/23 08:28

Dil Initial Final Batch Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 5.03 g 5 mL 55146 06/09/23 13:04 EL EET MID 8021B Total/NA 5 mL 5 mL 55553 06/15/23 16:37 EET MID Analysis 1 AJ Total/NA Analysis Total BTEX 1 55688 06/16/23 12:59 AJ EET MID Total/NA Analysis 8015 NM 1 55334 06/12/23 14:35 AJ EET MID 8015NM Prep Total/NA Prep 10.02 g 10 mL 55159 06/09/23 14:05 AJ EET MID Total/NA EET MID Analysis 8015B NM 1 1 uL 1 uL 55207 06/11/23 00:05 AJ Soluble Leach DI Leach 4.95 g 50 mL 55047 06/08/23 14:20 KS EET MID Soluble Analysis 300.0 1 55167 06/09/23 15:36 СН EET MID

Laboratory References:

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

Accreditation/Certification Summary

	Α	ccreditation/C	ertification Summary		
Client: Ensolum Project/Site: Red Raide	er BKS (part 2)			Job ID: 890-4794-1 SDG: 03D2024198	2
Laboratory: Eurofi					
Unless otherwise noted, all a	nalytes for this laboratory wer	e covered under each acc	reditation/certification below.		
Authority		gram	Identification Number	Expiration Date	
Texas	NE	LAP	T104704400-22-25	06-30-23	
The following analytes	are included in this report but	the laboratory is not certif	ied by the governing authority. This list ma	av include analytes for which	5
the agency does not off					
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM	· ·	Solid	Total TPH		
Total BTEX		Solid	Total BTEX		
					8
					9
					10
					13

Project/Site: Red Raider BKS (part 2)

Client: Ensolum

Job ID: 890-4794-1 SDG: 03D2024198

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 Refe	rences:		
ASTM = AS	STM International		
FPA = US	Environmental Protection Agency		

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: Ensolum Project/Site: Red Raider BKS (part 2)

Lab Sample ID 890-4794-1 890-4794-2

890-4794-3 890-4794-4 890-4794-5 890-4794-6 890-4794-7

890-4794-8

890-4794-9

Client Sample ID	Matrix	Collected	Received	Depth	
SS01	Solid	06/07/23 09:40	06/08/23 08:28	0.5'	
SS02	Solid	06/07/23 09:45	06/08/23 08:28	0.5'	
SS03	Solid	06/07/23 09:50	06/08/23 08:28	0.5'	5
SS04	Solid	06/07/23 09:55	06/08/23 08:28	0.5'	J
SS05	Solid	06/07/23 10:00	06/08/23 08:28	0.5'	
SS06	Solid	06/07/23 10:05	06/08/23 08:28	0.5'	
SS07	Solid	06/07/23 10:10	06/08/23 08:28	0.5'	
SS08	Solid	06/07/23 10:15	06/08/23 08:28	0.5'	
SS09	Solid	06/07/23 10:20	06/08/23 08:28	0.5'	8
					9
					12
					13

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SDG: 03D2024198

Received by OCD: 8/22/2023 10:19:41 AM

Environment Testing

Xenco

6/16/2023

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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	v.xenc	o.com	<u>Page</u>		of	
Project Manager:	Hadli	e Green				Bill to: (if	0: (if different) Kalei Jennings					Work Order Comments Program: UST/PST PRP Brownfields RRC Superfund													
Company Name:	Enso	lum LLC	;			Compan	y Name	e:	Enso	um LL	С					Pro	gram:	UST/P	ST 🗌	PRP	Brow	nfields 🗌	RRC	Superfu	nd [
Address:	3122	Nationa	I Parks H	lwy		Address									_		e of Pi	-							
City, State ZIP:		bad, NN				City, Sta	te ZIP:														D PS				
Phone:	432-5	557-889	5		Email:	hgreen		lum.co	om, kj	enning	as@ei	nsolum.c	om			Deli	rable	s: ED	D 🗌]	ADaPT Other:				
				0)				T						LYSIS	DEC	ILES	т					Pre	serva	ative Code	
Project Name:			KS (Part	2)	✓ Routine	Around Rush		Pres.		1			AITA		NL	1	·	T	1	T	T	None: N		DI Water	
Project Number:	-	2024198						Code					-	+ +			+	+	1			Cool: Co		MeOH: N	
Project Location:		366, -103			Due Date:	5 D		4														HCL: HC		HNO3: H	
Sampler's Name: Cost Center #:	Ronn	i Hayes			TAT starts the the lab, if red			0											H_2SO_4 : H_2 NaOH: Na						
SAMPLE RECE	IDT	Tomm	Biank:	Yes No	Wet Ice:	Res	No	Parameters													H ₃ PO ₄ : H	ΗP			
Samples Received		Yes		Thermomet	1		<u>กค~7</u>	am	0.00					100 0000								NaHSO	: NAB	IS	
Cooler Custody Sea			NO NTA	Correction F		TAM	1.2	Par	A: 3									1		Na ₂ S ₂ O ₃ : NaSO ₃					
Sample Custody Se			NO NIA	Temperatur		2			E E										1		Zn Aceta	ate+Na	OH: Zn		
Total Containers:			0		emperature:	2	.4		B			890	4704					•	1		1	NaOH+A	Ascorb	ic Acid: SAP	C
Sample Ide	ntificat	tion	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp		CHLORIDES (EPA: 300.0)	НН	втех		4794 Ch	ain of C	usto	dy						Sa	mple	Comment	;
SS	01		S	6/7/2023	940	0.5	Grab	1	X	X	X						1	1							
SS			S	6/7/2023		0.5	Grab	1	X	X	X														
SS			S	6/7/2023		0.5	Grab	1	X	X	X														
SS	04		S	6/7/2023		0.5	Grab	1	X	X	X									_					
SS			S	6/7/2023	1000	0.5	Grab	1	X	X	X														_
SS			S	6/7/2023	1005	0.5	Grab	1	X	X	X														
SS			S	6/7/2023	1010	0.5	Grab	1	X	X	X														_
SS	08		S	6/7/2023	1015	0.5	Grab	1	X	X	X		1												
SS	09		S	6/7/2023	1020	0.5	Grab	1	X	X	X														
Total 200.7 / 6 Circle Method(s) a	and Me		be analy	zed	RCRA 13	PLP 601	0: 8R	CRA	Sb A	As Ba	Be (Cd Cr C	o Cu P	b Mn I	Mo	Ni Se	e Ag	TIU		Hg:	1631	Na Sr Tl /245.1/	Sn L 7470	J V Zn /7471	
Notice: Signature of this of service. Eurofins Xer of Eurofins Xenco. A mi		a liable and		at of complex a	nd chall not are	uma anu ra	enoneihi	ility for a	ny loss	es or ex	nenses	incurred by	the client i	if such los	ses a	re due	to circu	mstance	s beyor	nd the co	ontrol	1.			_
Relinquished b	v: (Sia	nature)	T	Receive	d by: (Signa	ature)			Date	/Time		Relin	quished	by: (Sig	gnat	ure)		Rec	eived	by: (S	Signati	ure)		Date/Time	
Ander			An	rand	la Si	tit	_	6/8	2/2	3	08:	13													
3			1									4	_								_				
												6											Dawing d D	ate: 08/25/2020 R	0.00

Job Number: 890-4794-1 SDG Number: 03D2024198

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4794 List Number: 1 Creator: Stutzman, Amanda

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: Ensolum

Login Number: 4794 List Number: 2 Creator: Rodriguez, Leticia

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	N/A	

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

14

Job Number: 890-4794-1 SDG Number: 03D2024198

List Source: Eurofins Midland List Creation: 06/09/23 10:21 AM

Received by OCD: 8/22/2023 10:19:11 AM



Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green Ensolum 601 N. Marienfeld St. Suite 400 Midland, Texas 79701 Generated 7/14/2023 11:39:33 AM

JOB DESCRIPTION

Red Raider BKS State Com 001 SDG NUMBER 03D2024198

JOB NUMBER

890-4903-1

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

AMER

Generated 7/14/2023 11:39:33 AM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Laboratory Job ID: 890-4903-1 SDG: 03D2024198

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DL, RA, RE, IN

DLC EDL

LOD

LOQ

MCL

MDA

MDC

MDL

MPN MQL

NC

ND

NEG

POS

PQL PRES

QC

RER

RPD

TEF

TEQ

TNTC

RL

ML

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	Definitions/Glossary		
Client: Ensolur		Job ID: 890-4903-1	
Project/Site: R	ed Raider BKS State Com 001	SDG: 03D2024198	
Qualifiers			
GC VOA			
Qualifier	Qualifier Description		
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		
F1	MS and/or MSD recovery exceeds control limits.		
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		1
DER	Duplicate Error Ratio (normalized absolute difference)		
Dil Fac	Dilution Factor		
DL	Detection Limit (DoD/DOE)		

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Decision Level Concentration (Radiochemistry)

EPA recommended "Maximum Contaminant Level"

Minimum Detectable Concentration (Radiochemistry)

Not Detected at the reporting limit (or MDL or EDL if shown)

Minimum Detectable Activity (Radiochemistry)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Method Detection Limit

Minimum Level (Dioxin) Most Probable Number

Method Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Not Calculated

Negative / Absent

Positive / Present Practical Quantitation Limit

Presumptive

Quality Control

Limit of Quantitation (DoD/DOE)

Job ID: 890-4903-1 SDG: 03D2024198

Job ID: 890-4903-1

Client: Ensolum

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4903-1

Receipt

The samples were received on 7/6/2023 1:51 PM. 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 3.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: FS01 (890-4903-1), FS02 (890-4903-2), FS03 (890-4903-3), FS04 (890-4903-4), FS05 (890-4903-5), FS06 (890-4903-6), FS07 (890-4903-7), FS08 (890-4903-8), FS09 (890-4903-9), FS10 (890-4903-10), SS05A (890-4903-11), SS07A (890-4903-12), SS08A (890-4903-13), SS10 (890-4903-14) and SS10A (890-4903-15).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-30536-A-1-D). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-57380 recovered above the upper control limit for Toluene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-57380/20).

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 880-57313 and analytical batch 880-57440 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-57440/20) and (CCV 880-57440/5). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4911-A-21-D) and (890-4911-A-21-E MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS01 (890-4903-1), FS02 (890-4903-2), FS03 (890-4903-3), FS04 (890-4903-4) and FS05 (890-4903-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-57313 and analytical batch 880-57440 contained OII Range Organics (Over C28-C36) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-4903-A-6-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS08 (890-4903-8), FS09 (890-4903-9), FS10 (890-4903-10), SS05A (890-4903-11), SS07A (890-4903-12), SS08A (890-4903-13) and SS10 (890-4903-14). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-57559 and analytical batch 880-57551 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.

Client: Ensolum Project/Site: Red Raider BKS State Com 001

Job ID: 890-4903-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-57291 and analytical batch 880-57417 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. The associated samples are: FS07 (890-4903-7), FS08 (890-4903-8), FS09 (890-4903-9), FS10 (890-4903-10), SS05A (890-4903-11), SS07A (890-4903-12), SS08A (890-4903-13), SS10 (890-4903-14), SS10A (890-4903-15), (890-4903-A-7-B MS) and (890-4903-A-7-C MSD).

Case Narrative

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

Job ID: 890-4903-1 SDG: 03D2024198

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Job ID: 890-4903-1 SDG: 03D2024198

Lab Sample ID: 890-4903-1

Client Sample ID: FS01

Date Collected: 07/06/23 09:40 Date Received: 07/06/23 13:51

Sample Depth: 1.0'

Client: Ensolum

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 01:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 01:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 01:43	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/11/23 10:06	07/12/23 01:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 01:43	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/11/23 10:06	07/12/23 01:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			07/11/23 10:06	07/12/23 01:43	1
1,4-Difluorobenzene (Surr)	110		70 - 130			07/11/23 10:06	07/12/23 01:43	1
Method: TAL SOP Total BTEX - 1	Total BTEX Calo	culation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			07/12/23 10:21	1
Analyte	Result	Qualifier		Unit ma/Ka	D	Prepared	Analyzed	-
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	Result <49.7	Qualifier U	RL 49.7	Unit mg/Kg	<u> </u>	Prepared	Analyzed 07/13/23 13:02	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <49.7	Qualifier U	RL 49.7		<u>D</u> 	Prepared		1
Analyte	Result <49.7	Qualifier U Anics (DRO) Qualifier	(GC)	mg/Kg			07/13/23 13:02	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.7 sel Range Orga Result	Qualifier U anics (DRO) Qualifier U	(GC) RL	mg/Kg Unit		Prepared	07/13/23 13:02 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.7 sel Range Orga Result <49.7	Qualifier U Qualifier Qualifier U U	RL 49.7 (GC) RL 49.7	mg/Kg Unit mg/Kg		Prepared 07/10/23 13:23	07/13/23 13:02 Analyzed 07/12/23 17:27	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <49.7	Qualifier U Qualifier U Qualifier U U U	RL 49.7 (GC) RL 49.7 49.7	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/10/23 13:23 07/10/23 13:23	07/13/23 13:02 Analyzed 07/12/23 17:27 07/12/23 17:27	1 Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.7	Qualifier U Qualifier U Qualifier U U U U	RL 49.7 (GC) RL 49.7 49.7 49.7 49.7	mg/Kg Unit mg/Kg mg/Kg mg/Kg		Prepared 07/10/23 13:23 07/10/23 13:23 07/10/23 13:23	07/13/23 13:02 Analyzed 07/12/23 17:27 07/12/23 17:27 07/12/23 17:27	
Analyte Total TPH Method: SW846 8015B NM - Die: Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate	Result <49.7	Qualifier U Qualifier U Qualifier U U U U	RL 49.7 (GC) RL 49.7 49.7 49.7 49.7 49.7 49.7	mg/Kg Unit mg/Kg mg/Kg mg/Kg		Prepared 07/10/23 13:23 07/10/23 13:23 07/10/23 13:23 07/10/23 13:23	07/13/23 13:02 Analyzed 07/12/23 17:27 07/12/23 17:27 07/12/23 17:27 07/12/23 17:27	1 Dil Fac 1 1 1 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane	Result <49.7	Qualifier U Qualifier U Qualifier U U U U	RL 49.7 (GC) RL 49.7 49.7 49.7 49.7 Limits	mg/Kg Unit mg/Kg mg/Kg mg/Kg		Prepared 07/10/23 13:23 07/10/23 13:23 07/10/23 13:23 07/10/23 13:23 Prepared	07/13/23 13:02 Analyzed 07/12/23 17:27 07/12/23 17:27 07/12/23 17:27 07/12/23 17:27 Analyzed	Dil Fac 1 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH	Result <49.7	Qualifier U Qualifier U U U U Qualifier S1+	RL 49.7 (GC) RL 49.7 49.7 49.7 49.7 49.7 70.7 1000000000000000000000000000000000000	mg/Kg Unit mg/Kg mg/Kg mg/Kg		Prepared 07/10/23 13:23 07/10/23 13:23 07/10/23 13:23 07/10/23 13:23 Prepared 07/10/23 13:23	07/13/23 13:02 Analyzed 07/12/23 17:27 07/12/23 17:27 07/12/23 17:27 07/12/23 17:27 Analyzed 07/12/23 17:27	1 Dil Fac 1 1 1 1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) DII Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane p-Terphenyl	Result <49.7	Qualifier U Qualifier U U U U Qualifier S1+	RL 49.7 (GC) RL 49.7 49.7 49.7 49.7 49.7 70.7 1000000000000000000000000000000000000	mg/Kg Unit mg/Kg mg/Kg mg/Kg		Prepared 07/10/23 13:23 07/10/23 13:23 07/10/23 13:23 07/10/23 13:23 Prepared 07/10/23 13:23	07/13/23 13:02 Analyzed 07/12/23 17:27 07/12/23 17:27 07/12/23 17:27 07/12/23 17:27 Analyzed 07/12/23 17:27	1 Dil Fac 1 1 1 1

Client Sample ID: FS02

Date Collected: 07/06/23 09:45 Date Received: 07/06/23 13:51

Sample Depth: 1.0'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		07/11/23 10:06	07/12/23 02:03	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/11/23 10:06	07/12/23 02:03	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/11/23 10:06	07/12/23 02:03	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		07/11/23 10:06	07/12/23 02:03	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/11/23 10:06	07/12/23 02:03	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		07/11/23 10:06	07/12/23 02:03	1

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Matrix: Solid

5

Lab Sample ID: 890-4903-2

Matrix: Solid

Client: Ensolum

5

Client Sample Results

Job ID: 890-4903-1 SDG: 03D2024198

Project/Site: Red Raider BKS State Com 001 Client Sample ID: FS02 Lab Sample ID: 890-4903-2 Date Collected: 07/06/23 09:45 Matrix: Solid Date Received: 07/06/23 13:51 Sample Depth: 1.0' Qualifier Dil Fac Surrogate %Recovery Limits Prepared Analyzed 105 70 - 130 07/11/23 10:06 07/12/23 02:03 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 106 70 - 130 07/11/23 10:06 07/12/23 02:03 Method: TAL SOP Total BTEX - Total BTEX Calculation Analyte Result Qualifier RL Unit D Analyzed Dil Fac Prepared Total BTEX <0.00397 U 0.00397 07/12/23 10:21 mg/Kg Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Total TPH <49.5 U 49.5 mg/Kg 07/13/23 13:02 1 Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analyte **Result Qualifier** RL Unit D Prepared Analyzed Dil Fac Gasoline Range Organics <49.5 U 07/10/23 13:23 07/12/23 17:50 49.5 mg/Kg (GRO)-C6-C10 <49.5 U 49.5 mg/Kg 07/10/23 13:23 07/12/23 17:50 **Diesel Range Organics (Over** C10-C28) 07/10/23 13:23 Oll Range Organics (Over C28-C36) <49.5 U 49.5 mg/Kg 07/12/23 17:50 Total TPH 07/10/23 13:23 07/12/23 17:50 <49.5 U 49.5 mg/Kg Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 70 - 130 1-Chlorooctane 114 07/10/23 13:23 07/12/23 17:50 137 S1+ 70 - 130 07/10/23 13:23 07/12/23 17:50 o-Terphenyl 1 Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit D Dil Fac Prepared Analyzed 4.95 07/11/23 13:24 131 Chloride mg/Kg 1 Client Sample ID: FS03 Lab Sample ID: 890-4903-3 Date Collected: 07/06/23 09:50 Matrix: Solid Date Received: 07/06/23 13:51 Sample Depth: 1.0' Method: SW846 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 07/12/23 02:24 Benzene <0.00199 U 0.00199 07/11/23 10:06 mg/Kg 1 Toluene <0.00199 U 0.00199 07/11/23 10:06 07/12/23 02:24 mg/Kg 07/12/23 02:24 Ethylbenzene <0.00199 U 0.00199 mg/Kg 07/11/23 10:06 1 m-Xylene & p-Xylene <0.00398 U 0.00398 mg/Kg 07/11/23 10:06 07/12/23 02:24 o-Xylene <0.00199 U 0.00199 mg/Kg 07/11/23 10.06 07/12/23 02:24 1 Xylenes, Total <0.00398 U 0.00398 mg/Kg 07/11/23 10:06 07/12/23 02:24 1 Qualifier Surrogate %Recovery Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 111 70 - 130 07/11/23 10:06 07/12/23 02:24 1 70 - 130 07/11/23 10:06 1,4-Difluorobenzene (Surr) 107 07/12/23 02:24 1

Method: TAL SOP Total BTEX - Tot	al BTEX Calo	ulation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/12/23 10:21	1

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Released to Imaging: 8/30/2023 3:09:30 PM

Client Sample Results

Job ID: 890-4903-1

Client Sample ID: FS03

Date Collected: 07/06/23 09:50 Date Received: 07/06/23 13:51

Sample Depth: 1.0'

Client: Ensolum

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			07/13/23 13:02	1
Method: SW846 8015B NM - Die	sel Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		07/10/23 13:23	07/12/23 18:13	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		07/10/23 13:23	07/12/23 18:13	1
Oll Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		07/10/23 13:23	07/12/23 18:13	1
Total TPH	<50.5	U	50.5	mg/Kg		07/10/23 13:23	07/12/23 18:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			07/10/23 13:23	07/12/23 18:13	1
o-Terphenyl	138	S1+	70 - 130			07/10/23 13:23	07/12/23 18:13	1
Method: EPA 300.0 - Anions, lor	n Chromatograp	hy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	68.2		4.97	mg/Kg			07/11/23 13:29	1

Date Received: 07/06/23 13:51

Sample Depth: 1.0'

Method: SW846 8021B - Volatile Organic Compounds (GC) Result Qualifier RL Unit D Dil Fac Analyte Prepared Analyzed Benzene <0.00198 U 0.00198 mg/Kg 07/11/23 10:06 07/12/23 02:45 1 Toluene <0.00198 U 0.00198 07/11/23 10:06 07/12/23 02:45 mg/Kg 1 07/11/23 10:06 07/12/23 02:45 Ethylbenzene <0.00198 U 0.00198 mg/Kg 1 m-Xylene & p-Xylene <0.00396 U 0.00396 07/11/23 10:06 07/12/23 02:45 mg/Kg 1 07/12/23 02:45 o-Xylene <0.00198 U 0.00198 mg/Kg 07/11/23 10:06 1 Xylenes, Total <0.00396 U 0.00396 mg/Kg 07/11/23 10:06 07/12/23 02:45 1 Qualifier Limits Surrogate %Recovery Prepared Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 111 70 - 130 07/11/23 10:06 07/12/23 02:45 1 1,4-Difluorobenzene (Surr) 113 70 - 130 07/11/23 10:06 07/12/23 02:45 1 Method: TAL SOP Total BTEX - Total BTEX Calculation Analyte **Result Qualifier** RL Unit D Prepared Analyzed Dil Fac Total BTEX <0.00396 U 07/12/23 10:21 0.00396 mg/Kg 1 Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Total TPH <50.5 U 50.5 mg/Kg 07/13/23 13:02 Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Result Qualifier Analyte RL Unit D Dil Fac Prepared Analyzed Gasoline Range Organics <50.5 U 50.5 mg/Kg 07/10/23 13:23 07/12/23 18:35 (GRO)-C6-C10 **Diesel Range Organics (Over** <50.5 U 50.5 mg/Kg 07/10/23 13:23 07/12/23 18:35

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07/12/23 18:35

SDG: 03D2024198 Lab Sample ID: 890-4903-3 Matrix: Solid

Oll Range Organics (Over C28-C36)

C10-C28)

50.5

mg/Kg

07/10/23 13:23

<50.5 U

Client Sample Results

Job ID: 890-4903-1 SDG: 03D2024198

Client Sample ID: FS04

Date Collected: 07/06/23 09:55 Date Received: 07/06/23 13:51

Sample Depth: 1.0'

Client: Ensolum

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg		07/10/23 13:23	07/12/23 18:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			07/10/23 13:23	07/12/23 18:35	1
o-Terphenyl	136	S1+	70 - 130			07/10/23 13:23	07/12/23 18:35	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.9	5.00	mg/Kg			07/11/23 13:34	1
Client Sample ID: FS05					Lab Sa	mple ID: 890-	4903-5

Client Sample ID: FS05

Date Collected: 07/06/23 10:00 Date Received: 07/06/23 13:51

Sample Depth: 1.0'

Method: SW846 8021B - Volati	le Organic Comp	ounds (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 04:07	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 04:07	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 04:07	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/11/23 10:06	07/12/23 04:07	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 04:07	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/11/23 10:06	07/12/23 04:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			07/11/23 10:06	07/12/23 04:07	1
1,4-Difluorobenzene (Surr)	98		70 - 130			07/11/23 10:06	07/12/23 04:07	1

	Method: TAL SOP Total BTEX - Total	BTEX Cal	culation						
A	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ţ	Total BTEX	<0.00400	U	0.00400	mg/Kg			07/12/23 10:21	1

Method: SW846 8015 NM - Diesel	Range Organi	ics (DRO) (G	C)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			07/13/23 13:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.3	U	50.3	mg/Kg		07/10/23 13:23	07/12/23 18:58	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.3	U	50.3	mg/Kg		07/10/23 13:23	07/12/23 18:58	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		07/10/23 13:23	07/12/23 18:58	1
Total TPH	<50.3	U	50.3	mg/Kg		07/10/23 13:23	07/12/23 18:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130			07/10/23 13:23	07/12/23 18:58	1
o-Terphenyl	142	S1+	70 - 130			07/10/23 13:23	07/12/23 18:58	1

Lab Sample ID: 890-4903-4 Matrix: Solid

Matrix: Solid

Client Sample Results

Client: Ensolum Project/Site: Red Raider BKS State	Com 001		-				Job ID: 890 SDG: 03D2	
Client Sample ID: FS05 Date Collected: 07/06/23 10:00 Date Received: 07/06/23 13:51 Sample Depth: 1.0'						Lab Sar	nple ID: 890- Matri	4903-5 ix: Solid
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy - Solubl	e					
Analyte		Qualifier		Unit	D	Prepared	Analyzed 07/11/23 13:39	Dil Fac
Chloride	68.2		4.90	mg/Kg			07/11/23 13:39	
Client Sample ID: FS06 Date Collected: 07/06/23 10:05 Date Received: 07/06/23 13:51 Sample Depth: 1.0'						Lab Sar	nple ID: 890- Matri	4903-6 ix: Solid
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC))					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/11/23 10:06	07/12/23 04:28	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/11/23 10:06	07/12/23 04:28	1
Ethylbenzene	<0.00202		0.00202	mg/Kg		07/11/23 10:06	07/12/23 04:28	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		07/11/23 10:06	07/12/23 04:28	1
o-Xylene	<0.00202		0.00202	mg/Kg		07/11/23 10:06	07/12/23 04:28	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		07/11/23 10:06	07/12/23 04:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			07/11/23 10:06	07/12/23 04:28	1
1,4-Difluorobenzene (Surr)	111		70 - 130			07/11/23 10:06	07/12/23 04:28	1
— Method: TAL SOP Total BTEX - 1	otal BTEX Calo	culation						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			07/12/23 10:21	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/14/23 12:10	1
	sel Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	49.9	mg/Kg		07/13/23 08:00	07/13/23 10:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 10:49	1
Oll Range Organics (Over C28-C36)	<49.9		49.9	mg/Kg		07/13/23 08:00	07/13/23 10:49	1
Total TPH	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 10:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130			07/13/23 08:00	07/13/23 10:49	1
o-Terphenyl	112		70 - 130			07/13/23 08:00	07/13/23 10:49	1
– Method: EPA 300.0 - Anions, Ion	Chromatogram	hy - Solubl	e					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	138		5.04	mg/Kg			07/11/23 13:45	1

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

Result Qualifier

<0.00199 U

<0.00199 U

RL

0.00199

0.00199

Unit

mg/Kg

mg/Kg

D

Prepared

07/11/23 10:06

07/11/23 10:06

Job ID: 890-4903-1 SDG: 03D2024198

Client Sample ID: FS07

Date Collected: 07/06/23 10:10 Date Received: 07/06/23 13:51

Sample Depth: 1.0'

Client: Ensolum

Analyte

Benzene

Toluene

Lab Sample ID: 890-4903-7

Analyzed

07/12/23 04:49

07/12/23 04:49

Matrix: Solid

Dil Fac

1

1

5

23 04:49	1	_
23 04:49	1	8
23 04:49	1	
lyzed	Dil Fac	9
23 04:49	1	4.0
23 04:49	1	10
lyzed	Dil Fac	11
23 10:21	1	12
lyzed	Dil Fac	13
23 12:10	1	14
lyzed	Dil Fac	
23 11:54	1	

Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/11/23 10:06	07/12/23 04:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/11/23 10:06	07/12/23 04:49	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/11/23 10:06	07/12/23 04:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/11/23 10:06	07/12/23 04:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			07/11/23 10:06	07/12/23 04:49	1
1,4-Difluorobenzene (Surr)	104		70 - 130			07/11/23 10:06	07/12/23 04:49	1
Method: TAL SOP Total BTEX - To	otal BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/12/23 10:21	1
Method: SW846 8015 NM - Diese	Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			07/14/23 12:10	1
- Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/13/23 08:00	07/13/23 11:54	1
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		07/13/23 08:00	07/13/23 11:54	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/13/23 08:00	07/13/23 11:54	1
Total TPH	<50.0	U	50.0	mg/Kg		07/13/23 08:00	07/13/23 11:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130			07/13/23 08:00	07/13/23 11:54	1
o-Terphenyl	106		70 - 130			07/13/23 08:00	07/13/23 11:54	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	131	F1	4.99	mg/Kg			07/11/23 13:50	1
Client Sample ID: FS08						Lab Sar	nple ID: 890-	4903-8
Date Collected: 07/06/23 10:15								x: Solid
Date Received: 07/06/23 13:51								

Method: SW846 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL Unit D Prepared Analyzed Benzene <0.00202 U 0.00202 mg/Kg 07/11/23 10:06 07/12/23 05:09 Toluene <0.00202 U 0.00202 mg/Kg 07/11/23 10:06 07/12/23 05:09 <0.00202 U 0.00202 07/12/23 05:09 Ethylbenzene mg/Kg 07/11/23 10:06 m-Xylene & p-Xylene <0.00404 U 0.00404 07/11/23 10:06 07/12/23 05:09 mg/Kg o-Xylene <0.00202 U 0.00202 07/11/23 10:06 07/12/23 05:09 mg/Kg 0.00404 07/12/23 05:09 Xylenes, Total <0.00404 U 07/11/23 10:06 mg/Kg

Eurofins Carlsbad

Released to Imaging: 8/30/2023 3:09:30 PM

Dil Fac

1

1

1

1

1

Client: Ensolum

5

Client Sample Results

Job ID: 890-4903-1 SDG: 03D2024108

Lab Sample ID: FS08 Lab Sample ID: Date Collected: 07/06/23 10:15 Sample Depth: 1.0' Surrogate Prepared Analyze Operated Analyze Analyze Analyze Operated Analyze Operated Analyze Operated Analyze Operated Analyze Operated Analyze Operated Analy	Dil Fac 09 1 09 1 21 Dil Fac 21 1
Date Collected: 07/06/23 10:15 Date Received: 07/06/23 13:51 Sample Depth: 1.0' Surragate %Recovery Qualifier Limits Prepared Analyze 4-Bronnchuorobenzene (Surr) 111 70.130 07/11/23 10:06 07/12/23 0 Method: TAL SOP Total BTEX - Total BTEX Calculation Nanalyze Prepared Analyze Analyze Result Qualifier RL Unit D Prepared Analyze Total BTEX <0.00404 U 0.00404 mg/Kg 07/11/23 10:06 07/12/23 0 Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Analyze Result Qualifier RL mg/Kg 07/13/23 08:00 07/13/23 1 Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analyze Result Qualifier RL mg/Kg 07/13/23 08:00 07/13/23 1 Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analyze Claififer RL mg/Kg 07/13/23 08:00 07/13/23 1 Method: SW846 8015B NM - Diesel Range Organics (Over 49.9 U 49.9	Dil Fac 09 1 09 1 21 Dil Fac 21 1
Date Received: 07/06/23 13:51 Surrogate %Recovery Qualifier Limits Prepared Analyze 4-Bronofluorobenzene (Surr) 111 70.130 07/11/23 10:06 07/12/23 0 1.4-Diffuorobenzene (Surr) 106 70.130 07/11/23 10:06 07/12/23 0 Method: TAL SOP Total BTEX - Total BTEX Calculation Analyze Result Qualifier RL Unit D Prepared Analyze Total BTEX <0.00404 0 0.00404 mg/Kg 07/11/23 10:06 07/12/23 0 Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Analyze Result Qualifier RL Unit D Prepared Analyze Gasoline Range Organics Result Qualifier RL Unit D Prepared Analyze Group Cascine Result Qualifier RL Unit D Prepared Analyze Group Cascine Range Organics (Over <49.9 U 49.9 mg/Kg 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00	Dil Fac 09 1 09 1 21 Dil Fac 21 1
Sample Depth: 1.0' Surrogate %Recovery Qualifier Limits Prepared Analyze 4:Bromofluorobenzene (Surr) 111 70.130 07/11/23 10.06 07/12/23 0 Method: TAL SOP Total BTEX - Total BTEX Calculation Analyze 0.00404 U 0.00404 mg/Kg 07/11/23 10.06 07/12/23 0 Method: TAL SOP Total BTEX - Total BTEX Calculation Result Qualifier RL Unit D Prepared Analyze Total BTEX <0.00404 U 0.00404 mg/Kg 07/12/23 0 07/12/23 0 07/12/23 0 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 0 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 0 0/11/23 0 0/11/23 1 0/11/23 0 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 0 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1 0/11/23 1	09 1 09 1
Surragate %/Recovery Qualifier Limits Prepared Analyze 4-Bromofluorobenzene (Surr) 111 70.130 07/1/23 10.06 07/1/23 10.07 07/1/23 10.06 07/1/23 10.06 07/1/23 10.07 07/1/23 10.06 07/1/23 10.07 07/1/23 10.06 07/1/23 10.07 07/1/23 10.06 07/1/23 10.06 07/1/23 10.06 07/1/23 10.06 07/1/23 10.06 07/1/32 10.06 07/1/32 10.06 07/1/32 10.06	09 1 09 1
4-Bromofluorobenzene (Surr) 111 70.130 07/11/23 10:06 07/11/23 10:00 07/11/23 10:00 07/11/23 10:00 07/11/23 10:00 07/11/23 10:00 07/11/23 10:00 07/11/23 10:00 07/11/23 10:00 07/11/23 10:00 07/11/23 10:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00:00 07/13/23 00	09 1 09 1
4-Bromofluorobenzene (Surr) 111 70.130 07/11/23 10.06 07/11/23 10	09 1 09 1
1.4-Difluorobenzene (Sum) 106 70.130 07/11/23 10:06 07/11/23 0:00	09 1 Dil Fac 21 1 Dil Fac
Method: TAL SOP Total BTEX - Total BTEX Calculation Analyte Result Qualifier RL Unit D Prepared Analyze Total BTEX <0.00404	21 1 Dil Fac
AnalyteResultQualifierRLUnitDPreparedAnalyzeTotal BTEX<0.00404	21 1 Dil Fac
Total BTEX <0.00404 U 0.00404 mg/Kg 07/12/23 1 Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyze Total TPH <49.9	21 1 Dil Fac
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyze Total TPH <49.9	Dil Fac
AnalyteResultQualifierRLUnitDPreparedAnalyzeTotal TPH<49.9	
Total TPH <49.9 U 49.9 mg/Kg 07/14/23 1 Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyze Gasoline Range Organics (Over <49.9	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL Unit D Prepared Analyza Gasoline Range Organics <49.9	10 1
Analyte Result Qualifier RL Unit D Prepared Analyze Gasoline Range Organics <49.9	
Analyte Result Qualifier RL Unit D Prepared Analyze Gasoline Range Organics <49.9	
Gasoline Range Organics <49.9 U 49.9 mg/Kg 07/13/23 08:00 07/13/23 1 (GRO)-C6-C10 Diesel Range Organics (Over <49.9	Dil Fac
Diesel Range Organics (Over <49.9	17 1
C10-C28) OII Range Organics (Over C28-C36) <49.9	
Oll Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 07/13/23 08:00 07/13/23 1 Total TPH <49.9	17 1
Total TPH <49.9 U 49.9 mg/Kg 07/13/23 08:00 07/13/23 1 Surrogate %Recovery Qualifier Limits Prepared Analyze 1-Chlorooctane 132 \$1+ 70-130 07/13/23 08:00 07/13/23 1 o-Terphenyl 115 70-130 07/13/23 08:00 07/13/23 1 Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit D Prepared Analyze Chloride 45.0 4.95 mg/Kg 07/13/23 1 <td< td=""><td>47 4</td></td<>	47 4
Surrogate%RecoveryQualifierLimitsPreparedAnalyze1-Chlorooctane132\$1+70 - 13007/13/23 08:0007/13/23 1o-Terphenyl11570 - 13007/13/23 08:0007/13/23 1Method: EPA 300.0 - Anions, Ion Chromatography - SolubleAnalyteResultQualifierRLUnitDPreparedAnalyzeChloride45.04.95mg/Kg07/11/23 107/11/23 1Client Sample ID: FS09Lab Sample ID:DLab Sample ID:Date Collected: 07/06/23 10:2007/06/23 13:5107/06/23 13:5107/06/23 13:51Cample Depth: 1.0'1.0'07/06/23 13:5107/06/23 13:5107/06/23 13:51	
1-Chlorooctane 132 S1+ 70 - 130 07/13/23 08:00 07/13/23 1 o-Terphenyl 115 70 - 130 07/13/23 08:00 07/13/23 1 Method: EPA 300.0 - Anions, Ion Chromatography - Soluble 07/13/23 08:00 07/13/23 1 Analyte Result Qualifier RL Unit D Prepared Analyze Chloride 45.0 4.95 mg/Kg 07/11/23 1 07/11/23 1 Client Sample ID: FS09 Lab Sample ID: D Lab Sample ID: Date Collected: 07/06/23 10:20 07/06/23 13:51 07/06/23 13:51 07/06/23 13:51	17 1
o-Terphenyl 115 70 - 130 07/13/23 08:00 07/13/23 1 Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit D Prepared Analyze Chloride 45.0 4.95 mg/Kg D 07/13/23 1 07/11/23 1 Client Sample ID: FS09 Lab Sample ID: Sample ID: Client Sample ID: D Lab Sample ID: Date Collected: 07/06/23 10:20 Collected: 07/06/23 13:51 Collected: 07/06/23 13:51 Client Sample ID: Collected: 07/06/23 13:51	Dil Fac
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL Unit D Prepared Analyze Chloride 45.0 4.95 mg/Kg 07/11/23 1 Client Sample ID: FS09 Lab Sample ID: Date Collected: 07/06/23 10:20 Lab Sample ID: Date Received: 07/06/23 13:51 Sample Depth: 1.0'	17 1
Analyte Result Qualifier RL Unit D Prepared Analyze Chloride 45.0 4.95 4.95 mg/Kg 07/11/23 1 Client Sample ID: FS09 Eab Sample ID: Client Sample ID: Client Sample ID: Client Sample ID: Date Collected: 07/06/23 10:20 Client Sample Depth: 1.0' Client Sample ID: Client Sample ID:	17 1
Analyte Result Qualifier RL Unit D Prepared Analyze Chloride 45.0 4.95 4.95 mg/Kg 07/11/23 1 Client Sample ID: FS09 Eab Sample ID: Client Sample ID: Client Sample ID: Client Sample ID: Date Collected: 07/06/23 10:20 Client Sample Depth: 1.0' Client Sample ID: Client Sample ID:	
Chloride 45.0 4.95 mg/Kg 07/11/23 1 Client Sample ID: FS09 Lab Sample ID: Date Collected: 07/06/23 10:20 Lab Sample ID: Date Received: 07/06/23 13:51 Sample Depth: 1.0'	Dil Fac
Date Collected: 07/06/23 10:20 Date Received: 07/06/23 13:51 Sample Depth: 1.0'	
Date Collected: 07/06/23 10:20 Date Received: 07/06/23 13:51 Sample Depth: 1.0'	00-1003-0
Date Received: 07/06/23 13:51 Sample Depth: 1.0'	latrix: Solid
Sample Depth: 1.0'	atrix. Soliu
Method: SW846 8021B - Volatile Organic Compounds (GC)	5
Analyte Result Qualifier RL Unit P repared Analyze Benzene <0.00199	
Toluene <0.00199 U 0.00199 mg/Kg 07/11/23 0.07/12/23 Ethylbenzene <0.00199	
· · · · · · · · · · · · · · · · · · ·	
m-Xylene & p-Xylene <0.00398 U 0.00398 mg/Kg 07/11/23 00 07/12/23 0 o-Xylene <0.00199	
So-sylene <0.00199 0.00199	
Surrogate %Recovery Qualifier Limits Prepared Analyze	
4-Bromofluorobenzene (Surr) 108 70 - 130 07/11/23 10:06 07/12/23 0	30 1 Dil Fac
1,4-Difluorobenzene (Surr) 108 70 - 130 07/11/23 10:06 07/12/23 0	30 1 <i>Dil Fac</i> 30 1

Method: TAL SOP Total BTEX - Total BTEX Calculation Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac Total BTEX <0.00398 U 0.00398 mg/Kg 07/12/23 10:21 1

Client Sample Results

Job ID: 890-4903-1 SDG: 03D2024198

Lab Sample ID: 890-4903-9

Client Sample ID: FS09

Date Collected: 07/06/23 10:20 Date Received: 07/06/23 13:51

Sample Depth: 1.0'

Client: Ensolum

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			07/14/23 12:10	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		07/13/23 08:00	07/13/23 12:39	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		07/13/23 08:00	07/13/23 12:39	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/13/23 08:00	07/13/23 12:39	1
Total TPH	<49.8	U	49.8	mg/Kg		07/13/23 08:00	07/13/23 12:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	135	S1+	70 - 130			07/13/23 08:00	07/13/23 12:39	1
o-Terphenyl	117		70 - 130			07/13/23 08:00	07/13/23 12:39	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy - Solubl	e					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	83.8		5.01	mg/Kg			07/11/23 14:10	1

Client Sample ID: FS10

Date Collected: 07/06/23 10:25

Date Received: 07/06/23 13:51

Sample Depth: 1.0'

-								
Method: SW846 8021B - Volatile Analyte		ounds (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 05:51	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 05:51	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 05:51	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		07/11/23 10:06	07/12/23 05:51	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 05:51	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		07/11/23 10:06	07/12/23 05:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			07/11/23 10:06	07/12/23 05:51	1
1,4-Difluorobenzene (Surr)	107		70 - 130			07/11/23 10:06	07/12/23 05:51	1
- Method: TAL SOP Total BTEX -	Total BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/12/23 10:21	1
- Method: SW846 8015 NM - Dies	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	65.4		49.9	mg/Kg			07/14/23 12:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 13:01	1
(GRO)-C6-C10								
Diesel Range Organics (Over	65.4		49.9	mg/Kg		07/13/23 08:00	07/13/23 13:01	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 13:01	1

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Matrix: Solid

Matrix: Solid

Client Sample Results

Job ID: 890-4903-1 SDG: 03D2024198

Lab Sample ID: 890-4903-10

Client: Ensolum Project/Site: Red Raider BKS State Com 001

Client Sample ID: FS10
Date Collected: 07/06/23 10:25
Date Received: 07/06/23 13:51

Date Received:	07/06/23	13:5
Sample Depth:	1.0'	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	65.4		49.9	mg/Kg		07/13/23 08:00	07/13/23 13:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130			07/13/23 08:00	07/13/23 13:01	1
o-Terphenyl	117		70 - 130			07/13/23 08:00	07/13/23 13:01	1

RL

4.97

Unit

mg/Kg

D

Prepared

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	
Analyte	Result	Qualifier	
Chloride	79.0		



Analyzed

Matrix: Solid

Dil Fac

Date Collected: 07/06/23 10:30 Date Received: 07/06/23 13:51 Sample Depth: 1.0'

Client Sample ID: SS05A

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00201	U	0.00201	mg/Kg		07/11/23 10:06	07/12/23 06:11	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/11/23 10:06	07/12/23 06:11	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/11/23 10:06	07/12/23 06:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/11/23 10:06	07/12/23 06:11	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/11/23 10:06	07/12/23 06:11	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/11/23 10:06	07/12/23 06:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			07/11/23 10:06	07/12/23 06:11	1
1,4-Difluorobenzene (Surr)	101		70 - 130			07/11/23 10:06	07/12/23 06:11	1

Method: TAL SOP Total BTEX - Tot	al BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/12/23 10:21	1
_								

Method: SW846 8015 NM - Diesel Ran	ge Organ	ics (DRO) (G	iC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			07/14/23 12:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		07/13/23 08:00	07/13/23 13:23	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		07/13/23 08:00	07/13/23 13:23	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/13/23 08:00	07/13/23 13:23	1
Total TPH	<49.8	U	49.8	mg/Kg		07/13/23 08:00	07/13/23 13:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130			07/13/23 08:00	07/13/23 13:23	1
o-Terphenyl	119		70 - 130			07/13/23 08:00	07/13/23 13:23	1

Matrix: Solid

5

Released to Imaging: 8/30/2023 3:09:30 PM

Client Sample Results

Inh ID: 800 /003 1

Client: Ensolum Project/Site: Red Raider BKS State	Com 001						Job ID: 890 SDG: 03D2	
Client Sample ID: SS05A						Lab Sam	ple ID: 890-4	903-11
Date Collected: 07/06/23 10:30								ix: Solid
Date Received: 07/06/23 13:51								Al Cond
Sample Depth: 1.0'								
_ Method: EPA 300.0 - Anions, Ion	Chromatogram	hy - Solubl	٥					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	157		4.95	mg/Kg			07/11/23 14:31	1
Client Sample ID: SS07A						Lab Sam	ple ID: 890-4	903-12
Date Collected: 07/06/23 10:35							-	ix: Solid
Date Received: 07/06/23 13:51							inati	X. 00110
Sample Depth: 1.0'								
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC))					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/11/23 10:06	07/12/23 06:32	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/11/23 10:06	07/12/23 06:32	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/11/23 10:06	07/12/23 06:32	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		07/11/23 10:06	07/12/23 06:32	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/11/23 10:06	07/12/23 06:32	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		07/11/23 10:06	07/12/23 06:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			07/11/23 10:06	07/12/23 06:32	1
1,4-Difluorobenzene (Surr)	102		70 - 130			07/11/23 10:06	07/12/23 06:32	1
- Method: TAL SOP Total BTEX - T	otal BTEX Calo	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			07/12/23 10:21	1
_ Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/14/23 12:10	1
_ Method: SW846 8015B NM - Dies	ol Pango Orga		(60)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 13:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 13:45	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 13:45	1
Total TPH	<49.9		49.9	mg/Kg		07/13/23 08:00	07/13/23 13:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130			07/13/23 08:00	07/13/23 13:45	1
o-Terphenyl	116		70 - 130			07/13/23 08:00	07/13/23 13:45	1
_ Method: EPA 300.0 - Anions, Ion	Chromatogram	hy - Solubl	e					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
					-			

Job ID: 890-4903-1 SDG: 03D2024198

Matrix: Solid

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Lab Sample ID: 890-4903-13

Client Sample ID: SS08A

Date Collected: 07/06/23 10:40 Date Received: 07/06/23 13:51

Sample Depth:

Client: Ensolum

1.0'		

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 06:53	
Toluene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 06:53	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 06:53	
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/11/23 10:06	07/12/23 06:53	
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/12/23 06:53	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/11/23 10:06	07/12/23 06:53	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	96		70 - 130			07/11/23 10:06	07/12/23 06:53	
1,4-Difluorobenzene (Surr)	109		70 - 130			07/11/23 10:06	07/12/23 06:53	
Method: TAL SOP Total BTEX - T	otal BTEX Cal	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399	mg/Kg			07/12/23 10:21	
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	19.1		50.0	mg/Kg			07/14/23 12:10	
		. (220)						
Method: SW846 8015B NM - Dies	sel Rande Orda	nics (DRO)	(GC)					
Method: SW846 8015B NM - Dies Analyte		Qualifier	(GC) RL	Unit	D	Prepared	Analyzed	Dil Fa
Analyte Gasoline Range Organics		Qualifier	· · · ·	Unit mg/Kg	<u> </u>	Prepared 07/13/23 08:00	Analyzed 07/13/23 14:06	Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U			<u>D</u>	· · · · · · · · · · · · · · · · · · ·		-
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0	Qualifier U	RL 50.0	mg/Kg	<u> </u>	07/13/23 08:00	07/13/23 14:06	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U	RL 50.0	mg/Kg	<u>D</u>	07/13/23 08:00 07/13/23 08:00	07/13/23 14:06 07/13/23 14:06	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH	Result <50.0 19.1 <50.0	Qualifier U U	RL 50.0 50.0 50.0	mg/Kg mg/Kg mg/Kg	<u>D</u>	07/13/23 08:00 07/13/23 08:00 07/13/23 08:00	07/13/23 14:06 07/13/23 14:06 07/13/23 14:06	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate	Result <50.0 19.1 <50.0 19.	Qualifier U Qualifier	RL 50.0 50.0 50.0 50.0 50.0	mg/Kg mg/Kg mg/Kg	<u> </u>	07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00	07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06	
	Result <50.0 19.1 <50.0 19. %Recovery	Qualifier U Qualifier	RL 50.0 50.0 50.0 50.0 50.0 50.0 50.0 Limits	mg/Kg mg/Kg mg/Kg	<u>D</u>	07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 Prepared	07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 Analyzed	Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane	Result <50.0	Qualifier U Qualifier S1+	RL 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 70.130 70.130	mg/Kg mg/Kg mg/Kg	<u> </u>	07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 Prepared 07/13/23 08:00	07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 <u>Analyzed</u> 07/13/23 14:06	Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane o-Terphenyl	Result <50.0	Qualifier U Qualifier S1+	RL 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.0 70.130 70.130	mg/Kg mg/Kg mg/Kg	<u>D</u>	07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 Prepared 07/13/23 08:00	07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 <u>Analyzed</u> 07/13/23 14:06	Dil Fa
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Total TPH Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion	Result <50.0	Qualifier U Qualifier S1+	RL 50.0 70.130 6 <td>mg/Kg mg/Kg mg/Kg mg/Kg</td> <td></td> <td>07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00</td> <td>07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06</td> <td>Dil Fa</td>	mg/Kg mg/Kg mg/Kg mg/Kg		07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00 07/13/23 08:00	07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06 07/13/23 14:06	Dil Fa

a: 07/06/23 10:45 Date Received: 07/06/23 13:51 Sample Depth: 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		07/11/23 10:06	07/12/23 07:13	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/11/23 10:06	07/12/23 07:13	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/11/23 10:06	07/12/23 07:13	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		07/11/23 10:06	07/12/23 07:13	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/11/23 10:06	07/12/23 07:13	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		07/11/23 10:06	07/12/23 07:13	1

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Released to Imaging: 8/30/2023 3:09:30 PM

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Client Sample Results

Job ID: 890-4903-1 SDG: 03D2024198

Project/Site: Red Raider BKS State	Com 001						SDG: 03D2	2024198
Client Sample ID: SS10						Lab Sam	ple ID: 890-4	903-14
ate Collected: 07/06/23 10:45							Matri	ix: Solid
Date Received: 07/06/23 13:51								
Sample Depth: 0.5								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130			07/11/23 10:06	07/12/23 07:13	1
1,4-Difluorobenzene (Surr)	110		70 - 130			07/11/23 10:06	07/12/23 07:13	1
Method: TAL SOP Total BTEX - T	Total BTEX Cal	culation						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			07/12/23 10:21	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/14/23 12:10	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)) (GC)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 14:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 14:29	
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 14:29	
Total TPH	<49.9		49.9	mg/Kg		07/13/23 08:00	07/13/23 14:29	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	134	S1+	70 - 130			07/13/23 08:00	07/13/23 14:29	
o-Terphenyl	116		70 - 130			07/13/23 08:00	07/13/23 14:29	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	ohy - Solub	le					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	138		5.05	mg/Kg			07/11/23 14:46	1
lient Sample ID: SS10A						Lab Sam	ple ID: 890-4	903-15
ate Collected: 07/06/23 10:50							Matri	ix: Solic
ate Received: 07/06/23 13:51								
ample Depth: 1.0'								
Method: SW846 8021B - Volatile)					
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199		0.00199	mg/Kg		07/11/23 10:19	07/11/23 19:32	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/11/23 10:19	07/11/23 19:32	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/11/23 10:19	07/11/23 19:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/11/23 10:19	07/11/23 19:32	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/11/23 10:19	07/11/23 19:32	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/11/23 10:19	07/11/23 19:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	104		70 - 130			07/11/23 10:19	07/11/23 19:32	1

Method: TAL SOP Total BTEX - Total BTEX Calculation											
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
	Total BTEX	<0.00398	U	0.00398	mg/Kg			07/12/23 10:21	1		

70 - 130

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07/11/23 10:19 07/11/23 19:32

Client: Ensolum Project/Site: Red Raider BKS State Com 001

1,4-Difluorobenzene (Surr)

Client Sample Results

Job ID: 890-4903-1 SDG: 03D2024198

Matrix: Solid

Lab Sample ID: 890-4903-15

Client Sample ID: SS10A

Date Collected: 07/06/23 10:50 Date Received: 07/06/23 13:51

Date Received.	01/00/23
Sample Depth:	1.0'

Client: Ensolum

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/14/23 12:10	1
Method: SW846 8015B NM - Diese	el Range Orga	anics (DRO)	(GC)					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 14:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 14:51	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 14:51	1
Total TPH	<49.9	U	49.9	mg/Kg		07/13/23 08:00	07/13/23 14:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130			07/13/23 08:00	07/13/23 14:51	1
o-Terphenyl	112		70 - 130			07/13/23 08:00	07/13/23 14:51	1
Method: EPA 300.0 - Anions, Ion	Chromatogra	phy - Solub!	le					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	83.2		4.98	mg/Kg			07/11/23 14:51	1
Job ID: 890-4903-1 SDG: 03D2024198

Prep Type: Total/NA

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Client: Ensolum

		BFB1	DFBZ1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-30536-A-1-B MS	Matrix Spike	113	107	 -
880-30536-A-1-C MSD	Matrix Spike Duplicate	105	103	
880-30539-A-2-A MS	Matrix Spike	110	106	
880-30539-A-2-B MSD	Matrix Spike Duplicate	114	100	
890-4903-1	FS01	114	110	
890-4903-2	FS02	105	106	
890-4903-3	FS03	111	107	
890-4903-4	FS04	111	113	
890-4903-5	FS05	104	98	
890-4903-6	FS06	107	111	
890-4903-7	FS07	104	104	
890-4903-8	FS08	111	106	
890-4903-9	FS09	108	108	
890-4903-10	FS10	113	107	
890-4903-11	SS05A	121	101	
890-4903-12	SS07A	123	102	
890-4903-13	SS08A	96	109	
890-4903-14	SS10	98	110	
890-4903-15	SS10A	104	113	
LCS 880-57294/1-B	Lab Control Sample	103	105	
LCS 880-57389/1-A	Lab Control Sample	109	100	
LCSD 880-57294/2-B	Lab Control Sample Dup	103	106	
LCSD 880-57389/2-A	Lab Control Sample Dup	116	105	
MB 880-57294/5-B	Method Blank	90	96	
MB 880-57389/5-A	Method Blank	87	98	

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

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4903-1	FS01	111	136 S1+
890-4903-2	FS02	114	137 S1+
890-4903-3	FS03	115	138 S1+
890-4903-4	FS04	111	136 S1+
890-4903-5	FS05	117	142 S1+
890-4903-6	FS06	126	112
890-4903-6 MS	FS06	131 S1+	105
890-4903-6 MSD	FS06	121	92
890-4903-7	FS07	122	106
890-4903-8	FS08	132 S1+	115
890-4903-9	FS09	135 S1+	117
890-4903-10	FS10	136 S1+	117
890-4903-11	SS05A	137 S1+	119
890-4903-12	SS07A	136 S1+	116

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Job ID: 890-4903-1 SDG: 03D2024198

Client: Ensolum

Project/Site: Red Raider BKS State Com 001

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

Prep	Type:	Total/NA

				Percent Surrogate Recovery (Acceptance Limits)						
		1CO1	OTPH1							
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		5					
890-4903-13	SS08A	138 S1+	115		J					
890-4903-14	SS10	134 S1+	116		6					
890-4903-15	SS10A	129	112		Ο					
890-4911-A-21-E MS	Matrix Spike	130	139 S1+							
890-4911-A-21-F MSD	Matrix Spike Duplicate	119	128							
LCS 880-57313/2-A	Lab Control Sample	99	122							
LCS 880-57559/2-A	Lab Control Sample	90	82		8					
LCSD 880-57313/3-A	Lab Control Sample Dup	103	124							
LCSD 880-57559/3-A	Lab Control Sample Dup	99	89		9					
MB 880-57313/1-A	Method Blank	117	143 S1+							
MB 880-57559/1-A	Method Blank	127	110							
Surrogate Legend										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Carlsbad

Lab Sample ID: MB 880-57294/5-B

QC Sample Results

Client: Ensolum Project/Site: Red Raider BKS State Com 001

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Analysis Batch: 57380						Prep Type: 1 Prep Batch		
Analysis Batch. 57500	МВ					Fiep Datci	1. 37234	
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/11/23 23:17	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/11/23 23:17	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/11/23 23:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/11/23 10:06	07/11/23 23:17	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:06	07/11/23 23:17	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/11/23 10:06	07/11/23 23:17	1
	MB	МВ						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130			07/11/23 10:06	07/11/23 23:17	1
1,4-Difluorobenzene (Surr)	96		70 - 130			07/11/23 10:06	07/11/23 23:17	1

Lab Sample ID: LCS 880-57294/1-B Matrix: Solid

Analysis Batch: 57380

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1041		mg/Kg		104	70 - 130	
Toluene	0.100	0.1128		mg/Kg		113	70 - 130	
Ethylbenzene	0.100	0.1035		mg/Kg		104	70 - 130	
m-Xylene & p-Xylene	0.200	0.2140		mg/Kg		107	70 - 130	
o-Xylene	0.100	0.1046		mg/Kg		105	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-57294/2-B

Matrix: Solid

Analysis Batch: 57380						Prep Batch: 572		
	Spike	LCSD LCSD				%Rec		RPD
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1137	mg/Kg		114	70 - 130	9	35
Toluene	0.100	0.1186	mg/Kg		119	70 - 130	5	35
Ethylbenzene	0.100	0.1061	mg/Kg		106	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2166	mg/Kg		108	70 - 130	1	35
o-Xylene	0.100	0.1060	mg/Kg		106	70 - 130	1	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-30536-A-1-B MS

Matrix: Solid

Analysis Batch: 57380									Prep	Batch: 57294
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0994	0.1055		mg/Kg		106	70 - 130	
Toluene	<0.00202	U	0.0994	0.1209		mg/Kg		120	70 - 130	

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

3

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 57294

Job ID: 890-4903-1

Lab Sample ID: 880-30536-A-1-B MS

Matrix: Solid

Analyte

o-Xylene

Surrogate

Ethylbenzene

m-Xylene & p-Xylene

Analysis Batch: 57380

QC Sample Results

MS MS

0.1135

0.2382

0.1174

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

Spike

Added

0.0994

0.199

0.0994

Limits

70 - 130

70 - 130

Client: Ensolum Project/Site: Red Raider BKS State Com 001

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

Sample Sample

<0.00202

<0.00403 U

<0.00202 U

113

107

%Recovery

Result Qualifier

U

MS MS

Qualifier

Client Sample ID: Matrix Spike

%Rec

Limits

70 - 130

70 - 130

70 - 130

%Rec

114

118

117

D

Job ID: 890-4903-1 SDG: 03D2024198

Prep Type: Total/NA

Prep Batch: 57294

	5
	7
	8
	9

Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Client Sample ID: Method Blank

07/11/23 12:15

07/11/23 12:15

Client Sample ID: Lab Control Sample

07/11/23 10:19

07/11/23 10:19

Prep Type: Total/NA

Prep Batch: 57389

Matrix: Solid Analysis Batch: 57380

Lab Sample ID: 880-30536-A-1-C MSD

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

Analysis Batch: 57380									Prep	57294		
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	< 0.00202	U	0.0996	0.09539		mg/Kg		95	70 - 130	10	35	
Toluene	<0.00202	U	0.0996	0.1062		mg/Kg		105	70 - 130	13	35	ï
Ethylbenzene	<0.00202	U	0.0996	0.09878		mg/Kg		99	70 - 130	14	35	
m-Xylene & p-Xylene	<0.00403	U	0.199	0.2056		mg/Kg		102	70 - 130	15	35	ŝ
o-Xylene	<0.00202	U	0.0996	0.1017		mg/Kg		101	70 - 130	14	35	
	MSD	MSD										

	10/30	WISD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: MB 880-57389/5-A Matrix: Solid Analysis Batch: 57380

		INIB	MB						
1	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ē	Benzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:19	07/11/23 12:15	1
ר	Toluene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:19	07/11/23 12:15	1
E	Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:19	07/11/23 12:15	1
r	m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/11/23 10:19	07/11/23 12:15	1
0	p-Xylene	<0.00200	U	0.00200	mg/Kg		07/11/23 10:19	07/11/23 12:15	1
)	Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/11/23 10:19	07/11/23 12:15	1
		МВ	МВ						
1	Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

4-Bromofluorobenzene (Surr)	87	70 - 130
1,4-Difluorobenzene (Surr)	98	70 - 130

Lab Sample ID: LCS 880-57389/1-A Matrix: Solid Analysis Batch: 57380

-	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.100	0.09334		mg/Kg		93	70 - 130
Toluene	0.100	0.1078		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1045		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2219		mg/Kg		111	70 - 130

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Prep Type: Total/NA

Prep Batch: 57389

1

1

QC Sample Results

Client: Ensolum Project/Site: Red Raider BKS State Com 001

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

Lab Sample ID: LCS 880-57	389/1-A						Client	t Sample	D: Lab C		
Matrix: Solid									Prep 1	Type: To	tal/NA
Analysis Batch: 57380									Prep	Batch:	5738 <mark>9</mark>
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
o-Xylene			0.100	0.1072		mg/Kg		107	70 - 130		
	105	LCS									
Surragata	%Recovery		Limits								
Surrogate 4-Bromofluorobenzene (Surr)		Quaimer	70 - 130								
1,4-Difluorobenzene (Surr)	109		70 - 130 70 - 130								
	100		10-100								
Lab Sample ID: LCSD 880-5	7389/2-A					Clie	nt San	nple ID:	Lab Contro	ol Sampl	e Dup
Matrix: Solid								· · · ·		· Type: To	
Analysis Batch: 57380										Batch:	
-			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.100	0.1076		mg/Kg		108	70 - 130	14	35
Toluene			0.100	0.1238		mg/Kg		124	70 - 130	14	35
Ethylbenzene			0.100	0.1170		mg/Kg		117	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.2441		mg/Kg		122	70 - 130	9	35
o-Xylene			0.100	0.1164		mg/Kg		116	70 - 130	8	35
	(
- <i>i</i>		LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	116 105		70 ₋ 130 70 ₋ 130								
1,4-Difluorobenzene (Surr)	105		70 - 130								
Lab Sample ID: 880-30539-/	A-2-A MS							Client	Sample ID	: Matrix	Spike
Matrix: Solid										Гуре: То	
Analysis Batch: 57380										Batch:	
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	< 0.00198	U	0.0994	0.1140		mg/Kg		115	70 - 130		
Toluene	<0.00198	U	0.0994	0.1190		mg/Kg		120	70 - 130		
Ethylbenzene	<0.00198	U	0.0994	0.1065		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene	<0.00396	U	0.199	0.2164		mg/Kg		109	70 - 130		
o-Xylene	<0.00198	U	0.0994	0.1033		mg/Kg		104	70 - 130		
• •		MS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	110		70 ₋ 130								
1,4-Difluorobenzene (Surr)	106		70 - 130								
Lab Sample ID: 880-30539-/						C 1	iont S	amnle IF): Matrix S	niko Dur	licato
Matrix: Solid							ient O			ріке Бир Гуре: То	
Analysis Batch: 57380										Batch:	
maiysis Datoli. 3/300	Sample	Sample	Spike	MSD	MSD				%Rec	batch:	57369 RPD
Analyte		Qualifier	Added	Result		Unit	D	%Rec	Limits	RPD	Limit
Benzene	<		0.0998	0.09141	Quaimer	mg/Kg		92	70 - 130	22	35
	< 0.00198			0.1078						10	
Toluene	<0.00198	0	0.0998	0.1078		mg/Kg		108	70 - 130	10	35

35

35

35

2

2

4

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Job ID: 890-4903-1 SDG: 03D2024198

> 4 5 6

<0.00198 U

<0.00396 U

<0.00198 U

Ethylbenzene

o-Xylene

m-Xylene & p-Xylene

0.1040

0.2208

0.1070

mg/Kg

mg/Kg

mg/Kg

104

111

107

70 - 130

70 - 130

70 - 130

0.0998

0.200

0.0998

C10-C28)

QC Sample Results

Client: Ensolum Project/Site: Red Raider BKS State Com 001

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

Lab Sample ID: 880-30539-A-2 Matrix: Solid						Ŭ			Matrix Spike : Prep Type		
Analysis Batch: 57380									Prep Ba		
Analysis Baten. 07000									Перва		/ 000
	MSD MS	D									
Surrogate	%Recovery Qu	alifier	Limits								
4-Bromofluorobenzene (Surr)	114		70 - 130								
1,4-Difluorobenzene (Surr)	100		70 - 130								
ethod: 8015B NM - Diese	el Range Orga	nics (DF	RO) (GC)								
Lab Sample ID: MB 880-57313	B/1-A							Client S	ample ID: Met	hod E	Blank
Matrix: Solid									Prep Type		
Analysis Batch: 57440									Prep Ba		
Analysis Baton. of 440	MF	в мв							Trop Du		
Analyte		t Qualifier	RL		Unit		D P	repared	Analyzed	г	Dil Fac
Gasoline Range Organics	<50.0				<u>mg/Kg</u>			0/23 13:22	07/12/23 11:30		, ,
(GRO)-C6-C10	<00.0	, 0	50.0		mg/rtg	1	077	0/23 13.22	07/12/23 11.30	J	
Diesel Range Organics (Over	<50.0) U	50.0		mg/Kg	1	07/1	0/23 13:22	07/12/23 11:30)	
C10-C28)						,					
Oll Range Organics (Over C28-C36)	<50.0) U	50.0		mg/Kg	I	07/1	0/23 13:22	07/12/23 11:30)	
Fotal TPH	<50.0) U	50.0		mg/Kg		07/1	0/23 13:22	07/12/23 11:30))	
					5.2	,					
		B MB									
Surrogate	%Recovery		Limits					repared	Analyzed		Dil Fa
1-Chlorooctane	117		70 - 130					0/23 13:22			
p-Terphenyl	143	3 S1+	70 - 130				07/1	0/23 13:22	07/12/23 11:3	0	
Lab Sample ID: LCS 880-5731	3/2-A						Client	Sample	ID: Lab Contr	ol Sa	mple
Matrix: Solid									Prep Type	: Tota	al/N/
Analysis Batch: 57440									Prep Ba	tch: 5	731:
			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics			1000	1025		mg/Kg		103	70 - 130		
(GRO)-C6-C10						- •					
Diesel Range Organics (Over			1000	1033		mg/Kg		103	70 - 130		
C10-C28)											
	LCS LC	s									
Surrogate		alifier	Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	122		70 - 130 70 - 130								
, тырпыци	122		70 - 100								
Lab Sample ID: LCSD 880-573	313/3-A					Clie	ent San	nple ID: L	ab Control Sa	mple	Dup
Matrix: Solid									Prep Type	: Tota	al/N/
Analysis Batch: 57440									Prep Ba	tch: 5	731:
			Spike	LCSD	LCSD				• %Rec		RPI
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits F	RPD	Limi
Gasoline Range Organics			1000	970.7		mg/Kg		97	70 - 130	5	20
GRO)-C6-C10 Diesel Range Organics (Over			1000	902.9		mg/Kg		90	70 - 130	13	2

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	124		70 - 130

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Laionno	ounobuu

Job ID: 890-4903-1

SDG: 03D2024198

Lab Sample ID: 890-4911-A-21-E MS

Lab Sample ID: 890-4911-A-21-F MSD

Matrix: Solid

(GRO)-C6-C10

Analyte

C10-C28)

Surrogate

o-Terphenyl

1-Chlorooctane

Matrix: Solid

Analysis Batch: 57440

Analysis Batch: 57440

Gasoline Range Organics

Diesel Range Organics (Over

QC Sample Results

MS MS

MSD MSD

1106

1270

Result Qualifier

Unit

mg/Kg

mg/Kg

D

%Rec

107

127

Spike

Added

1000

1000

Limits

70 - 130

70 - 130

Spike

Client: Ensolum Project/Site: Red Raider BKS State Com 001

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

Sample Sample

<50.1 U

<50.1 U

130

MS MS %Recovery Qualifier

139 S1+

Sample Sample

Result Qualifier

Job ID: 890-4903-1 SDG: 03D2024198

Prep Type: Total/NA

Prep Batch: 57313

RPD

7

8

Client Sample ID: Matrix Spike

%Rec

Limits

70 - 130

70 - 130

5
7
8
9

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 57559

Cuto	
al/NA	
7313	
RPD	
Limit	
20	

20

Prep	Type: Total/NA
Pre	o Batch: 57313
%Rec	RPI

Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	1000	1028		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	<50.1	U	1000	1169		mg/Kg		117	70 - 130
	MSD	MSD							

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	128		70 - 130

Lab Sample ID: MB 880-57559/1-A
Matrix: Solid
Analysis Batch: 57551

	MB	МВ						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/13/23 07:30	07/13/23 07:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/13/23 07:30	07/13/23 07:44	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/13/23 07:30	07/13/23 07:44	1
Total TPH	<50.0	U	50.0	mg/Kg		07/13/23 07:30	07/13/23 07:44	1

	MB MB				
Surrogate %	Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	127	70 - 130	07/13/23 07:30	07/13/23 07:44	1
o-Terphenyl	110	70 - 130	07/13/23 07:30	07/13/23 07:44	1

Lab Sample ID: LCS 880-57559/2-A Matrix: Solid Analysis Batch: 57551

Analysis Batch: 57551							Prep	Batch: 57559
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	899.4		mg/Kg		90	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	866.4		mg/Kg		87	70 - 130	
C10-C28)								

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Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Released to Imaging: 8/30/2023 3:09:30 PM

QC Sample Results

Client: Ensolum Project/Site: Red Raider BKS State Com 001

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

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Job ID: 890-4903-1 SDG: 03D2024198

Lab Sample ID: LCS 880-575	559/2-A						Client	Sample	BID: Lab Co	ontrol Sa	ampl
Matrix: Solid									Prep T	Type: Tot	tal/N
Analysis Batch: 57551										Batch:	
	LCS	LCS									
Surrogate	%Recovery		Limits								
1-Chlorooctane	<u>90</u>		70 - 130								
p-Terphenyl	82		70 - 130								
						0					
Lab Sample ID: LCSD 880-5	/559/3-A					Clier	nt Sam	ipie iD: i	Lab Contro		
Matrix: Solid										ype: Tot	
Analysis Batch: 57551										Batch:	
			Spike		LCSD				%Rec		RF
Analyte			Added		Qualifier	Unit	D	%Rec	Limits	RPD	Lin
Gasoline Range Organics GRO)-C6-C10			1000	846.8		mg/Kg		85	70 - 130	6	2
Diesel Range Organics (Over			1000	802.8		mg/Kg		80	70 - 130	8	
C10-C28)											
	LCSD	LCSD									
urrogate		Qualifier	Limits								
-Chlorooctane			70 - 130								
-Terphenyl	89		70 - 130								
_ab Sample ID: 890-4903-6 I	NS								Client Sar	mple ID:	FS
Matrix: Solid									Prep T	Type: Tot	tal/N
Analysis Batch: 57551									Prep	Batch:	575
-	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Basoline Range Organics	<49.9	U F2	998	1114		mg/Kg		107	70 - 130		
GRO)-C6-C10											
iesel Range Organics (Over	<49.9	U	998	1178		mg/Kg		118	70 - 130		
C10-C28)											
C10-C28)	MS	MS									
			Limits								
Surrogate	%Recovery		Limits								
Surrogate -Chlorooctane	%Recovery	Qualifier									
Surrogate -Chlorooctane -Terphenyl		Qualifier	70 - 130						Client Sar	mple ID:	FS
Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 890-4903-6 I		Qualifier	70 - 130						Client Sar Prep T		
Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 890-4903-6 M Matrix: Solid		Qualifier	70 - 130						Prep T	· Type: Tot	al/N
Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 890-4903-6 M Matrix: Solid	%Recovery 131 105 MSD	Qualifier S1+	70 - 130 70 - 130	MSD	MSD				Prep T Prep		tal/N 575
Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 890-4903-6 Matrix: Solid Analysis Batch: 57551	%Recovery 131 105 MSD Sample	Qualifier S1+	70 - 130		MSD Qualifier	Unit	D	%Rec	Prep T	· Type: Tot	tal/N 575 RI
Surrogate (-Chlorooctane -Terphenyl Lab Sample ID: 890-4903-6 Matrix: Solid Analysis Batch: 57551 Analyte	%Recovery 131 105 MSD Sample	Qualifier S1+ Sample Qualifier	70 - 130 70 - 130 Spike		Qualifier	- Unit mg/Kg	D	<u>%Rec</u> 84	Prep T Prep %Rec	Spe: Tot Batch:	tal/N 575 Ri Lir
Surrogate (-Chlorooctane -Terphenyl Lab Sample ID: 890-4903-6 M Matrix: Solid Analysis Batch: 57551 Analyte Gasoline Range Organics	%Recovery 131 105 MSD Sample Result	Qualifier S1+ Sample Qualifier	70 - 130 70 - 130 Spike Added	Result	Qualifier		<u> </u>		Prep T Prep %Rec Limits	Batch:	tal/N 575 Ri Lir
Surrogate -Chlorooctane -Terphenyl Lab Sample ID: 890-4903-6 M Matrix: Solid Analysis Batch: 57551 Malyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 131 105 MSD Sample Result	Qualifier S1+ Sample Qualifier U F2	70 - 130 70 - 130 Spike Added	Result	Qualifier		<u>D</u>		Prep T Prep %Rec Limits	Batch:	tal/N 575 Ri Lir
C10-C28) Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 890-4903-6 I Matrix: Solid Analysis Batch: 57551 Analyte Gasoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	%Recovery 131 105 MSD Sample 	Qualifier S1+ Sample Qualifier U F2 U	70 - 130 70 - 130 Spike Added 997	Result 882.1	Qualifier	mg/Kg	<u>D</u>	84	Prep T Prep %Rec Limits 70 - 130	RPD 23	tal/N 575 RF Lin
Surrogate I-Chlorooctane D-Terphenyl Lab Sample ID: 890-4903-6 M Matrix: Solid Analysis Batch: 57551 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	%Recovery 131 105 MSD 	Qualifier S1+ Sample Qualifier U F2 U MSD	70 - 130 70 - 130 Spike Added 997 997	Result 882.1	Qualifier	mg/Kg	D	84	Prep T Prep %Rec Limits 70 - 130	RPD 23	tal/N 575 RF Lin
Surrogate 1-Chlorooctane 2-Terphenyl Lab Sample ID: 890-4903-6 M Matrix: Solid Analysis Batch: 57551 Analyte Gasoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over	%Recovery 131 105 MSD Sample 	Qualifier S1+ Sample Qualifier U F2 U MSD	70 - 130 70 - 130 Spike Added 997	Result 882.1	Qualifier	mg/Kg	<u>D</u>	84	Prep T Prep %Rec Limits 70 - 130	RPD 23	tal/N

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QC Sample Results

Job ID: 890-4903-1 SDG: 03D2024198

Client: Ensolum Project/Site: Red Raider BKS State Com 001

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57291/1-A											Client S	Sample ID:	Method	Blank
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 57417														
		MB I												
Analyte			Qualifier		RL		Un	-	<u>D</u>	Р	repared	Analy		Dil Fac
Chloride	<	<5.00 l	U		5.00		mg	J/Kg				07/11/23	12:22	
Lab Sample ID: LCS 880-57291/2-/	4								Cli	ient	Sample	ID: Lab C	ontrol S	ample
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 57417														
				Spike		LCS	LCS					%Rec		
Analyte			<u></u>	Added			Qualifie	r Unit		D	%Rec	Limits		
Chloride				250		246.0		mg/Kg			98	90 - 110		
Lab Sample ID: LCSD 880-57291/3	-A							CI	ient S	Sam	ple ID:	Lab Contro	ol Samp	le Dur
Matrix: Solid												Prep	Type: S	olubl
Analysis Batch: 57417														
				Spike		LCSD	LCSD					%Rec		RPD
Analyte				Added		Result	Qualifier	r Unit		D	%Rec	Limits	RPD	Limi
Chloride				250		247.4		mg/Kg			99	90 - 110	1	20
Lab Sample ID: 890-4903-7 MS												Client Sa	mple ID	: FS07
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 57417														
	Sample	Samp	le	Spike		MS	MS					%Rec		
Analyte	Result	Qualif	fier	Added		Result	Qualifier	r Unit		D	%Rec	Limits		
Chloride	131	F1		250		349.0	F1	mg/Kg			87	90 - 110		
Lab Sample ID: 890-4903-7 MSD												Client Sa	mple ID	: FS07
Matrix: Solid													· Type: S	
Analysis Batch: 57417														
		Sama	lo	Spike		MSD	MSD					%Rec		RPD
· · · · · · · · · · · · · · · · · · ·	Sample	Samp		opine										
Analyte	Sample Result			Added		Result	Qualifie	r Unit		D	%Rec	Limits	RPD	Limi

Client: Ensolum Project/Site: Red Raider BKS State Com 001

GC VOA

Prep Batch: 57294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4903-1	FS01	Total/NA	Solid	5035	
890-4903-2	FS02	Total/NA	Solid	5035	
890-4903-3	FS03	Total/NA	Solid	5035	
890-4903-4	FS04	Total/NA	Solid	5035	
890-4903-5	FS05	Total/NA	Solid	5035	
890-4903-6	FS06	Total/NA	Solid	5035	
890-4903-7	FS07	Total/NA	Solid	5035	
890-4903-8	FS08	Total/NA	Solid	5035	
890-4903-9	FS09	Total/NA	Solid	5035	
890-4903-10	FS10	Total/NA	Solid	5035	
890-4903-11	SS05A	Total/NA	Solid	5035	
890-4903-12	SS07A	Total/NA	Solid	5035	
890-4903-13	SS08A	Total/NA	Solid	5035	
890-4903-14	SS10	Total/NA	Solid	5035	
MB 880-57294/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-57294/1-B	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57294/2-B	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30536-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-30536-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 57380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4903-1	FS01	Total/NA	Solid	8021B	57294
890-4903-2	FS02	Total/NA	Solid	8021B	57294
890-4903-3	FS03	Total/NA	Solid	8021B	57294
890-4903-4	FS04	Total/NA	Solid	8021B	57294
890-4903-5	FS05	Total/NA	Solid	8021B	57294
890-4903-6	FS06	Total/NA	Solid	8021B	57294
890-4903-7	FS07	Total/NA	Solid	8021B	57294
890-4903-8	FS08	Total/NA	Solid	8021B	57294
890-4903-9	FS09	Total/NA	Solid	8021B	57294
890-4903-10	FS10	Total/NA	Solid	8021B	57294
890-4903-11	SS05A	Total/NA	Solid	8021B	57294
890-4903-12	SS07A	Total/NA	Solid	8021B	57294
890-4903-13	SS08A	Total/NA	Solid	8021B	57294
890-4903-14	SS10	Total/NA	Solid	8021B	57294
890-4903-15	SS10A	Total/NA	Solid	8021B	57389
MB 880-57294/5-B	Method Blank	Total/NA	Solid	8021B	57294
MB 880-57389/5-A	Method Blank	Total/NA	Solid	8021B	57389
LCS 880-57294/1-B	Lab Control Sample	Total/NA	Solid	8021B	57294
LCS 880-57389/1-A	Lab Control Sample	Total/NA	Solid	8021B	57389
LCSD 880-57294/2-B	Lab Control Sample Dup	Total/NA	Solid	8021B	57294
LCSD 880-57389/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57389
880-30536-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	57294
880-30536-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	57294
880-30539-A-2-A MS	Matrix Spike	Total/NA	Solid	8021B	57389
880-30539-A-2-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	57389
rep Batch: 57389					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4903-15	SS10A	Total/NA	Solid	5035	

Job ID: 890-4903-1 SDG: 03D2024198

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Client: Ensolum Project/Site: Red Raider BKS State Com 001

GC VOA (Continued)

Prep Batch: 57389 (Continued)

Lab Sample ID MB 880-57389/5-A	Client Sample ID Method Blank	Prep Type Total/NA	Matrix Solid	Method 5035	Prep Batch
LCS 880-57389/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57389/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30539-A-2-A MS	Matrix Spike	Total/NA	Solid	5035	
880-30539-A-2-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 57483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4903-1	FS01	Total/NA	Solid	Total BTEX	
890-4903-2	FS02	Total/NA	Solid	Total BTEX	
890-4903-3	FS03	Total/NA	Solid	Total BTEX	
890-4903-4	FS04	Total/NA	Solid	Total BTEX	
890-4903-5	FS05	Total/NA	Solid	Total BTEX	
890-4903-6	FS06	Total/NA	Solid	Total BTEX	
890-4903-7	FS07	Total/NA	Solid	Total BTEX	
890-4903-8	FS08	Total/NA	Solid	Total BTEX	
890-4903-9	FS09	Total/NA	Solid	Total BTEX	
890-4903-10	FS10	Total/NA	Solid	Total BTEX	
890-4903-11	SS05A	Total/NA	Solid	Total BTEX	
890-4903-12	SS07A	Total/NA	Solid	Total BTEX	
890-4903-13	SS08A	Total/NA	Solid	Total BTEX	
890-4903-14	SS10	Total/NA	Solid	Total BTEX	
890-4903-15	SS10A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 57313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4903-1	FS01	Total/NA	Solid	8015NM Prep	
890-4903-2	FS02	Total/NA	Solid	8015NM Prep	
890-4903-3	FS03	Total/NA	Solid	8015NM Prep	
890-4903-4	FS04	Total/NA	Solid	8015NM Prep	
890-4903-5	FS05	Total/NA	Solid	8015NM Prep	
MB 880-57313/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57313/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57313/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4911-A-21-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4911-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 57440

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4903-1	FS01	Total/NA	Solid	8015B NM	57313
890-4903-2	FS02	Total/NA	Solid	8015B NM	57313
890-4903-3	FS03	Total/NA	Solid	8015B NM	57313
890-4903-4	FS04	Total/NA	Solid	8015B NM	57313
890-4903-5	FS05	Total/NA	Solid	8015B NM	57313
MB 880-57313/1-A	Method Blank	Total/NA	Solid	8015B NM	57313
LCS 880-57313/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57313
LCSD 880-57313/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57313
890-4911-A-21-E MS	Matrix Spike	Total/NA	Solid	8015B NM	57313
890-4911-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	57313

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Job ID: 890-4903-1 SDG: 03D2024198

Client: Ensolum Project/Site: Red Raider BKS State Com 001

GC Semi VOA

Analysis Batch: 57551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4903-6	FS06	Total/NA	Solid	8015B NM	57559
890-4903-7	FS07	Total/NA	Solid	8015B NM	57559
890-4903-8	FS08	Total/NA	Solid	8015B NM	57559
890-4903-9	FS09	Total/NA	Solid	8015B NM	57559
890-4903-10	FS10	Total/NA	Solid	8015B NM	57559
890-4903-11	SS05A	Total/NA	Solid	8015B NM	57559
890-4903-12	SS07A	Total/NA	Solid	8015B NM	57559
890-4903-13	SS08A	Total/NA	Solid	8015B NM	57559
890-4903-14	SS10	Total/NA	Solid	8015B NM	57559
890-4903-15	SS10A	Total/NA	Solid	8015B NM	57559
MB 880-57559/1-A	Method Blank	Total/NA	Solid	8015B NM	57559
LCS 880-57559/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57559
LCSD 880-57559/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57559
890-4903-6 MS	FS06	Total/NA	Solid	8015B NM	57559
890-4903-6 MSD	FS06	Total/NA	Solid	8015B NM	57559
_					

Prep Batch: 57559

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4903-6	FS06	Total/NA	Solid	8015NM Prep	
890-4903-7	FS07	Total/NA	Solid	8015NM Prep	
890-4903-8	FS08	Total/NA	Solid	8015NM Prep	
890-4903-9	FS09	Total/NA	Solid	8015NM Prep	
890-4903-10	FS10	Total/NA	Solid	8015NM Prep	
890-4903-11	SS05A	Total/NA	Solid	8015NM Prep	
890-4903-12	SS07A	Total/NA	Solid	8015NM Prep	
890-4903-13	SS08A	Total/NA	Solid	8015NM Prep	
890-4903-14	SS10	Total/NA	Solid	8015NM Prep	
890-4903-15	SS10A	Total/NA	Solid	8015NM Prep	
MB 880-57559/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57559/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57559/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4903-6 MS	FS06	Total/NA	Solid	8015NM Prep	
890-4903-6 MSD	FS06	Total/NA	Solid	8015NM Prep	

Analysis Batch: 57609

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4903-1	FS01	Total/NA	Solid	8015 NM	
890-4903-2	FS02	Total/NA	Solid	8015 NM	
890-4903-3	FS03	Total/NA	Solid	8015 NM	
890-4903-4	FS04	Total/NA	Solid	8015 NM	
890-4903-5	FS05	Total/NA	Solid	8015 NM	
890-4903-6	FS06	Total/NA	Solid	8015 NM	
890-4903-7	FS07	Total/NA	Solid	8015 NM	
890-4903-8	FS08	Total/NA	Solid	8015 NM	
890-4903-9	FS09	Total/NA	Solid	8015 NM	
890-4903-10	FS10	Total/NA	Solid	8015 NM	
890-4903-11	SS05A	Total/NA	Solid	8015 NM	
890-4903-12	SS07A	Total/NA	Solid	8015 NM	
890-4903-13	SS08A	Total/NA	Solid	8015 NM	
890-4903-14	SS10	Total/NA	Solid	8015 NM	
890-4903-15	SS10A	Total/NA	Solid	8015 NM	

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Job ID: 890-4903-1 SDG: 03D2024198

Client: Ensolum Project/Site: Red Raider BKS State Com 001

HPLC/IC

Leach Batch: 57291

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-4903-1	FS01	Soluble	Solid	DI Leach	
890-4903-2	FS02	Soluble	Solid	DI Leach	5
890-4903-3	FS03	Soluble	Solid	DI Leach	
890-4903-4	FS04	Soluble	Solid	DI Leach	
890-4903-5	FS05	Soluble	Solid	DI Leach	
890-4903-6	FS06	Soluble	Solid	DI Leach	
890-4903-7	FS07	Soluble	Solid	DI Leach	
890-4903-8	FS08	Soluble	Solid	DI Leach	8
890-4903-9	FS09	Soluble	Solid	DI Leach	_
890-4903-10	FS10	Soluble	Solid	DI Leach	9
890-4903-11	SS05A	Soluble	Solid	DI Leach	
890-4903-12	SS07A	Soluble	Solid	DI Leach	
890-4903-13	SS08A	Soluble	Solid	DI Leach	
890-4903-14	SS10	Soluble	Solid	DI Leach	
890-4903-15	SS10A	Soluble	Solid	DI Leach	
MB 880-57291/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57291/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57291/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4903-7 MS	FS07	Soluble	Solid	DI Leach	
890-4903-7 MSD	FS07	Soluble	Solid	DI Leach	

Analysis Batch: 57417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4903-1	FS01	Soluble	Solid	300.0	57291
890-4903-2	FS02	Soluble	Solid	300.0	57291
890-4903-3	FS03	Soluble	Solid	300.0	57291
890-4903-4	FS04	Soluble	Solid	300.0	57291
890-4903-5	FS05	Soluble	Solid	300.0	57291
890-4903-6	FS06	Soluble	Solid	300.0	57291
890-4903-7	FS07	Soluble	Solid	300.0	57291
890-4903-8	FS08	Soluble	Solid	300.0	57291
890-4903-9	FS09	Soluble	Solid	300.0	57291
890-4903-10	FS10	Soluble	Solid	300.0	57291
890-4903-11	SS05A	Soluble	Solid	300.0	57291
890-4903-12	SS07A	Soluble	Solid	300.0	57291
890-4903-13	SS08A	Soluble	Solid	300.0	57291
890-4903-14	SS10	Soluble	Solid	300.0	57291
890-4903-15	SS10A	Soluble	Solid	300.0	57291
MB 880-57291/1-A	Method Blank	Soluble	Solid	300.0	57291
LCS 880-57291/2-A	Lab Control Sample	Soluble	Solid	300.0	57291
LCSD 880-57291/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57291
890-4903-7 MS	FS07	Soluble	Solid	300.0	57291
890-4903-7 MSD	FS07	Soluble	Solid	300.0	57291

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Job ID: 890-4903-1 SDG: 03D2024198

Job ID: 890-4903-1 SDG: 03D2024198

Lab Sample ID: 890-4903-1

Date Collected: 07/06/23 09:40 Date Received: 07/06/23 13:51

Client Sample ID: FS01

Client: Ensolum

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 01:43	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/13/23 13:02	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	57313	07/10/23 13:23	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57440	07/12/23 17:27	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 13:09	SMC	EET MID

Client Sample ID: FS02

Date Collected: 07/06/23 09:45

Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 02:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/13/23 13:02	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	57313	07/10/23 13:23	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57440	07/12/23 17:50	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 13:24	SMC	EET MID

Client Sample ID: FS03

Date Collected: 07/06/23 09:50

Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 02:24	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/13/23 13:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	57313	07/10/23 13:23	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57440	07/12/23 18:13	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 13:29	SMC	EET MID

Client Sample ID: FS04 Date Collected: 07/06/23 09:55 Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 02:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID

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Matrix: Solid

5 9

Lab Sample ID: 890-4903-2 Matrix: Solid

Lab Sample ID: 890-4903-3

Lab Sample ID: 890-4903-4

Matrix: Solid

Matrix: Solid

Job ID: 890-4903-1 SDG: 03D2024198

Matrix: Solid

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4903-4 Matrix: Solid

Lab Sample ID: 890-4903-6

Lab Sample ID: 890-4903-7

Date Collected: 07/06/23 09:55 Date Received: 07/06/23 13:51

Client Sample ID: FS04

Client: Ensolum

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			57609	07/13/23 13:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	57313	07/10/23 13:23	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57440	07/12/23 18:35	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 13:34	SMC	EET MID

Client Sample ID: FS05 Date Collected: 07/06/23 10:00

Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 04:07	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/13/23 13:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	57313	07/10/23 13:23	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57440	07/12/23 18:58	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 13:39	SMC	EET MID

Client Sample ID: FS06

Date Collected: 07/06/23 10:05 Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 04:28	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/14/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	57559	07/13/23 08:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57551	07/13/23 10:49	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 13:45	SMC	EET MID

Client Sample ID: FS07 Date Collected: 07/06/23 10:10

Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 04:49	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/14/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	57559	07/13/23 08:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57551	07/13/23 11:54	SM	EET MID

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5 Lab Sample ID: 890-4903-5 9

Job ID: 890-4903-1 SDG: 03D2024198

Lab Sample ID: 890-4903-7

Lab Sample ID: 890-4903-8

Lab Sample ID: 890-4903-9

Client Sample ID: FS07 Date Collected: 07/06/23 10:10

Client: Ensolum

Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 13:50	SMC	EET MID

Client Sample ID: FS08

Date Collected: 07/06/23 10:15 Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 05:09	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/14/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	57559	07/13/23 08:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57551	07/13/23 12:17	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 14:05	SMC	EET MID

Client Sample ID: FS09 Date Collected: 07/06/23 10:20 Date Received: 07/06/23 13:51

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA Prep 5035 5.03 g 5 mL 57294 07/11/23 10:06 EL EET MID Total/NA 8021B 5 mL 5 mL 07/12/23 05:30 EET MID Analysis 1 57380 SM Total/NA Analysis Total BTEX 1 57483 07/12/23 10:21 SM EET MID Total/NA Analysis 8015 NM 1 57609 07/14/23 12:10 SM EET MID Total/NA Prep 8015NM Prep 10.04 g 10 mL 57559 07/13/23 08:00 EET MID AM Total/NA Analysis EET MID 8015B NM 1 1 uL 1 uL 57551 07/13/23 12:39 SM Soluble Leach DI Leach 4.99 g 50 mL 57291 07/10/23 09:53 KS EET MID Soluble Analysis 300.0 1 57417 07/11/23 14:10 SMC EET MID

Client Sample ID: FS10 Date Collected: 07/06/23 10:25 Date Received: 07/06/23 13:51

Lab Sample ID: 890-4903-10 Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 05:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/14/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	57559	07/13/23 08:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57551	07/13/23 13:01	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 14:26	SMC	EET MID

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Matrix: Solid

Matrix: Solid

Matrix: Solid

9

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Batch

Туре

Prep

Analysis

Analysis

Analysis

Analysis

Analysis

Leach

Prep

Batch

Method

5035

8021B

Total BTEX

8015NM Prep

8015B NM

DI Leach

300.0

8015 NM

Client Sample ID: SS05A

Date Collected: 07/06/23 10:30

Date Received: 07/06/23 13:51

Client Sample ID: SS07A Date Collected: 07/06/23 10:35

Date Received: 07/06/23 13:51

Client: Ensolum

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Soluble

Soluble

Initial

Amount

4.97 g

5 mL

10.04 g

1 uL

5.05 g

Final

Amount

5 mL

5 mL

10 mL

1 uL

50 mL

Batch

57294

57380

57483

57609

57559

57551

57291

57417

Number

Dil

1

1

1

1

1

Factor

Run

Job ID: 890-4903-1 SDG: 03D2024198

Lab Sample ID: 890-4903-11

Analyst

EL

SM

SM

SM

AM

SM

ĸs

SMC

Lab Sample ID: 890-4903-13

Lab Sample ID: 890-4903-14

Matrix: Solid

Lab

EET MID

Matrix: Solid

5 9

Lab Sample ID: 890-4903-12 Matrix: Solid

IL

Prepared

or Analyzed

07/11/23 10:06

07/12/23 06:11

07/12/23 10:21

07/14/23 12:10

07/13/23 08:00

07/13/23 13:23

07/10/23 09:53

07/11/23 14:31

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 06:32	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/14/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	57559	07/13/23 08:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57551	07/13/23 13:45	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 14:36	SMC	EET MID

Client Sample ID: SS08A

Date Collected: 07/06/23 10:40

Date	Recei	ved:	07/06/23	13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 06:53	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/14/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	57559	07/13/23 08:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57551	07/13/23 14:06	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 14:41	SMC	EET MID

Client Sample ID: SS10 Date Collected: 07/06/23 10:45 Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57294	07/11/23 10:06	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/12/23 07:13	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID

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Matrix: Solid

Job ID: 890-4903-1 SDG: 03D2024198

Client Sample ID: SS10

Client: Ensolum

Date Collected: 07/06/23 10:45 Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			57609	07/14/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	57559	07/13/23 08:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57551	07/13/23 14:29	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 14:46	SMC	EET MID

Client Sample ID: SS10A Date Collected: 07/06/23 10:50

Date Received: 07/06/23 13:51

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57389	07/11/23 10:19	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57380	07/11/23 19:32	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57483	07/12/23 10:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			57609	07/14/23 12:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	57559	07/13/23 08:00	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57551	07/13/23 14:51	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57291	07/10/23 09:53	KS	EET MID
Soluble	Analysis	300.0		1			57417	07/11/23 14:51	SMC	EET MID

Laboratory References:

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

Lab Sample ID: 890-4903-14

Lab Sample ID: 890-4903-15

Matrix: Solid

Matrix: Solid

Accreditation/Certification Summary

Client: Ensolum Project/Site: Red Raider BKS State Com 001

Laboratory: Eurofins Midland

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

ıthority	P	rogram	Identification Number	Expiration Date		
xas	N	IELAP	T104704400-23-26	06-30-24		
• ,		out the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for w		
the agency does not of		Matrix	Analyte			
Analysis Method	er certification. Prep Method	Matrix	Analyte Total TPH			
Analysis Method 8015 NM	Prep Method	Solid	Total TPH			
Analysis Method						

7/14/2023

Job ID: 890-4903-1

SDG: 03D2024198

Method Summary

Client: Ensolum Project/Site: Red Raider BKS State Com 001 Job ID: 890-4903-1 SDG: 03D2024198

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 Refe	rences:		
ASTM = A	STM International		
EPA = US	Environmental Protection Agency		
SW846 = '	'Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Editio	n, November 1986 And Its Updates.	
TAL SOP :	 TestAmerica Laboratories, Standard Operating Procedure 		
Laboratory R	eferences:		
EET MID :	Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440		

Eurofins Carlsbad

Released to Imaging: 8/30/2023 3:09:30 PM

Sample Summary

Client: Ensolum Project/Site: Red Raider BKS State Com 001

ab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
390-4903-1	FS01	Solid	07/06/23 09:40	07/06/23 13:51	1.0'
390-4903-2	FS02	Solid	07/06/23 09:45	07/06/23 13:51	1.0'
390-4903-3	FS03	Solid	07/06/23 09:50	07/06/23 13:51	1.0'
390-4903-4	FS04	Solid	07/06/23 09:55	07/06/23 13:51	1.0'
390-4903-5	FS05	Solid	07/06/23 10:00	07/06/23 13:51	1.0'
390-4903-6	FS06	Solid	07/06/23 10:05	07/06/23 13:51	1.0'
390-4903-7	FS07	Solid	07/06/23 10:10	07/06/23 13:51	1.0'
390-4903-8	FS08	Solid	07/06/23 10:15	07/06/23 13:51	1.0'
390-4903-9	FS09	Solid	07/06/23 10:20	07/06/23 13:51	1.0'
90-4903-10	FS10	Solid	07/06/23 10:25	07/06/23 13:51	1.0'
390-4903-11	SS05A	Solid	07/06/23 10:30	07/06/23 13:51	1.0'
390-4903-12	SS07A	Solid	07/06/23 10:35	07/06/23 13:51	1.0'
390-4903-13	SS08A	Solid	07/06/23 10:40	07/06/23 13:51	1.0'
390-4903-14	SS10	Solid	07/06/23 10:45	07/06/23 13:51	0.5
390-4903-15	SS10A	Solid	07/06/23 10:50	07/06/23 13:51	1.0'

Received by OCD: 8/22/2023 10:19:11 AM

13

7/14/2023

eurofins **Environment Testing** Xenco

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:

Decident Management	Hadli					Dillion	te difference		Kalai	lonnir										M	lork C	rder	Comments			
Project Manager:	-	e Green				1	if differen			Jennir							Dram									
Company Name:		lum, LLC					ny Name	ə:	Ensolum, LLC 601 N Marienfeld St Suite 400						-	Program: UST/PST PRP Brownfields RRC Superfund State of Project:										
Address:	-	Marienf		uite 400		Addres							400						-	(T) -	uni III					
City, State ZIP:	Midla	nd, TX 7	9701		T	City, St	ate ZIP:		Midla	nd, TX	(79701	1				_		_					ADaPT O Other:			
Phone:	432-5	557-8895			Email	hgreen	@enso	lum.co	om, kj	ennin	gs@e	nsolun	n.com				Delive	erables	s: EDD			ADar		iner:		
Project Name:	Red	Raider E	KS Sta	te Com 001	Turr	n Around	d						1	ANAL	YSIS	REQ	UEST						Pres	ervative Codes		
Project Number:		030	0202419	98	Routine	🗌 Rus	h	Pres. Code															None: NO	DI Water: H ₂		
Project Location:		32.186	6,-103.	5235	Due Date:																	Τ	Cool: Cool	MeOH: Me		
Sampler's Name:			Van Pa		TAT starts th	e day rec	eived by	1															HCL: HC	HNO3: HN		
°O #:				-	the lab, if re			2															H ₂ S0 ₄ : H ₂	NaOH: Na		
SAMPLE RECE	IPT	Temp	Blank:	Yes No	Wet Ice:	Yes	No	Parameters	6					1100 AU		C inter and c	A ANNA ANNA ANNA ANNA ANNA ANNA ANNA A					1	H ₃ PO ₄ : HP			
Samples Received	ntact:	Yes	No	Thermometer	rID:	Pino	FOI	Tar	300.	1						HKM		11/11					NaHSO₄: N			
Cooler Custody Sea	ls:	Yes N	ANT	Correction Fa	actor:		.2	Pa	Ä					11111									Na ₂ S ₂ O ₃ : N	laSO ₃		
Sample Custody Se	als:	Yes No	N/A	Temperature	Reading:	3	.6		S (E		=								1000				Zn Acetate			
Total Containers:				Corrected Te	mperature:	3	.4		E E	015)	(8021)		-	890-4	903 C	Chain o	of Cust	lody					NaOH+Asc	corbic Acid: SAPC		
Sample Ide	ntificat	ion	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp		CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (1	Sam	ple Comments		
FS	01		Soil	7/6/2023	940	1.0'	Comp	1	x	x	x															
FS)2		Soil	7/6/2023	945	1.0'	Comp	1	x	x	x															
FS)3		Soil	7/6/2023	950	1.0'	Comp	1	x	x	x				1											
FS)4		Soil	7/6/2023	955	1.0'	Comp	1	x	x	x															
FS)5		Soil	7/6/2023	1000	1.0'	Comp	1	x	x	x															
FS)6		Soil	7/6/2023	1005	1.0'	Comp	1	x	x	x															
FS)7		Soil	7/6/2023	1010	1.0'	Comp	1	x	x	x															
FSC)8		Soil	7/6/2023	1015	1.0'	Comp		x	X	x															
FSC)9		Soil	7/6/2023	1020	1.0'	Comp	1	x	x	x															
FS1	0		Soil	7/6/2023	1025	1.0'	Comp	1	x	x	x															
Total 200.7 / 6 Circle Method(s) a		200.8 / 6 tal(s) to b			RCRA 13P TCLP/S															Se			la Sr Ti Sr /245.1/74			
otice: Signature of this service. Eurofins Xen Eurofins Xenco. A mi	co will be	e liable only	for the cos	st of samples and	shall not assu	me anv res	sponsibilit	v for an	v losses	s or exp	enses ir	ncurred I	by the clie	ent if su	ich los	ses are	due to d	circums	tances t	beyond	the cont	trol				
Relinquished by	: (Sigr	nature)	1	Receive	d by: (Signa	ture)	-		Date	/Time)	Re	linquis	hed b	y: (S	ignatu	ire)		Rece	eived	by: (S	ignat	ure)	Date/Time		
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Released to Imaging: 8/30/2023 3:09:30 PM

Received by OCD: 8/22/2023 10:19:11 AM

Environment Testing

Xenco

7/14/2023

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: _

Project Manager:	Hadli	ie Green				Bill to: (if differen	it)	Kalei	Jennir	ngs									W	ork Or	der	Comments			
Company Name:	Enso	lum, LLC				Compa	ny Name	э:	Enso	lum, Ll	LC						Progr	am: U	ST/PS	TOP		Brow	nfields 🗌 R	RC Superfund		
Address:	601 N	N Marienfe	eld St S	uite 400		Addres	s:		601 N	Marie	enfeld \$	St Suite	400				State									
City, State ZIP:	Midla	and, TX 79	9701			City, Sta	ate ZIP:		Midla	nd, TX	79701	1					Repor	ting: L	evel II	Le	vel III] ps	T/UST TF			
Phone:	1	557-8895			Email:	hgreen		lum.c	om, kj	ennin	gs@e	nsolur	n.com				Delive	rables	EDD		A	ADaP	Ot Ot	her:		
Project Name:	Red	Raider B	KS Sta	te Com 001	Turr	Around	4							ANAL	YSIS	REQ	UEST						Prese	rvative Codes		
Project Number:		030	202419	98	Routine	🗌 Rus	h	Pres. Code															None: NO	DI Water: H2		
Project Location:		32 186	6,-103.	5235	Due Date:																		Cool: Cool	MeOH: Me		
ampler's Name:			Van Pa		TAT starts th	e dav rec	eived by	1										-					HCL: HC	HNO3: HN		
0#:					the lab, if rea			2										-					H ₂ SO ₄ : H ₂ NaOH: N			
AMPLE RECEI	PT	Temp	Blank:	Yes No	Wet Ice:	Yes	No	lete	6														H ₃ PO ₄ : HP			
amples Received In	ntact:	Yes	No	Thermometer	ID:			Tar	300									3			-		NaHSO4: N	ABIS		
cooler Custody Seal	s:	Yes No	N/A	Correction Fa	iqtor:	1		Pa	(EPA: 300.0)														Na ₂ S ₂ O ₃ : Na	aSO ₃		
Sample Custody Sea	ils:	Yes No		Temperature		51					=		1										Zn Acetate+			
otal Containers:				Corrected Te	mperature:				E E	015)	(8021)			-									NaOH+Asco	orbic Acid: SAPC		
Sample Ider	tificat	ion	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont		TPH (8015)	BTEX (Samp	le Comments		
SSO	5A		Soil	7/6/2023	1030	1.0'	Comp	1	x	x	x															
SSOT	'A		Soil	7/6/2023	1035	1.0'	Comp	1	x	x	x															
SSO	BA		Soil	7/6/2023	1040	1.0'	Comp	1	x	×	x															
SS1	0		Soil	7/6/2023	1045	0.5'	Comp	1	x	x	x															
SS10	A	_	Soil	7/6/2023	1050	1.0'	Comp	1	x	x	×					_										
					~	0	H2	E																		
				14	p la	at					-		-													
					•																					
Total 200.7 / 60 ircle Method(s) al		200.8 / 6			RCRA 13P TCLP / S															Se A			1 a Sr TI Sn / 245.1 / 747			
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service. Eurofins Xend Eurofins Xenco. A min	o will be	e liable only	for the cos	st of samples and	shall not assu	me anv res	ponsibilit	v for an	v losses	s or exp	enses ir	curred	by the cl	ient if su	uch loss	es are d	due to c	ircumst	ances b	eyond t	he contro	ol				
Relinquished by			1	Received	d by: (Signa	ture)			Date	/Time		Re	linqui	shed b	oy: (Sig	gnatu	re)		Rece	eived l	oy: (Sig	gnatu	ле)	Date/Time		
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			-		1							4														

Job Number: 890-4903-1 SDG Number: 03D2024198

List Source: Eurofins Carlsbad

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4903 List Number: 1 Creator: Clifton, Cloe

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	

14

Job Number: 890-4903-1 SDG Number: 03D2024198

List Source: Eurofins Midland

List Creation: 07/10/23 08:30 AM

Login Sample Receipt Checklist

Client: Ensolum

Login Number: 4903 List Number: 2 Creator: Rodriguez, Leticia

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	N/A	

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

14



APPENDIX D

NMOCD Notifications

Released to Imaging: 8/30/2023 3:09:30 PM

From:	Enviro, OCD, EMNRD
То:	Hadlie Green
Cc:	Bratcher, Michael, EMNRD; Velez, Nelson, EMNRD
Subject:	RE: [EXTERNAL] COP - Sampling Notification (Week of 7/3/2023)
Date:	Thursday, June 29, 2023 3:47:18 PM
Attachments:	image005.jpg image006.png image007.png image008.png image009.png

[**EXTERNAL EMAIL**]

Hadlie,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JΗ

Jocelyn Harimon • Environmental Specialist Environmental Bureau EMNRD - Oil Conservation Division 1220 South St. Francis Drive | Santa Fe, NM 87505 (505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov http:// www.emnrd.nm.gov



From: Hadlie Green <hgreen@ensolum.com>
Sent: Thursday, June 29, 2023 8:15 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
Cc: Kalei Jennings <kjennings@ensolum.com>; Peter Van Patten <pvanpatten@ensolum.com>
Subject: [EXTERNAL] COP - Sampling Notification (Week of 7/3/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

ConocoPhillips Company (COP) plans to complete sampling activities at the following site the week of July 3, 2023.

- Red Raider BKS Battery / NAPP2315734307
 - Sampling Date: 7/6/2023 @ 10:00 AM MST
- Brinninstool Unit 3H / NAPP2313138369

• Sampling Date: 7/7/2023 @ 10:00 AM MST

Thank you,



Hadlie Green Project Geologist 432-557-8895 hgreen@ensolum.com Ensolum, LLC



APPENDIX E

Final C-141

Released to Imaging: 8/30/2023 3:09:30 PM

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

Page 102 of 111

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

Incident ID	NAPP2315734307
District RP	
Facility ID	fAPP2203856832
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Jacob Laird	Contact Telephone	(575) 703-5482
Contact email	Jacon.Laird@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2315734307
Contact mailing address	600 West Illinois Avenue, Midlar	nd, Texas 79701	

Location of Release Source

32.1865 Latitude

-103.5246

Longitude (NAD 83 in decimal degrees to 5 decimal places)

Site Name		Red Raider	BKS State 0	01	Site Type	Tank E	Battery		
Date Release Discovered June 1, 2023					API# (if applicable) 30-025-29141				
Unit Letter	Section	Township	Range		County				
J	25	24S	33E		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) 1.284	Volume Recovered (bbls) 0
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

The release was caused by fluid being sent out of the flare due to equipment malfunction resulting in a flare fire on and off the pad.

No fluid was recovered due to the fire burning off any standing fluid.

rm C-141	23 10:19:11 AM State of New Mexico		- 14 - T-	Page 103 of
ge 2	Oil Conservation Divisio	on	Incident ID District RP	NAPP2315734307
			Facility ID	fAPP2203856832
			Application ID	
Was this a major	If YES, for what reason(s) does the reason	sponsible party conside	r this a major release	9
release as defined by	The release involved a fire.	esponsible party conside	i uns a major rerease	·:
19.15.29.7(A) NMAC?				
🔳 Yes 🗌 No				
	notice given to the OCD? By whom? T	-	-	
	was given by Jacob Laird via e	-mail June 1, 2023	at 4:08 PM to s	spills@
sio.state.nm.us an	d ocd.enviro@emnrd.nm.gov.			
	Initia	Dosponso		
		l Response		
The responsibl	e party must undertake the following actions imme	diately unless they could crea	te a safety hazard that wo	uld result in injury
The source of the re	**			
	has been secured to protect human health			
R eleased materials	have been contained via the use of berms			
Teleasea materials	have been contained via the use of bernis	s or dikes, absorbent pad	s, or other containme	ent devices.
	recoverable materials have been remove	· · · ·		ent devices.
All free liquids and		d and managed appropri		ent devices.
All free liquids and	recoverable materials have been remove	d and managed appropri		ent devices.
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All free liquids and If all the actions describ Per 19.15.29.8 B. (4) N has begun, please attack	recoverable materials have been remove ed above have <u>not</u> been undertaken, exp	d and managed appropri lain why: nce remediation immedia dial efforts have been s	ately after discovery uccessfully complete	of a release. If remediation
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Facility Name & Well Number(s						RED RAIDER BKS BATTER	Y	Rele	ease Discov	very Date & Time:	6/1/23 @ 8AM		
Provide any known details about the event						LOSS OF POWER OCCUR TO LOOSE PRESURE AND KNOCK OUT TO SEND FLL	NOT PROVIDING AIR 1		NG #4	Primary Cause (dropdown):	>	Secondary Cause (dropdown):	~
			-			Recovered Volume (bbl.) (if available, not included in volume calculations)	Method of Determination (dropdown)	Release Type (drop	opdown):		ain in Last 24 Hours Iropdown):		ecovered (not included in Ilations, informational):
BU: F	Permian	~	Asse	et Area:	DBE - Asset Avg.		Field Measurement \checkmark	Oil	~		Yes		
				Known	Volume (dropdown):	No							
Known Area (dropdown						~							
					Spi	II Calculation - Subsurface	Spill - Rectangle					Remediation	on Recommendation
Convert Irregular shape into a series of rectangles		Width (ft.)	Average Depth (in.)	On/Off Pad (dropdown)	Soil Spilled-Fluid Saturation (%.)	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)					Total Estimated Contaminated Soil, uncompacted, 25% (yd ³ .)	Current Rule of Thumb - RMR Handover Volume, (yd ³ .)
Rectangle A	18.0	18.0		Off-Pad∕	11.45%	1.20	0.14					0.31	
Rectangle B Rectangle C Rectangle D Rectangle E Rectangle F Rectangle G Rectangle H	45.0	60.0		Off-Pad*	11.45%	10.01 0.00 0.00 0.00 0.00 0.00 0.00 0.0	1.15					2.60 0.00 0.00 0.00 0.00 0.00 0.00 0.00	750
Rectangle I Rectangle J				~		0.00						0.00	

L48 Spill Volume Estimate Form - Fill In Gray Cells

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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?	<u>51-100 (ft bgs)</u>
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
- \boxtimes Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- \boxtimes 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.

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Page 4	Oil Conservation Divis	Oil Conservation Division		
			Facility ID	fAPP2203856832
			Application ID	
regulations all operators ar public health or the environ failed to adequately investi addition, OCD acceptance and/or regulations. Printed Name:Jacob Signature: <i>Jacob</i>	The formation given above is true and complete the required to report and/or file certain releases to the acceptance of a C-141 report by gate and remediate contamination that poses of a C-141 report does not relieve the operation.	se notifications and perform y the OCD does not relieve a threat to groundwater, su tor of responsibility for con Title:Environmer Date:8/17/20	corrective actions for rele the operator of liability sh face water, human health	eases which may endanger ould their operations have or the environment. In deral, state, or local laws
OCD Only Received by: <u>_Shelly W</u>	ells	Date: <u>8/2</u>	2/2023	

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Oil Conservation Division

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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 photographs be notified 2 days prior to liner inspection)	s of the liner integrity if applicable (Note: appropriate OCD District office				
Laboratory analyses of final sampling (Note: appropriate OD	C District office must be notified 2 days prior to final sampling)				
Description of remediation activities					
and regulations all operators are required to report and/or file certa may endanger public health or the environment. The acceptance o should their operations have failed to adequately investigate and re human health or the environment. In addition, OCD acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in				
OCD Only					
Received by: <u>Shelly Wells</u>	Date: <u>8/22/2023</u>				
	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible /or regulations.				
Closure Approved by:	Date:08/30/2023				
Printed Name:	Title:Environmental Specialist - Adv				



APPENDIX F

Reclamation Plan

Reclamation Plan

The release affected a pasture area and as such, reclamation requirements set forth in 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation were applied.

The following Reclamation Plan addresses reclamation of the off-pad excavation area and has been developed through review and application of the *Revegetation Guidelines Handbook for Southeastern New Mexico* – Version 1-1, authored by NMSLO and dated 2018, and 19.2.100.67 NMAC – *Surface Reclamation on State Oil and Gas Leases*:

- The excavation will be backfilled with locally sourced caliche and topsoil to match surrounding grade. A minimum of 1-foot of topsoil will be placed on top of the caliche to support vegetative growth within the disturbed area;
- Soil in the vicinity of the release in the pasture will be assessed for the proper application of *Table 3 Revegetation Plans, Codes, and Soil Types for Southeastern New Mexico*;
- The backfilled areas will be seeded utilizing a weed-free seed mix designed listed in the table below;

Common Name and Preferred Variety	Scientific Name	PLS Per Acre
Annual Quick-cover Grass		
Oats	Avena sativa	1.00
Cool Season Grass		
Western Wheatgrass	Agropyron smithii	2.50
Warm-Season Grass		
Black or Blue Grama	Boutela gracilis var. Alma	1.50
Little Bluestem	Schizachyrium scoparium	0.50
Sand Dropseed	Sporobolus cryptandrus	0.50
Sand Bluestem	Andropogon hallii	1.00
Indiangrass	Sorghastrum nutans	0.50
Sideoats Grama	Bouteloua curtipendula var. Vaughn	2.00
Wildflowers/ Forbs		
White prairie clover	Dalea candida	0.10
Scarlet globemallow	Sphaeralcea coccinea	0.10
Chia Sage	Salvia columbariae	0.10
Annual sunflower	Helianthus annuus	0.10
Annual buckwheat	Eriogonum annuum	0.10

- The seed mixture will be distributed with one or more of the following methods: push broadcaster seed spreader, tractor operated broadcast seed spreader, and/or drill seeding based on Site conditions and contractor availability;
- Application of the seed mixture will be at a coverage of 10 pounds of seeds per acre of reclaimed pasture with distribution by a drilling method or 20 pounds of seeds per acre of reclaimed pasture with distribution by a broadcast method;

- Erosion control management is not anticipated since the proposed excavation area is relatively flat; however, in the event erosion control management is necessary to support vegetation growth and minimize erosion until the root structures take hold, the application of the following best management practices (BMPs) could potentially include:
 - Prompt revegetation with mulching and contouring the ground surface to limit surface water flow;
 - The placement of waddles in areas with a propensity for high run off rates;
 - Straw cover if high winds are anticipated to support moisture retention and limit wind from blowing seeds away before they have had time to germinate; and/or
 - Other erosional control best management practices (BMP) as necessary to support timely and healthy regrowth of vegetation in disturbed areas;
- Backfilling of the excavation will be scheduled and communicated with NMSLO prior to initiation;
- Seeding is anticipated to be completed in the Fall when temperatures and precipitation are most conducive for vegetation growth. In general, seeding should occur approximately one month after the last frost in the Spring up until approximately one month prior to the first fall frost. NMSLO has recognized the optimal time to seed is between July and early September, which will be the preferred timeframe for this Site;
- If seeding occurs outside of the 180 days approved in the current fully executed ROE Permit, a new ROE Permit will be executed prior to entering the pasture for reclamation activities;
- Annual inspections (at a minimum) will take place on the location until revegetation is consistent with local natural vegetation density. The Site will be inspected the following Fall to assess the success of regrowth. If necessary, an additional application of the NMSLO-approved pure live seed mixture will be applied as well as any needed BMPs will be installed to support growth and limit erosion; and
- Upon completion of revegetation, a copy of the C-103 submitted to NMOCD will also be submitted to NMSLO for final inspection and release.

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

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	255413
	Action Type:
	[C-141] Release Corrective Action (C-141)
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CONDITIONS

Created By		Condition Date
nvelez	None	8/30/2023

Action 255413