



September 29, 2025

New Mexico Oil Conservation Division
506 W. Texas Ave
Artesia, NM 88210

RE: **Mulva - Closure Request Report**
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°
Lea County, New Mexico
ESRR Project No. VP-210

To Whom It May Concern:

Earth Systems Response & Restoration (ESRR) presents the following Closure Request Report (CRR) detailing excavation activities and subsequent soil sampling events associated with an inadvertent release of crude oil at the Mulva (Site), owned by Salt Creek Midstream, LLC and operated by SCM Operations, LLC (SCM), OGRID# 330368. Based on completed remedial actions and laboratory analytical results from recent soil sampling events, SCM is requesting No Further Action (NFA) at the Site.

Site Location & Incident Description

The Site is located in Unit N, Section 27, Township 24 South, Range 35 East, in Lea County, New Mexico (32.183455°, -103.355595°) and is associated with oil and gas exploration and production operations on Private Land (**Figure 1**).

On March 21, 2025, A subsurface flowline ruptured due to corrosion, causing the release of approximately 19 barrels (bbls) of crude oil onto a production pad operated by Civitas Resources. Salt Creek reported no recovered fluids. ESRR was contracted on April 1, 2025 and conducted initial site assessment activities by mapping the observed release footprint on April 3, 2025, hereafter referred to as the Area of Concern (AOC) (**Figure 2**). SCM gave notice to the New Mexico Oil Conservation Division (NMOCD) on April 1, 2025, by Notification of Release (NOR) and was subsequently assigned Incident Number nAPP2509160854. On May 5, 2025, SCM reported the release on a Corrective Action Form C-141 (Form C-141).

Site Characterization

ESRR characterized the Site according to Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). The following proximities were estimated:

- Between 1,000 feet and ½ mile of any continuously flowing watercourse or any other significant watercourse;
- Between 1 and 5 miles of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
- Between 1 and 5 miles of any occupied permanent residence, school, hospital, institution or church;
- Between 1 and 5 miles of any spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes;

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



- Between 1 and 5 miles of any other freshwater well or spring;
- Greater than 5 miles of any incorporated municipal boundary or a defined municipal fresh water well field covered under a municipal ordinance;
- Between 1,000 feet and ½ mile of any wetland;
- Greater than 5 miles of any subsurface mine;
- Greater than 5 miles of any unstable area (i.e. high karst potential); and
- Greater than 5 miles of a 100-year floodplain.

Receptor details used to determine the Site characterization are included in **Figure 1A** and **Figure 1B**. **Referenced Well Records** for the closest depth to water wells are attached.

Based on the results from the desktop review and depth to ground water estimated to be greater than 50 feet below ground surface (bgs), the following Closure Criteria was applied:

Constituents of Concern (COCs)	Closure Criteria [‡]
Chloride	10,000 milligram per kilogram (mg/kg)
Total Petroleum Hydrocarbon (TPH)	2,500 mg/kg
Gasoline Range Organics (GRO) + Diesel Range Organics (DRO)	1,000 mg/kg
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	50 mg/kg

[‡]The reclamation concentration requirements of 600 mg/kg Chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

Laboratory Analytical Methods used: Environmental Protection Agency (EPA) 300.0, EPA 8015 NM, EPA 8021 B

Delineation Activities

On April 16, 2025, ESRR conducted delineation activities to assess the presence or absence of soil impacts associated with the AOC. Eight delineation boreholes (HA-1 through HA-6) were advanced via hand auger within the AOC. Delineation activities were driven by field screening soil for chloride utilizing QuanTab® test strips and volatile organic compounds by a calibrated Photo Ionization Detector (PID). A minimum of two soil samples were collected from each delineation borehole, representing the highest observed field screening concentrations and the greatest depth. Delineation soil samples were placed directly into lab provided pre-cleaned jars, packed with minimal void space, labeled, and placed on ice. The delineation soil samples were transported under strict chain-of-custody procedures, to Eurofins in Carlsbad, New Mexico, for analysis of the COCs. **Photographic Documentation** of all activities are attached.

Laboratory analytical results for samples collected within the AOC (HA-1 through HA-6) indicated TPH-GRO+TPH-DRO/TPH, Benzene, and/ or Total BTEX were above the Site Closure Criteria and/or the reclamation standard. Elevated TPH-GRO+TPH-DRO/TPH is characterized by concentrations ranging from 9,470 mg/kg to 37,200 mg/kg, specifically for TPH-GRO and TPH-DRO. Elevated Benzene is characterized by concentrations ranging from 10.8 mg/kg to 44.2 mg/kg. Elevated Total BTEX is characterized by concentrations ranging from 198 mg/kg to 698 mg/kg. Laboratory results are summarized in **Table 1**, included in the attachments. The locations of all delineation soil samples are shown in **Figure 2**.

Remediation Activities

From June 30, 2025 through August 5, 2025, ESRR oversaw excavation activities conducted by SCM contracted personnel of identified impacts performed via mechanical equipment based on laboratory analytical results associated with delineation soil sampling activities and visual observation. The excavation was vertically advanced to depths approximately ranging from 4 to 10-feet bgs.

Mulva - Closure Request Report
Incident Number: nAPP2509160854
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Following the removal of soil, ESRR collected 5-point composite soil samples at a sampling frequency of 200 square feet from the excavation floor (CS-1 through CS-8) and sidewalls (SW-1 through SW-10). The 5-point composite soil samples were comprised of five equivalent aliquots homogenized in a 1-gallon resealable plastic bag and handled, transported, and analyzed as previously described.

Laboratory analytical results for confirmation soil samples (SW-1 through SW-8) were compliant with Site Closure Criteria and/or the reclamation standard defining the horizontal periphery of the excavation extent.

Laboratory analytical results for confirmation soil samples (CS-2 and CS-3) indicated TPH-GRO and TPH-DRO and/ or Benzene concentrations exceed the Site Closure Criteria. Elevated TPH-GRO and TPH-DRO concentrations are characterized by concentrations ranging from 1,783 mg/kg to 2,227 mg/kg at 6-feet bgs. Elevated benzene concentration is characterized by a concentration of 56.0 mg/kg at 6-feet bgs for CS-3.

Continued Remediation Activities

Additional excavation in the proximities to confirmation soil samples (CS-2 and CS-3) were vertically advanced to an approximate depth of 8-feet bgs. Following the removal of soil, ESRR collected, handled, transported, and analyzed the confirmation soil samples as previously described.

Laboratory analytical results for confirmation soil sample (CS-3) indicated TPH-GRO and TPH-DRO concentrations exceed the Site Closure Criteria. Elevated TPH-GRO and TPH-DRO concentrations are characterized by a concentration of 1,740 mg/kg at 8-feet bgs.

Additional excavation in the proximity to confirmation soil sample (CS-3) was vertically advanced to an approximate depth of 10-feet bgs. Following the removal of soil, ESRR collected, handled, transported, and analyzed the confirmation soil samples as previously described.

Laboratory analytical results indicated that concentrations of COCs for all final confirmation soil samples (CS-1 through CS-8 and SW-1 through SW-10) do not exceed the applicable Site Closure Criteria and/or reclamation standard. Laboratory results are summarized in **Table 1**, included in the attachments. The locations of all final confirmation soil samples are shown in **Figure 3**.

Approximately 720 cubic yards (CY) of impacted soil was removed from the Site and transported to the Northern Delaware Basin Disposal in Jal, New Mexico under SCM approved manifests. Upon receipt of the final confirmation soil samples results, the excavation was backfilled with clean locally-sourced soil and the Site was restored to "as close to its original state" as possible. The final soil cover was contoured to match the Site's pre-existing grade to prevent ponding of water and erosion. **Photographic Documentation** of all activities are attached.

Closure Request

Based on laboratory analytical results for all final confirmation soil samples, SCM believes that soil impacts associated with the inadvertent release have been excavated and removed from the Site. SCM believes the completed remedial actions meet the requirements set forth in NMAC 19.15.29.13 regulations in order to be protective of human health, the environment, and groundwater. As such, NFA appears

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warranted at this time, and Salt Creek requests Closure of this CRR associated with Incident Number nAPP2509160854.

If you have any questions or comments, please do not hesitate to contact Gilbert Moreno at (832) 541-7719 or gmoreno@earthsys.net. **NMOCD Email documentation & correspondence and executed chain-of-custody forms and laboratory analytical reports** are attached.

Sincerely,

EARTH SYSTEMS RESPONSE & RESTORATION

A handwritten signature in black ink, appearing to read "Gilbert Moreno".

Gilbert Moreno
Carlsbad Operations Manager/ Project Geologist

A handwritten signature in black ink, appearing to read "Kris Williams".

Kris Williams, CHMM, REM
Principal

cc: Susan Worthen, Salt Creek Midstream

Attachments:

- Figure 1 - Site Map
- Figure 1A - Ground Water
- Figure 1B - Karst Potential
- Figure 2 - Delineation Soil Sample Locations
- Referenced Well Records
- Table 1 - Soil Sample Analytical Results
- Figure 3 - Excavation Soil Sample Locations
- Photographic Documentation
- NMOCD Email Documentation & Correspondance
- Executed Chain-of-Custody Forms and Laboratory Analytical Reports

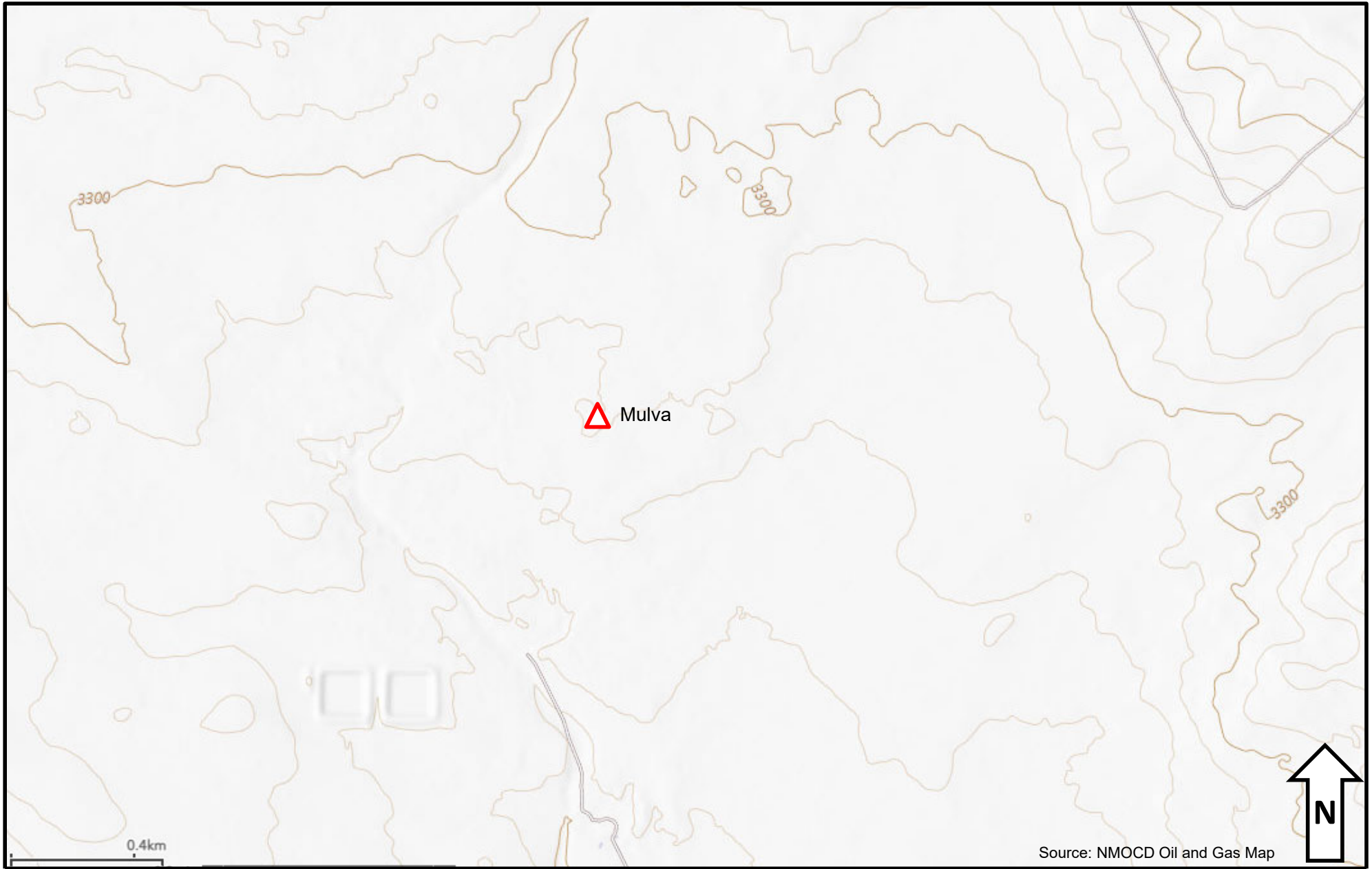
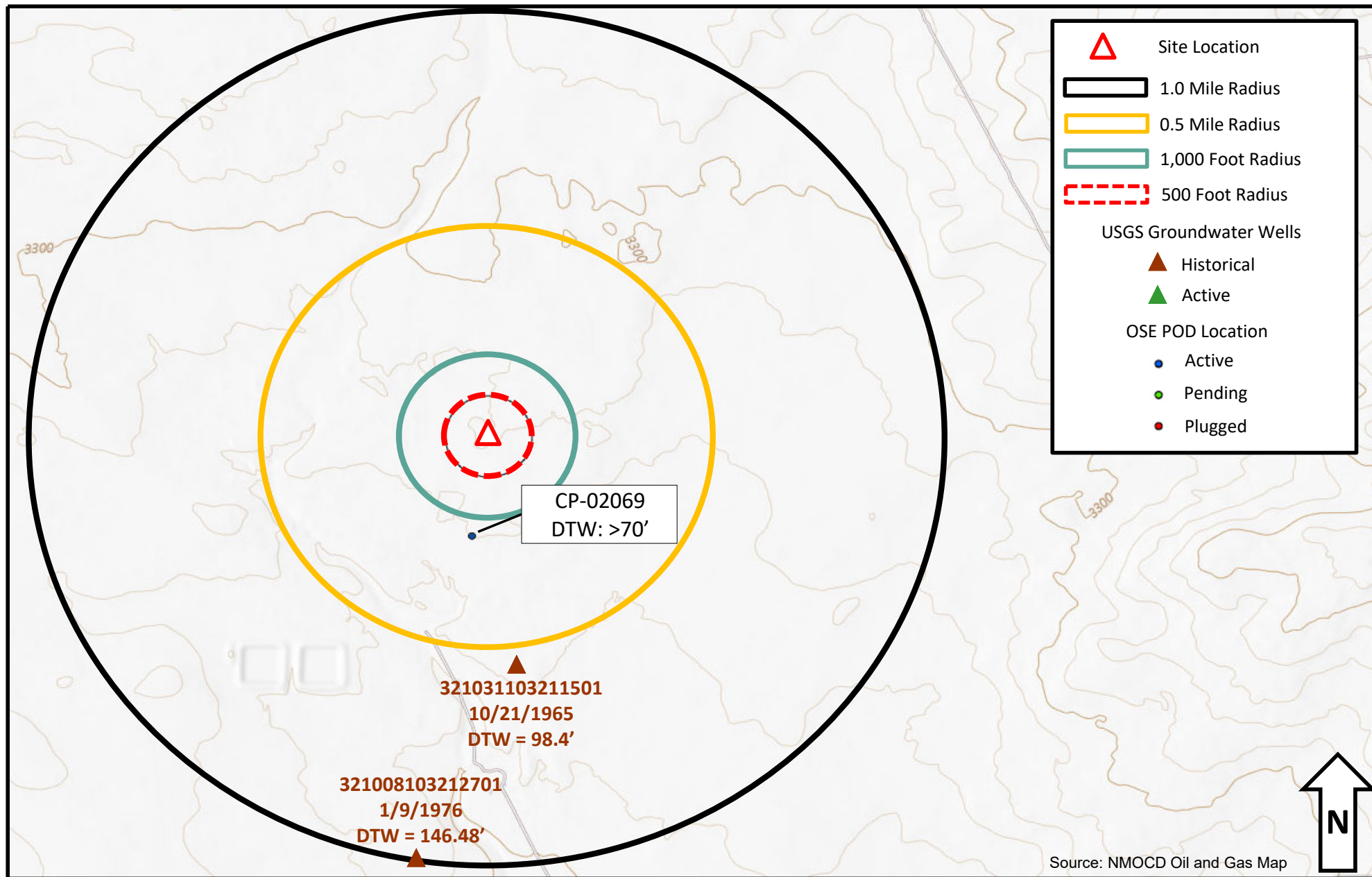


Figure 1 – Site Map

Salt Creek Midstream – Mulva
GPS: 32.183455°, -103.355595°
Lea County, New Mexico



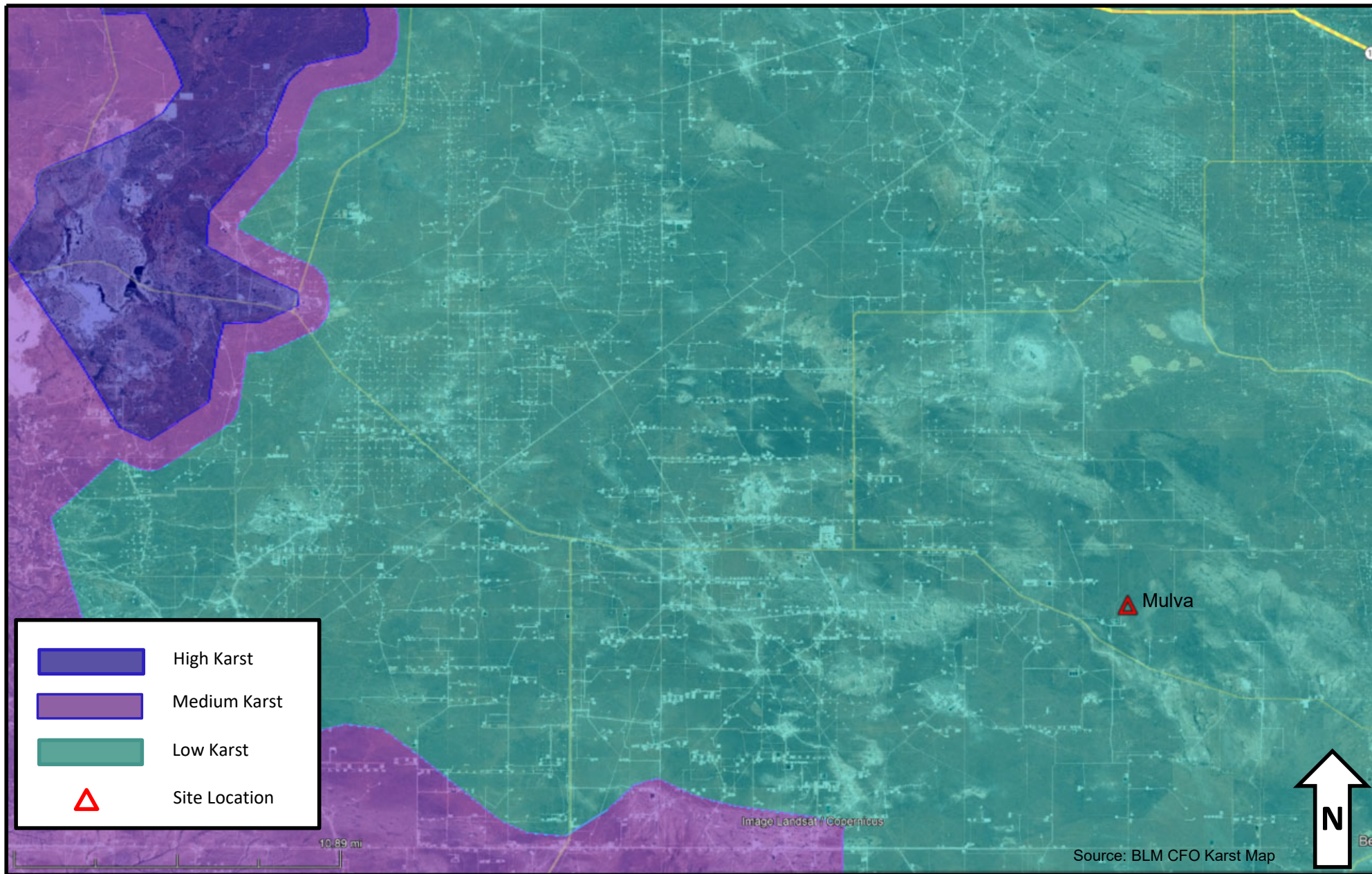


Figure 1B – Karst Potential

Salt Creek Midstream – Mulva
GPS: 32.183455°, -103.355595°
Lea County, New Mexico

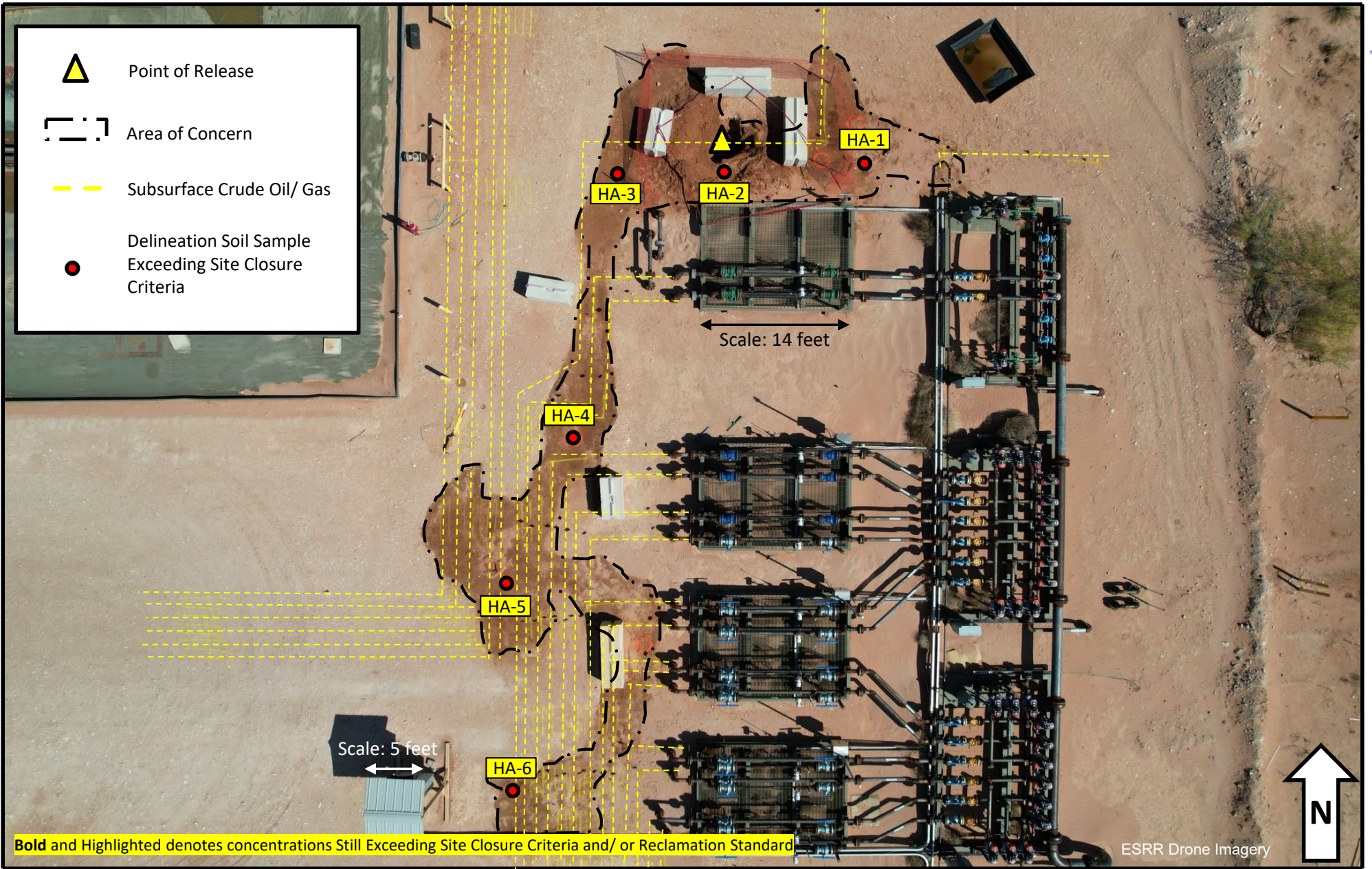


Figure 2 – Delineation Soil Sample Locations

Salt Creek Midstream – Mulva
GPS: 32.183455°, -103.355595°
Lea County, New Mexico



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (TW-1)		WELL TAG ID NO.		OSE FILE NO(S). CP-2069		
	WELL OWNER NAME(S) Salt Creek Midstream, LLC				PHONE (OPTIONAL) (281) 949-8794		
	WELL OWNER MAILING ADDRESS 5775 N Sam Houston Pkwy, Suite 600				CITY Houston	STATE TX	ZIP 77086
	WELL LOCATION (FROM GPS)	DEGREES 32		MINUTES 10	SECONDS 48.3	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84	
		LATITUDE			N		
	LONGITUDE		-103	21	22.4	W	
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NE NE NW Sec 34 T24S R35E							

2. DRILLING & CASING INFORMATION	LICENSE NO. WD - 1897		NAME OF LICENSED DRILLER Jason R Shubert			NAME OF WELL DRILLING COMPANY Talon/LPE, Ltd.		
	DRILLING STARTED 07/30/2025	DRILLING ENDED 07/30/2025	DEPTH OF COMPLETED WELL (FT) 70	BORE HOLE DEPTH (FT) 95	DEPTH WATER FIRST ENCOUNTERED (FT) Dry			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN *add Centralizer info below <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A		DATE STATIC MEASURED -	
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:						CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>	
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	50	6.25	Sch 40 PVC - Riser	Threaded	2	0.25	-
	50	70	6.25	Sch 40 PVC - Screen	Threaded	2	0.25	0.010

3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				
				>72hr Temp Well - No Seal		


FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.		POD NO.	TRN NO.
LOCATION		WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)	
	FROM	TO					
	0	2	2	CLHE: Cliche, dry, tan, fine to coarse, abundant small to large gravel.	Y ✓ N		
	2	20	18	SP: Sand, dry, reddish brown, fine, trace small caliche gravel, trace silt.	Y ✓ N		
				@10': Color change to lighter red-brown.	Y ✓ N		
				@15': Some Tan mottling, increased silt.	Y ✓ N		
	20	30	10	CLHE: Cliche, dry, tan, fine to coarse, very consolidated.	Y ✓ N		
	30	70	40	SP: Sand, dry, tan, fine.	Y ✓ N		
				@50': Color change to lighter tan, trace silt.	Y ✓ N		
				@60': Color change to light brown.	Y ✓ N		
				@65': Color change to brown.	Y ✓ N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER – SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm):	

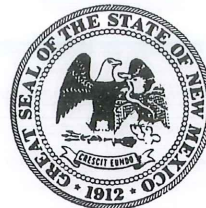
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	MISCELLANEOUS INFORMATION:	
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Jesse W Tausch	

6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	<div><div>Digitally signed by Jason R Shubert DN: cn=Jason R Shubert, o=TalonPE Ltd, ou=01, email=jshubert@talonpe.com, c=US Date: 2025.08.28 16:35:50 -05'00'</div></div> <div>Jason R Shubert</div>	<div>08/28/2025</div>

SIGNATURE OF DRILLER / PRINT SIGNEE NAME			DATE
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PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: CP-2069

Well owner: Salt Creek Midstream, LLC

Phone No.: (281) 949-8794

Mailing address: 5775 N Sam Houston Pkwy, Suite 600

City: Houston

State: TX

Zip code: 77086

II. WELL PLUGGING INFORMATION:

- 1) Name of well drilling company that plugged well: Talon/LPE, Ltd.
- 2) New Mexico Well Driller License No.: WD-1898 Expiration Date: 04/17/2027
- 3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Jason R Shubert / Jesse W Tausch
- 4) Date well plugging began: 08/04/2025 Date well plugging concluded: 08/04/2025
- 5) GPS Well Location: Latitude: 32 deg, 10 min, 48.3 sec
Longitude: -103 deg, 21 min, 22.4 sec, WGS 84
- 6) Depth of well confirmed at initiation of plugging as: 70 ft below ground level (bgl),
by the following manner: Down-hole tape
- 7) Static water level measured at initiation of plugging: Dry ft bgl
- 8) Date well plugging plan of operations was approved by the State Engineer: 06/06/2025
- 9) Were all plugging activities consistent with an approved plugging plan? No If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

Temp well pulled and plugged with bentonite bottom to top.

- For each interval plugged, describe within the following columns:**

MULTIPLY		BY	AND OBTAIN	
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

I, Jason R Shubert, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Digitally signed by Jason R Shubert
DN: cn=Jason R Shubert, o=Talcorp, c=US, ou=01, email=jshubert@talcorp.com, cn=
Date: 2025.08.28 16:36:45 -0500

Date _____



Table 1
SOIL SAMPLE ANALYTICAL RESULTS
Mulva
Lea County, New Mexico



Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO + GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Delineation Soil Samples - nAPP2509160854										
HA-1	04/16/25	0.5	5.33	322	4,340	11,900	<500	16,240	16,200	122
HA-1	04/16/25	1	14.0	289	4,650	4,820	<49.8	9,470	9,470	130
HA-1	04/16/25	2	23.8	346	7,060	7,910	<250	14,970	15,000	105
HA-1	04/16/25	3	18.8	540	6,180	8,360	<249	14,540	14,500	133
HA-1	04/16/25	4	23.2	373	7,440	8,940	<250	16,380	16,400	135
HA-2	04/16/25	0.5	2.62	198	5,020	16,200	<498	21,220	21,200	148
HA-2	04/16/25	1	13.8	263	5,620	9,330	<249	14,950	15,000	143
HA-2	04/16/25	2	10.8	331	7,090	9,540	<250	16,630	16,600	174
HA-2	04/16/25	3	34.9	510	8,480	8,790	<249	17,270	17,300	215
HA-2	04/16/25	4	29.1	342	6,610	6,860	<250	13,470	13,500	450
HA-3	04/16/25	0.5	13.4	414	8,640	24,100	<999	32,740	32,700	139
HA-3	04/16/25	1	8.06	268	3,640	7,890	<249	11,530	11,500	143
HA-4	04/16/25	0.5	44.2	698	11,900	21,500	<997	33,400	33,400	93.9
HA-4	04/16/25	1	24.6	427	7,730	9,410	<250	17,140	17,100	118
HA-5	04/16/25	0.5	28.2	484	10,300	26,900	<994	37,200	37,200	87.1
HA-5	04/16/25	1	28.7	514	6,840	8,170	<249	15,010	15,000	111
HA-6	04/16/25	0.5	14.5	433	12,500	24,600	<993	37,100	37,100	115
HA-6	04/16/25	1	7.01	265	5,920	8,060	<250	13,980	14,000	146
Confirmation Soil Samples - nAPP2509160854										
CS - 1	07/03/25	6	<0.0497	1.14	<49.9	294	<49.9	294	294	96.7
CS - 2	07/03/25	6	0.579	32.0	453	1,330	<49.9	1,783	1,780	142
CS - 2	07/31/25	8	0.0229	5.94	<49.8	120	<49.8	120	120	14.9
CS - 3	07/03/25	6	0.782	56.0	547	1,680	<50.0	2,227	2,230	117
CS - 3	07/31/25	8	0.287	28.6	440	1,300	<50.5	1,740	1,740	10.0
CS - 3	08/05/25	10	<0.00198	0.0178	<50.0	79.4	<50.0	79.4	79.4	246
CS - 4	07/17/25	4	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	98.0
CS - 5	07/22/25	4	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0



Table 1
SOIL SAMPLE ANALYTICAL RESULTS
Mulva
Lea County, New Mexico



Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	DRO + GRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Confirmation Soil Samples - nAPP2509160854										
CS - 6	07/22/25	4	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	<10.1
CS - 7	07/22/25	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0
CS - 8	07/22/25	4	0.00286	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1
SW - 1	07/03/25	0-6	<0.00200	<0.00399	<49.8	72.6	<49.8	72.6	72.6	145
SW - 2	07/03/25	0-6	<0.0101	<0.0202	<49.8	<49.8	<49.8	<49.8	<49.8	142
SW - 3	07/03/25	0-6	<0.00992	<0.0198	<49.7	<49.7	<49.7	<49.7	<49.7	94.5
SW - 4	07/17/25	0-4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	136
SW - 5	07/17/25	0-4	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	118
SW - 6	07/22/25	0-4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	20.0
SW - 7	07/22/25	0-4	<0.00198	<0.00396	<49.7	<49.7	<49.7	<49.7	<49.7	<10.1
SW - 8	07/22/25	0-4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	<9.98
SW - 9	08/05/25	6-10	<0.00198	0.0646	<49.8	<49.8	<49.8	<49.8	<49.8	14.5
SW - 10	08/05/25	6-10	<0.00200	0.0451	<50.0	<50.0	<50.0	<50.0	<50.0	15.8

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Text in "grey" represents excavated soil samples

Concentrations in **bold and highlighted** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard[†] for Soils Impacted by a Release

[†]The reclamation concentration requirements of 600 mg/kg chloride and 100 mg/kg TPH apply to the top 4 feet of areas to be immediately reclaimed following remediation pursuant to NMAC 19.15.17.13.

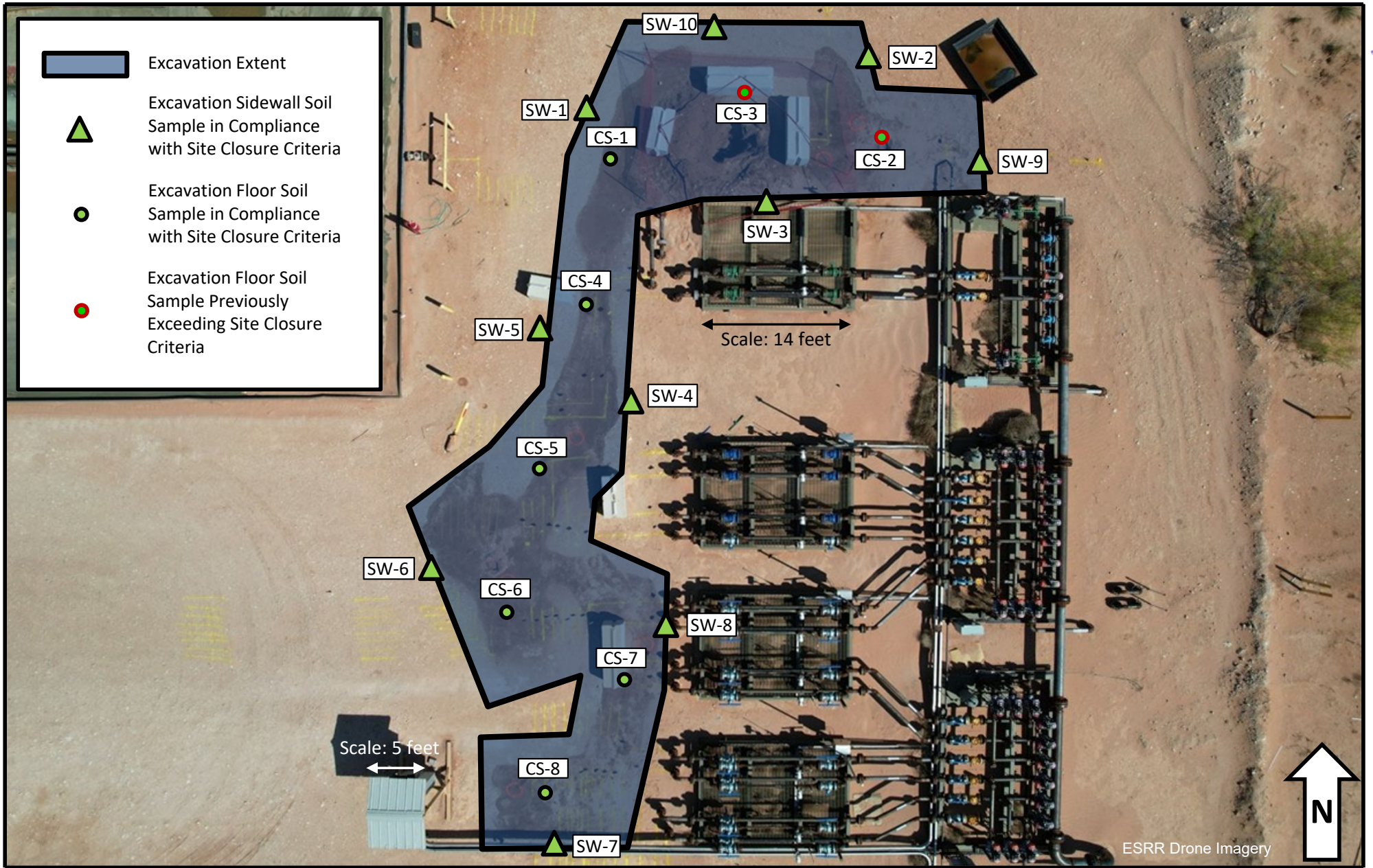


Figure 3 – Excavation Soil Sample Locations

Salt Creek Midstream – Mulva
GPS: 32.183455°, -103.355595°
Lea County, New Mexico

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



PHOTO 1: Northwest view of AOC during initial site assessment activities. 4/3/2025



PHOTO 2: Northeast view of AOC during initial site assessment activities. 4/3/2025

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



PHOTO 3: Northwest view during delineation activities. 4/16/2025



PHOTO 4: Southwest view during delineation activities. 4/16/2025

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



PHOTO 5: Southeast view during delineation activities. 4/16/2025



PHOTO 6: Northwest view during excavation activities. 7/1/2025

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



PHOTO 7: Northeast view during excavation activities. 7/2/2025



PHOTO 8: Southeast view during excavation activities. 7/8/2025

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



PHOTO 9: Northeast view during excavation activities. 7/10/2025



PHOTO 10: Northeast view of excavation extent. 7/10/2025

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°

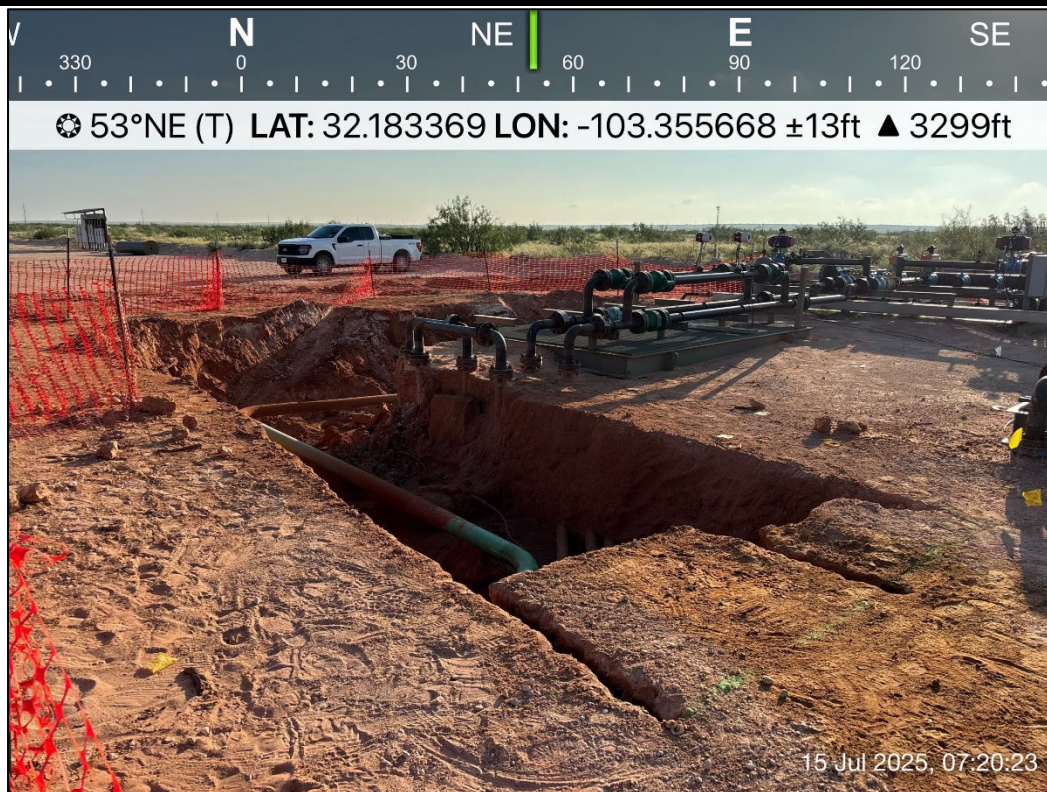


PHOTO 11: Northeast view of excavation extent. 7/15/2025



PHOTO 12: Southeast view during excavation activities. 7/18/2025

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



PHOTO 13: Northeast view during excavation activities. 7/18/2025



PHOTO 14: Northern view of excavation extent. 7/22/2025

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



PHOTO 15: Southwest view during temporary depth to water drilling activities. 7/30/2025



PHOTO 16: Southeast view during continued excavation activities. 7/30/2025

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



PHOTO 17: Southwest view of excavation extent. 8/5/2025



PHOTO 18: Northeast view following restoration activities. 8/5/2025

Mulva - Closure Request Report
Incident Number: nAPP2509160854
GPS: 32.183455°, -103.355595°



PHOTO 19: Southeast view following restoration activities. 9/10/2025



PHOTO 20: Northeast view following restoration activities. 9/10/2025

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 480374

QUESTIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 480374
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2509160854
Incident Name	NAPP2509160854 MULVA @ 0
Incident Type	Oil Release
Incident Status	Initial C-141 Approved

Location of Release Source	
Site Name	MULVA
Date Release Discovered	03/21/2025
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	1,200
What is the estimated number of samples that will be gathered	10
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/03/2025
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Contact Gilbert Moreno (Earth Systems) (832) 541-7719
Please provide any information necessary for navigation to sampling site	32.18355, -103.355595

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Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 480374

CONDITIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 480374
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
sworthen	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	6/30/2025
sworthen	If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.	6/30/2025

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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 484750

QUESTIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 484750
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2509160854
Incident Name	NAPP2509160854 MULVA @ 0
Incident Type	Oil Release
Incident Status	Initial C-141 Approved

Location of Release Source	
Site Name	MULVA
Date Release Discovered	03/21/2025
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	1,200
What is the estimated number of samples that will be gathered	10
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/17/2025
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Contact: Gilbert Moreno (832) 541-7719
Please provide any information necessary for navigation to sampling site	Site GPS: 32.18355, -103.355595 Check in with either SCM OR CIVITAS REP upon arrival.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 484750

CONDITIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 484750
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
sworthen	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	7/14/2025
sworthen	If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.	7/14/2025

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Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 486420

QUESTIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 486420
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2509160854
Incident Name	NAPP2509160854 MULVA @ 0
Incident Type	Oil Release
Incident Status	Initial C-141 Approved

Location of Release Source	
Site Name	MULVA
Date Release Discovered	03/21/2025
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	1,200
What is the estimated number of samples that will be gathered	10
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/22/2025
Time sampling will commence	10:30 AM
Please provide any information necessary for observers to contact samplers	Please contact: Gilbert Moreno (832) 541-7719
Please provide any information necessary for navigation to sampling site	Site GPS: 32.18355, -103.355595 Once on location, please contact Gilbert Moreno.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 486420

CONDITIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 486420
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
sworthen	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	7/18/2025
sworthen	If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.	7/18/2025

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 489306

QUESTIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 489306
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2509160854
Incident Name	NAPP2509160854 MULVA @ 0
Incident Type	Oil Release
Incident Status	Initial C-141 Approved

Location of Release Source

Site Name	MULVA
Date Release Discovered	03/21/2025
Surface Owner	Private

Sampling Event General Information*Please answer all the questions in this group.*

What is the sampling surface area in square feet	400
What is the estimated number of samples that will be gathered	3
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/31/2025
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Gilbert Moreno (832) 541-7719
Please provide any information necessary for navigation to sampling site	32.18355, -103.355595

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 489306

CONDITIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 489306
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
sworthen	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	7/28/2025
sworthen	If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.	7/28/2025

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 491495

QUESTIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 491495
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2509160854
Incident Name	NAPP2509160854 MULVA @ 0
Incident Type	Oil Release
Incident Status	Initial C-141 Approved

Location of Release Source	
Site Name	MULVA
Date Release Discovered	03/21/2025
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	400
What is the estimated number of samples that will be gathered	2
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/05/2025
Time sampling will commence	08:00 AM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Gilbert Moreno (832) 541-7719
Please provide any information necessary for navigation to sampling site	32.18355, -103.355595

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 491495

CONDITIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 491495
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
sworthen	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	8/2/2025
sworthen	If confirmation sampling is going to take place over multiple days, individual C-141N applications must be submitted for each sampling date. Date ranges are not currently accepted on the C-141N application.	8/2/2025



Environment Testing

- 1
- 2
- 3
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ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 4/28/2025 11:16:16 AM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-7961-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



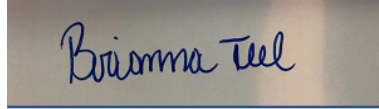
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Job Notes

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

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

Authorization



Generated
4/28/2025 11:16:16 AM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-7961-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Surrogate Summary	22
QC Sample Results	24
QC Association Summary	33
Lab Chronicle	39
Certification Summary	45
Method Summary	46
Sample Summary	47
Chain of Custody	48
Receipt Checklists	50

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-7961-1

Job ID: 890-7961-1

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Job Narrative 890-7961-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 4/16/2025 2:03 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 5.6°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: HA-1 (890-7961-1), HA-1 (890-7961-2), HA-1 (890-7961-3), HA-1 (890-7961-4), HA-1 (890-7961-5), HA-2 (890-7961-6), HA-2 (890-7961-7), HA-2 (890-7961-8), HA-2 (890-7961-9), HA-2 (890-7961-10), HA-3 (890-7961-11), HA-3 (890-7961-12), HA-4 (890-7961-13), HA-4 (890-7961-14), HA-5 (890-7961-15), HA-5 (890-7961-16), HA-6 (890-7961-17) and HA-6 (890-7961-18).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: HA-2 (890-7961-6), HA-2 (890-7961-7), HA-2 (890-7961-8), HA-2 (890-7961-9) and HA-2 (890-7961-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-107945 and analytical batch 880-108056 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: HA-1 (890-7961-1), HA-1 (890-7961-2), HA-1 (890-7961-3), HA-1 (890-7961-4) and HA-1 (890-7961-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-108183 and analytical batch 880-108179 was outside the upper control limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-108180 recovered above the upper control limit for Ethylbenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is: (CCV 880-108180/20).

Method 8021B: Surrogate recovery for the following samples were outside control limits: HA-3 (890-7961-11) and HA-4 (890-7961-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Diesel Range Organics

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-108012 and analytical batch 880-108761 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: HA-1 (890-7961-3), HA-1 (890-7961-4), HA-1 (890-7961-5), HA-2 (890-7961-6), HA-2 (890-7961-7), HA-2 (890-7961-8), HA-2 (890-7961-9), HA-2 (890-7961-10), HA-3 (890-7961-11), HA-3 (890-7961-12), HA-4 (890-7961-13), HA-4 (890-7961-14), HA-5 (890-7961-15), HA-5 (890-7961-16), HA-6 (890-7961-17) and HA-6 (890-7961-18). 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: HA-1 (890-7961-1) and HA-1

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Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-7961-1

Job ID: 890-7961-1 (Continued)

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(890-7961-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-107982 and analytical batch 880-108122 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: HA-1 (890-7961-1), HA-1 (890-7961-2), HA-1 (890-7961-3), HA-1 (890-7961-4), HA-1 (890-7961-5), HA-2 (890-7961-6), HA-2 (890-7961-7), HA-2 (890-7961-8), (890-7960-A-51-A), (890-7960-A-51-B MS) and (890-7960-A-51-C MSD).

Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-107983 and analytical batch 880-108130 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: HA-2 (890-7961-9), HA-2 (890-7961-10), HA-3 (890-7961-11), HA-3 (890-7961-12), HA-4 (890-7961-13), HA-4 (890-7961-14), HA-5 (890-7961-15), HA-5 (890-7961-16) and HA-6 (890-7961-17).

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-1

Lab Sample ID: 890-7961-1

Date Collected: 04/16/25 08:30

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5.33		0.199		mg/Kg		04/18/25 14:50	04/19/25 15:44	100
Toluene	131		2.01		mg/Kg		04/21/25 09:09	04/21/25 20:18	1000
Ethylbenzene	29.4		0.199		mg/Kg		04/18/25 14:50	04/19/25 15:44	100
m-Xylene & p-Xylene	75.8		0.398		mg/Kg		04/18/25 14:50	04/19/25 15:44	100
o-Xylene	80.2		2.01		mg/Kg		04/21/25 09:09	04/21/25 20:18	1000
Xylenes, Total	278		4.02		mg/Kg		04/21/25 09:09	04/21/25 20:18	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	338	S1+	70 - 130	04/18/25 14:50	04/19/25 15:44	100
1,4-Difluorobenzene (Surr)	96		70 - 130	04/18/25 14:50	04/19/25 15:44	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	322		0.398		mg/Kg			04/21/25 20:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	16200		500		mg/Kg			04/27/25 02:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	4340		500		mg/Kg		04/17/25 16:06	04/27/25 02:54	10
Diesel Range Organics (Over C10-C28)	11900		500		mg/Kg		04/17/25 16:06	04/27/25 02:54	10
Oil Range Organics (Over C28-C36)	<500	U	500		mg/Kg		04/17/25 16:06	04/27/25 02:54	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	264	S1+	70 - 130	04/17/25 16:06	04/27/25 02:54	10
o-Terphenyl	311	S1+	70 - 130	04/17/25 16:06	04/27/25 02:54	10

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	122		10.0		mg/Kg			04/19/25 00:15	1

Client Sample ID: HA-1

Lab Sample ID: 890-7961-2

Date Collected: 04/16/25 08:35

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	14.0		0.199		mg/Kg		04/18/25 14:50	04/19/25 16:04	100
Toluene	91.5		2.01		mg/Kg		04/21/25 09:09	04/21/25 20:38	1000
Ethylbenzene	23.6		2.01		mg/Kg		04/21/25 09:09	04/21/25 20:38	1000
m-Xylene & p-Xylene	121		4.02		mg/Kg		04/21/25 09:09	04/21/25 20:38	1000
o-Xylene	38.8		2.01		mg/Kg		04/21/25 09:09	04/21/25 20:38	1000
Xylenes, Total	160		4.02		mg/Kg		04/21/25 09:09	04/21/25 20:38	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	368	S1+	70 - 130	04/18/25 14:50	04/19/25 16:04	100

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-1

Lab Sample ID: 890-7961-2

Date Collected: 04/16/25 08:35

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130	04/18/25 14:50	04/19/25 16:04	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	289		4.02		mg/Kg			04/21/25 20:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	9470		49.8		mg/Kg			04/27/25 03:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	4650		49.8		mg/Kg		04/17/25 16:06	04/27/25 03:09	1
Diesel Range Organics (Over C10-C28)	4820		49.8		mg/Kg		04/17/25 16:06	04/27/25 03:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/17/25 16:06	04/27/25 03:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	153	S1+	70 - 130				04/17/25 16:06	04/27/25 03:09	1
o-Terphenyl	180	S1+	70 - 130				04/17/25 16:06	04/27/25 03:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		10.0		mg/Kg			04/19/25 00:37	1

Client Sample ID: HA-1

Lab Sample ID: 890-7961-3

Date Collected: 04/16/25 08:40

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	23.8		0.200		mg/Kg		04/18/25 14:50	04/19/25 16:25	100
Toluene	124		1.98		mg/Kg		04/21/25 09:09	04/21/25 20:59	1000
Ethylbenzene	26.8		1.98		mg/Kg		04/21/25 09:09	04/21/25 20:59	1000
m-Xylene & p-Xylene	128		3.97		mg/Kg		04/21/25 09:09	04/21/25 20:59	1000
o-Xylene	42.9		1.98		mg/Kg		04/21/25 09:09	04/21/25 20:59	1000
Xylenes, Total	171		3.97		mg/Kg		04/21/25 09:09	04/21/25 20:59	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	421	S1+	70 - 130	04/18/25 14:50	04/19/25 16:25	100
1,4-Difluorobenzene (Surr)	88		70 - 130	04/18/25 14:50	04/19/25 16:25	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	346		3.97		mg/Kg			04/21/25 20:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	15000		250		mg/Kg			04/26/25 23:10	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-1

Lab Sample ID: 890-7961-3

Date Collected: 04/16/25 08:40

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	7060		250		mg/Kg		04/17/25 16:10	04/26/25 23:10	5
Diesel Range Organics (Over C10-C28)	7910		250		mg/Kg		04/17/25 16:10	04/26/25 23:10	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		04/17/25 16:10	04/26/25 23:10	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	220	S1+	70 - 130	04/17/25 16:10	04/26/25 23:10	5
o-Terphenyl	246	S1+	70 - 130	04/17/25 16:10	04/26/25 23:10	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	105		9.96		mg/Kg			04/19/25 00:45	1

Client Sample ID: HA-1

Lab Sample ID: 890-7961-4

Date Collected: 04/16/25 08:45

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	18.8		0.200		mg/Kg		04/18/25 14:50	04/19/25 16:45	100
Toluene	134		2.02		mg/Kg		04/21/25 12:46	04/22/25 05:01	1000
Ethylbenzene	57.9		2.02		mg/Kg		04/21/25 12:46	04/22/25 05:01	1000
m-Xylene & p-Xylene	152		4.03		mg/Kg		04/21/25 12:46	04/22/25 05:01	1000
o-Xylene	177		2.02		mg/Kg		04/21/25 12:46	04/22/25 05:01	1000
Xylenes, Total	329		4.03		mg/Kg		04/21/25 12:46	04/22/25 05:01	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	410	S1+	70 - 130	04/18/25 14:50	04/19/25 16:45	100
1,4-Difluorobenzene (Surr)	105		70 - 130	04/18/25 14:50	04/19/25 16:45	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	540		4.03		mg/Kg			04/22/25 05:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	14500		249		mg/Kg			04/26/25 23:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	6180		249		mg/Kg		04/17/25 16:10	04/26/25 23:25	5
Diesel Range Organics (Over C10-C28)	8360		249		mg/Kg		04/17/25 16:10	04/26/25 23:25	5
Oil Range Organics (Over C28-C36)	<249	U	249		mg/Kg		04/17/25 16:10	04/26/25 23:25	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	222	S1+	70 - 130	04/17/25 16:10	04/26/25 23:25	5
o-Terphenyl	252	S1+	70 - 130	04/17/25 16:10	04/26/25 23:25	5

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-1

Lab Sample ID: 890-7961-4

Date Collected: 04/16/25 08:45

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		9.92		mg/Kg			04/19/25 00:52	1

Client Sample ID: HA-1

Lab Sample ID: 890-7961-5

Date Collected: 04/16/25 08:50

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	23.2		0.200		mg/Kg		04/18/25 14:50	04/19/25 17:06	100
Toluene	125		2.00		mg/Kg		04/21/25 12:46	04/22/25 05:21	1000
Ethylbenzene	48.1		2.00		mg/Kg		04/21/25 12:46	04/22/25 05:21	1000
m-Xylene & p-Xylene	130		3.99		mg/Kg		04/21/25 12:46	04/22/25 05:21	1000
o-Xylene	46.5		2.00		mg/Kg		04/21/25 12:46	04/22/25 05:21	1000
Xylenes, Total	177		3.99		mg/Kg		04/21/25 12:46	04/22/25 05:21	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	412	S1+	70 - 130				04/18/25 14:50	04/19/25 17:06	100
1,4-Difluorobenzene (Surr)	91		70 - 130				04/18/25 14:50	04/19/25 17:06	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	373		3.99		mg/Kg			04/22/25 05:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	16400		250		mg/Kg			04/26/25 23:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	7440		250		mg/Kg		04/17/25 16:10	04/26/25 23:40	5
Diesel Range Organics (Over C10-C28)	8940		250		mg/Kg		04/17/25 16:10	04/26/25 23:40	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		04/17/25 16:10	04/26/25 23:40	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	219	S1+	70 - 130				04/17/25 16:10	04/26/25 23:40	5
o-Terphenyl	268	S1+	70 - 130				04/17/25 16:10	04/26/25 23:40	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	135		10.0		mg/Kg			04/19/25 01:00	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-2

Lab Sample ID: 890-7961-6

Date Collected: 04/16/25 08:55

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.62		0.200		mg/Kg		04/18/25 15:11	04/19/25 14:52	100
Toluene	43.4		2.00		mg/Kg		04/21/25 12:46	04/22/25 05:42	1000
Ethylbenzene	30.6		0.200		mg/Kg		04/18/25 15:11	04/19/25 14:52	100
m-Xylene & p-Xylene	83.2		4.01		mg/Kg		04/21/25 12:46	04/22/25 05:42	1000
o-Xylene	38.5		0.200		mg/Kg		04/18/25 15:11	04/19/25 14:52	100
Xylenes, Total	118		4.01		mg/Kg		04/21/25 12:46	04/22/25 05:42	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	286	S1+	70 - 130	04/18/25 15:11	04/19/25 14:52	100
1,4-Difluorobenzene (Surr)	110		70 - 130	04/18/25 15:11	04/19/25 14:52	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	198		4.01		mg/Kg			04/22/25 05:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	21200		498		mg/Kg			04/26/25 23:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	5020		498		mg/Kg		04/17/25 16:10	04/26/25 23:54	10
Diesel Range Organics (Over C10-C28)	16200		498		mg/Kg		04/17/25 16:10	04/26/25 23:54	10
Oil Range Organics (Over C28-C36)	<498	U	498		mg/Kg		04/17/25 16:10	04/26/25 23:54	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	314	S1+	70 - 130	04/17/25 16:10	04/26/25 23:54	10
o-Terphenyl	422	S1+	70 - 130	04/17/25 16:10	04/26/25 23:54	10

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	148		10.1		mg/Kg			04/19/25 01:07	1

Client Sample ID: HA-2

Lab Sample ID: 890-7961-7

Date Collected: 04/16/25 09:00

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	13.8		0.200		mg/Kg		04/18/25 15:11	04/19/25 15:12	100
Toluene	83.9		1.99		mg/Kg		04/21/25 12:46	04/22/25 06:02	1000
Ethylbenzene	35.2		1.99		mg/Kg		04/21/25 12:46	04/22/25 06:02	1000
m-Xylene & p-Xylene	95.2		3.98		mg/Kg		04/21/25 12:46	04/22/25 06:02	1000
o-Xylene	34.8		1.99		mg/Kg		04/21/25 12:46	04/22/25 06:02	1000
Xylenes, Total	130		3.98		mg/Kg		04/21/25 12:46	04/22/25 06:02	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	293	S1+	70 - 130	04/18/25 15:11	04/19/25 15:12	100

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-2

Lab Sample ID: 890-7961-7

Date Collected: 04/16/25 09:00

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	04/18/25 15:11	04/19/25 15:12	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	263		3.98		mg/Kg			04/22/25 06:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	15000		249		mg/Kg			04/27/25 00:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	5620		249		mg/Kg		04/17/25 16:10	04/27/25 00:09	5
Diesel Range Organics (Over C10-C28)	9330		249		mg/Kg		04/17/25 16:10	04/27/25 00:09	5
Oil Range Organics (Over C28-C36)	<249	U	249		mg/Kg		04/17/25 16:10	04/27/25 00:09	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	220	S1+	70 - 130				04/17/25 16:10	04/27/25 00:09	5
o-Terphenyl	280	S1+	70 - 130				04/17/25 16:10	04/27/25 00:09	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	143		9.94		mg/Kg			04/19/25 01:15	1

Client Sample ID: HA-2

Lab Sample ID: 890-7961-8

Date Collected: 04/16/25 09:05

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	10.8		0.202		mg/Kg		04/18/25 15:11	04/19/25 15:33	100
Toluene	112		1.99		mg/Kg		04/21/25 12:46	04/22/25 06:23	1000
Ethylbenzene	44.7		1.99		mg/Kg		04/21/25 12:46	04/22/25 06:23	1000
m-Xylene & p-Xylene	120		3.98		mg/Kg		04/21/25 12:46	04/22/25 06:23	1000
o-Xylene	43.0		1.99		mg/Kg		04/21/25 12:46	04/22/25 06:23	1000
Xylenes, Total	163		3.98		mg/Kg		04/21/25 12:46	04/22/25 06:23	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	241	S1+	70 - 130	04/18/25 15:11	04/19/25 15:33	100
1,4-Difluorobenzene (Surr)	117		70 - 130	04/18/25 15:11	04/19/25 15:33	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	331		3.98		mg/Kg			04/22/25 06:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	16600		250		mg/Kg			04/27/25 00:24	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-2

Lab Sample ID: 890-7961-8

Date Collected: 04/16/25 09:05

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	7090		250		mg/Kg		04/17/25 16:10	04/27/25 00:24	5
Diesel Range Organics (Over C10-C28)	9540		250		mg/Kg		04/17/25 16:10	04/27/25 00:24	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		04/17/25 16:10	04/27/25 00:24	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	231	S1+	70 - 130	04/17/25 16:10	04/27/25 00:24	5
o-Terphenyl	273	S1+	70 - 130	04/17/25 16:10	04/27/25 00:24	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	174		9.92		mg/Kg			04/19/25 01:22	1

Client Sample ID: HA-2

Lab Sample ID: 890-7961-9

Date Collected: 04/16/25 09:10

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	34.9		0.202		mg/Kg		04/18/25 15:11	04/19/25 15:53	100
Toluene	172		2.00		mg/Kg		04/21/25 12:46	04/22/25 06:43	1000
Ethylbenzene	69.5		2.00		mg/Kg		04/21/25 12:46	04/22/25 06:43	1000
m-Xylene & p-Xylene	175		3.99		mg/Kg		04/21/25 12:46	04/22/25 06:43	1000
o-Xylene	58.2		2.00		mg/Kg		04/21/25 12:46	04/22/25 06:43	1000
Xylenes, Total	233		3.99		mg/Kg		04/21/25 12:46	04/22/25 06:43	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	323	S1+	70 - 130	04/18/25 15:11	04/19/25 15:53	100
1,4-Difluorobenzene (Surr)	95		70 - 130	04/18/25 15:11	04/19/25 15:53	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	510		3.99		mg/Kg			04/22/25 06:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17300		249		mg/Kg			04/27/25 00:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	8480		249		mg/Kg		04/17/25 16:10	04/27/25 00:54	5
Diesel Range Organics (Over C10-C28)	8790		249		mg/Kg		04/17/25 16:10	04/27/25 00:54	5
Oil Range Organics (Over C28-C36)	<249	U	249		mg/Kg		04/17/25 16:10	04/27/25 00:54	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	231	S1+	70 - 130	04/17/25 16:10	04/27/25 00:54	5
o-Terphenyl	260	S1+	70 - 130	04/17/25 16:10	04/27/25 00:54	5

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-2

Lab Sample ID: 890-7961-9

Date Collected: 04/16/25 09:10

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 3

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	215		10.0		mg/Kg			04/19/25 08:20	1

Client Sample ID: HA-2

Lab Sample ID: 890-7961-10

Date Collected: 04/16/25 09:15

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	29.1		0.202		mg/Kg		04/18/25 15:11	04/19/25 16:14	100
Toluene	121		2.00		mg/Kg		04/21/25 12:46	04/22/25 07:04	1000
Ethylbenzene	40.8		2.00		mg/Kg		04/21/25 12:46	04/22/25 07:04	1000
m-Xylene & p-Xylene	110		4.01		mg/Kg		04/21/25 12:46	04/22/25 07:04	1000
o-Xylene	40.8		2.00		mg/Kg		04/21/25 12:46	04/22/25 07:04	1000
Xylenes, Total	151		4.01		mg/Kg		04/21/25 12:46	04/22/25 07:04	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	276	S1+	70 - 130				04/18/25 15:11	04/19/25 16:14	100
1,4-Difluorobenzene (Surr)	97		70 - 130				04/18/25 15:11	04/19/25 16:14	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	342		4.01		mg/Kg			04/22/25 07:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	13500		250		mg/Kg			04/27/25 01:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	6610		250		mg/Kg		04/17/25 16:10	04/27/25 01:08	5
Diesel Range Organics (Over C10-C28)	6860		250		mg/Kg		04/17/25 16:10	04/27/25 01:08	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		04/17/25 16:10	04/27/25 01:08	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	206	S1+	70 - 130				04/17/25 16:10	04/27/25 01:08	5
o-Terphenyl	228	S1+	70 - 130				04/17/25 16:10	04/27/25 01:08	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	450		9.96		mg/Kg			04/19/25 08:27	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-3

Lab Sample ID: 890-7961-11

Date Collected: 04/16/25 09:20

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	13.4		2.01		mg/Kg		04/21/25 09:35	04/22/25 04:30	1000
Toluene	125		2.01		mg/Kg		04/21/25 09:35	04/22/25 04:30	1000
Ethylbenzene	51.0		2.01		mg/Kg		04/21/25 09:35	04/22/25 04:30	1000
m-Xylene & p-Xylene	167		4.02		mg/Kg		04/21/25 09:35	04/22/25 04:30	1000
o-Xylene	57.9		2.01		mg/Kg		04/21/25 09:35	04/22/25 04:30	1000
Xylenes, Total	225		4.02		mg/Kg		04/21/25 09:35	04/22/25 04:30	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130	04/21/25 09:35	04/22/25 04:30	1000
1,4-Difluorobenzene (Surr)	106		70 - 130	04/21/25 09:35	04/22/25 04:30	1000

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	414		4.02		mg/Kg			04/22/25 04:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	32700		999		mg/Kg			04/27/25 01:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	8640		999		mg/Kg		04/17/25 16:10	04/27/25 01:24	20
Diesel Range Organics (Over C10-C28)	24100		999		mg/Kg		04/17/25 16:10	04/27/25 01:24	20
Oil Range Organics (Over C28-C36)	<999	U	999		mg/Kg		04/17/25 16:10	04/27/25 01:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	410	S1+	70 - 130	04/17/25 16:10	04/27/25 01:24	20
o-Terphenyl	570	S1+	70 - 130	04/17/25 16:10	04/27/25 01:24	20

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	139		9.94		mg/Kg			04/19/25 08:34	1

Client Sample ID: HA-3

Lab Sample ID: 890-7961-12

Date Collected: 04/16/25 09:25

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	8.06		1.99		mg/Kg		04/21/25 09:35	04/22/25 04:51	1000
Toluene	81.5		1.99		mg/Kg		04/21/25 09:35	04/22/25 04:51	1000
Ethylbenzene	31.9		1.99		mg/Kg		04/21/25 09:35	04/22/25 04:51	1000
m-Xylene & p-Xylene	106		3.98		mg/Kg		04/21/25 09:35	04/22/25 04:51	1000
o-Xylene	40.2		1.99		mg/Kg		04/21/25 09:35	04/22/25 04:51	1000
Xylenes, Total	146		3.98		mg/Kg		04/21/25 09:35	04/22/25 04:51	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	04/21/25 09:35	04/22/25 04:51	1000

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-3

Lab Sample ID: 890-7961-12

Date Collected: 04/16/25 09:25

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130	04/21/25 09:35	04/22/25 04:51	1000

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	268		3.98		mg/Kg			04/22/25 04:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	11500		249		mg/Kg			04/27/25 01:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	3640		249		mg/Kg		04/17/25 16:10	04/27/25 01:39	5
Diesel Range Organics (Over C10-C28)	7890		249		mg/Kg		04/17/25 16:10	04/27/25 01:39	5
Oil Range Organics (Over C28-C36)	<249	U	249		mg/Kg		04/17/25 16:10	04/27/25 01:39	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	193	S1+	70 - 130				04/17/25 16:10	04/27/25 01:39	5
o-Terphenyl	257	S1+	70 - 130				04/17/25 16:10	04/27/25 01:39	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	143		9.92		mg/Kg			04/19/25 08:41	1

Client Sample ID: HA-4

Lab Sample ID: 890-7961-13

Date Collected: 04/16/25 09:30

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	44.2		1.98		mg/Kg		04/21/25 09:35	04/22/25 05:11	1000
Toluene	249		1.98		mg/Kg		04/21/25 09:35	04/22/25 05:11	1000
Ethylbenzene	76.4		1.98		mg/Kg		04/21/25 09:35	04/22/25 05:11	1000
m-Xylene & p-Xylene	240		3.96		mg/Kg		04/21/25 09:35	04/22/25 05:11	1000
o-Xylene	88.6		1.98		mg/Kg		04/21/25 09:35	04/22/25 05:11	1000
Xylenes, Total	329		3.96		mg/Kg		04/21/25 09:35	04/22/25 05:11	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	04/21/25 09:35	04/22/25 05:11	1000
1,4-Difluorobenzene (Surr)	110		70 - 130	04/21/25 09:35	04/22/25 05:11	1000

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	698		3.96		mg/Kg			04/22/25 05:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	33400		997		mg/Kg			04/27/25 01:55	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-4

Lab Sample ID: 890-7961-13

Date Collected: 04/16/25 09:30

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	11900		997		mg/Kg		04/17/25 16:10	04/27/25 01:55	20
Diesel Range Organics (Over C10-C28)	21500		997		mg/Kg		04/17/25 16:10	04/27/25 01:55	20
Oil Range Organics (Over C28-C36)	<997	U	997		mg/Kg		04/17/25 16:10	04/27/25 01:55	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	403	S1+	70 - 130	04/17/25 16:10	04/27/25 01:55	20
o-Terphenyl	525	S1+	70 - 130	04/17/25 16:10	04/27/25 01:55	20

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	93.9		9.98		mg/Kg			04/19/25 09:03	1

Client Sample ID: HA-4

Lab Sample ID: 890-7961-14

Date Collected: 04/16/25 09:35

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	24.6		2.00		mg/Kg		04/21/25 09:35	04/22/25 05:32	1000
Toluene	151		2.00		mg/Kg		04/21/25 09:35	04/22/25 05:32	1000
Ethylbenzene	46.0		2.00		mg/Kg		04/21/25 09:35	04/22/25 05:32	1000
m-Xylene & p-Xylene	148		3.99		mg/Kg		04/21/25 09:35	04/22/25 05:32	1000
o-Xylene	57.2		2.00		mg/Kg		04/21/25 09:35	04/22/25 05:32	1000
Xylenes, Total	205		3.99		mg/Kg		04/21/25 09:35	04/22/25 05:32	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	04/21/25 09:35	04/22/25 05:32	1000
1,4-Difluorobenzene (Surr)	107		70 - 130	04/21/25 09:35	04/22/25 05:32	1000

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	427		3.99		mg/Kg			04/22/25 05:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17100		250		mg/Kg			04/27/25 02:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	7730		250		mg/Kg		04/17/25 16:10	04/27/25 02:09	5
Diesel Range Organics (Over C10-C28)	9410		250		mg/Kg		04/17/25 16:10	04/27/25 02:09	5
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		04/17/25 16:10	04/27/25 02:09	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	232	S1+	70 - 130	04/17/25 16:10	04/27/25 02:09	5
o-Terphenyl	274	S1+	70 - 130	04/17/25 16:10	04/27/25 02:09	5

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-4

Lab Sample ID: 890-7961-14

Date Collected: 04/16/25 09:35

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	118		10.0		mg/Kg			04/19/25 09:10	1

Client Sample ID: HA-5

Lab Sample ID: 890-7961-15

Date Collected: 04/16/25 09:40

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	28.2		1.98		mg/Kg		04/21/25 09:35	04/22/25 05:52	1000
Toluene	164		1.98		mg/Kg		04/21/25 09:35	04/22/25 05:52	1000
Ethylbenzene	55.1		1.98		mg/Kg		04/21/25 09:35	04/22/25 05:52	1000
m-Xylene & p-Xylene	174		3.97		mg/Kg		04/21/25 09:35	04/22/25 05:52	1000
o-Xylene	62.3		1.98		mg/Kg		04/21/25 09:35	04/22/25 05:52	1000
Xylenes, Total	236		3.97		mg/Kg		04/21/25 09:35	04/22/25 05:52	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130				04/21/25 09:35	04/22/25 05:52	1000
1,4-Difluorobenzene (Surr)	104		70 - 130				04/21/25 09:35	04/22/25 05:52	1000

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	484		3.97		mg/Kg			04/22/25 05:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	37200		994		mg/Kg			04/27/25 02:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	10300		994		mg/Kg		04/17/25 16:10	04/27/25 02:24	20
Diesel Range Organics (Over C10-C28)	26900		994		mg/Kg		04/17/25 16:10	04/27/25 02:24	20
Oil Range Organics (Over C28-C36)	<994	U	994		mg/Kg		04/17/25 16:10	04/27/25 02:24	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	421	S1+	70 - 130				04/17/25 16:10	04/27/25 02:24	20
o-Terphenyl	614	S1+	70 - 130				04/17/25 16:10	04/27/25 02:24	20

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	87.1		10.0		mg/Kg			04/19/25 09:17	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-5

Lab Sample ID: 890-7961-16

Date Collected: 04/16/25 09:45

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	28.7		1.99		mg/Kg		04/21/25 09:35	04/22/25 06:13	1000
Toluene	184		1.99		mg/Kg		04/21/25 09:35	04/22/25 06:13	1000
Ethylbenzene	57.3		1.99		mg/Kg		04/21/25 09:35	04/22/25 06:13	1000
m-Xylene & p-Xylene	182		3.98		mg/Kg		04/21/25 09:35	04/22/25 06:13	1000
o-Xylene	62.4		1.99		mg/Kg		04/21/25 09:35	04/22/25 06:13	1000
Xylenes, Total	244		3.98		mg/Kg		04/21/25 09:35	04/22/25 06:13	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	04/21/25 09:35	04/22/25 06:13	1000
1,4-Difluorobenzene (Surr)	105		70 - 130	04/21/25 09:35	04/22/25 06:13	1000

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	514		3.98		mg/Kg			04/22/25 06:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	15000		249		mg/Kg			04/27/25 02:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	6840		249		mg/Kg		04/17/25 16:10	04/27/25 02:39	5
Diesel Range Organics (Over C10-C28)	8170		249		mg/Kg		04/17/25 16:10	04/27/25 02:39	5
Oil Range Organics (Over C28-C36)	<249	U	249		mg/Kg		04/17/25 16:10	04/27/25 02:39	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	227	S1+	70 - 130	04/17/25 16:10	04/27/25 02:39	5
o-Terphenyl	261	S1+	70 - 130	04/17/25 16:10	04/27/25 02:39	5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		10.1		mg/Kg			04/19/25 09:24	1

Client Sample ID: HA-6

Lab Sample ID: 890-7961-17

Date Collected: 04/16/25 09:50

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	14.5		1.99		mg/Kg		04/21/25 09:09	04/21/25 21:19	1000
Toluene	142		1.99		mg/Kg		04/21/25 09:09	04/21/25 21:19	1000
Ethylbenzene	38.8		1.99		mg/Kg		04/21/25 09:09	04/21/25 21:19	1000
m-Xylene & p-Xylene	166		3.98		mg/Kg		04/21/25 09:09	04/21/25 21:19	1000
o-Xylene	71.9		1.99		mg/Kg		04/21/25 09:09	04/21/25 21:19	1000
Xylenes, Total	238		3.98		mg/Kg		04/21/25 09:09	04/21/25 21:19	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/21/25 09:09	04/21/25 21:19	1000

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-6

Lab Sample ID: 890-7961-17

Date Collected: 04/16/25 09:50

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	73		70 - 130	04/21/25 09:09	04/21/25 21:19	1000

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	433		3.98		mg/Kg			04/21/25 21:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	37100		993		mg/Kg			04/27/25 02:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	12500		993		mg/Kg		04/17/25 16:10	04/27/25 02:54	20
Diesel Range Organics (Over C10-C28)	24600		993		mg/Kg		04/17/25 16:10	04/27/25 02:54	20
Oil Range Organics (Over C28-C36)	<993	U	993		mg/Kg		04/17/25 16:10	04/27/25 02:54	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	477	S1+	70 - 130	04/17/25 16:10	04/27/25 02:54	20
o-Terphenyl	549	S1+	70 - 130	04/17/25 16:10	04/27/25 02:54	20

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	115		9.96		mg/Kg			04/19/25 09:32	1

Client Sample ID: HA-6

Lab Sample ID: 890-7961-18

Date Collected: 04/16/25 09:55

Matrix: Solid

Date Received: 04/16/25 14:03

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7.01		2.00		mg/Kg		04/21/25 09:09	04/21/25 21:39	1000
Toluene	88.7		2.00		mg/Kg		04/21/25 09:09	04/21/25 21:39	1000
Ethylbenzene	21.1		2.00		mg/Kg		04/21/25 09:09	04/21/25 21:39	1000
m-Xylene & p-Xylene	111		4.00		mg/Kg		04/21/25 09:09	04/21/25 21:39	1000
o-Xylene	37.2		2.00		mg/Kg		04/21/25 09:09	04/21/25 21:39	1000
Xylenes, Total	148		4.00		mg/Kg		04/21/25 09:09	04/21/25 21:39	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/21/25 09:09	04/21/25 21:39	1000
1,4-Difluorobenzene (Surr)	83		70 - 130	04/21/25 09:09	04/21/25 21:39	1000

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	265		4.00		mg/Kg			04/21/25 21:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	14000		250		mg/Kg			04/27/25 03:09	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-6
Date Collected: 04/16/25 09:55
Date Received: 04/16/25 14:03
Sample Depth: 1

Lab Sample ID: 890-7961-18
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	5920		250		mg/Kg		04/17/25 16:10	04/27/25 03:09	5	
Diesel Range Organics (Over C10-C28)	8060		250		mg/Kg		04/17/25 16:10	04/27/25 03:09	5	
Oil Range Organics (Over C28-C36)	<250	U	250		mg/Kg		04/17/25 16:10	04/27/25 03:09	5	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1-Chlorooctane	219	S1+	70 - 130				04/17/25 16:10	04/27/25 03:09	5	
o-Terphenyl	254	S1+	70 - 130				04/17/25 16:10	04/27/25 03:09	5	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	146		9.94		mg/Kg			04/19/25 09:39	1	

Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
890-7961-1	HA-1	338 S1+	96
890-7961-2	HA-1	368 S1+	89
890-7961-3	HA-1	421 S1+	88
890-7961-4	HA-1	410 S1+	105
890-7961-5	HA-1	412 S1+	91
890-7961-6	HA-2	286 S1+	110
890-7961-7	HA-2	293 S1+	98
890-7961-8	HA-2	241 S1+	117
890-7961-9	HA-2	323 S1+	95
890-7961-10	HA-2	276 S1+	97
890-7961-11	HA-3	138 S1+	106
890-7961-12	HA-3	119	103
890-7961-13	HA-4	132 S1+	110
890-7961-14	HA-4	124	107
890-7961-15	HA-5	115	104
890-7961-16	HA-5	123	105
890-7961-17	HA-6	101	73
890-7961-18	HA-6	102	83
LCS 880-107945/1-A	Lab Control Sample	97	110
LCS 880-108025/1-A	Lab Control Sample	104	105
LCS 880-108183/1-A	Lab Control Sample	118	106
LCS 880-108198/1-A	Lab Control Sample	97	100
LCS 880-108219/1-A	Lab Control Sample	107	112
LCSD 880-107945/2-A	Lab Control Sample Dup	85	108
LCSD 880-108025/2-A	Lab Control Sample Dup	103	98
LCSD 880-108183/2-A	Lab Control Sample Dup	125	103
LCSD 880-108198/2-A	Lab Control Sample Dup	99	99
LCSD 880-108219/2-A	Lab Control Sample Dup	119	106
MB 880-107945/5-A	Method Blank	97	70
MB 880-108022/5-A	Method Blank	85	96
MB 880-108025/5-A	Method Blank	84	96
MB 880-108028/5-A	Method Blank	79	93
MB 880-108124/5-A	Method Blank	97	74
MB 880-108140/5-A	Method Blank	98	93
MB 880-108183/5-A	Method Blank	178 S1+	97
MB 880-108198/5-A	Method Blank	102	94
MB 880-108219/5-A	Method Blank	82	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
890-7961-1	HA-1	264 S1+	311 S1+
890-7961-2	HA-1	153 S1+	180 S1+

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Surrogate Summary

Client: Earth Systems Response and Restoration

Job ID: 890-7961-1

Project/Site: Mulva

SDG: Lea County, NM

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-7961-3	HA-1	220 S1+	246 S1+
890-7961-4	HA-1	222 S1+	252 S1+
890-7961-5	HA-1	219 S1+	268 S1+
890-7961-6	HA-2	314 S1+	422 S1+
890-7961-7	HA-2	220 S1+	280 S1+
890-7961-8	HA-2	231 S1+	273 S1+
890-7961-9	HA-2	231 S1+	260 S1+
890-7961-10	HA-2	206 S1+	228 S1+
890-7961-11	HA-3	410 S1+	570 S1+
890-7961-12	HA-3	193 S1+	257 S1+
890-7961-13	HA-4	403 S1+	525 S1+
890-7961-14	HA-4	232 S1+	274 S1+
890-7961-15	HA-5	421 S1+	614 S1+
890-7961-16	HA-5	227 S1+	261 S1+
890-7961-17	HA-6	477 S1+	549 S1+
890-7961-18	HA-6	219 S1+	254 S1+
LCS 880-108011/2-A	Lab Control Sample	107	104
LCS 880-108012/2-A	Lab Control Sample	105	101
LCSD 880-108011/3-A	Lab Control Sample Dup	113	107
LCSD 880-108012/3-A	Lab Control Sample Dup	113	110
MB 880-108011/1-A	Method Blank	126	128
MB 880-108012/1-A	Method Blank	154 S1+	165 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-107945/5-A

Matrix: Solid

Analysis Batch: 108056

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 107945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/17/25 10:52	04/19/25 09:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/17/25 10:52	04/19/25 09:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/17/25 10:52	04/19/25 09:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/17/25 10:52	04/19/25 09:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/17/25 10:52	04/19/25 09:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/17/25 10:52	04/19/25 09:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	04/17/25 10:52	04/19/25 09:01	1
1,4-Difluorobenzene (Surr)	70		70 - 130	04/17/25 10:52	04/19/25 09:01	1

Lab Sample ID: LCS 880-107945/1-A

Matrix: Solid

Analysis Batch: 108056

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 107945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1159		mg/Kg		116	70 - 130
Toluene	0.100	0.1095		mg/Kg		109	70 - 130
Ethylbenzene	0.100	0.1061		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.1841		mg/Kg		92	70 - 130
o-Xylene	0.100	0.1032		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-107945/2-A

Matrix: Solid

Analysis Batch: 108056

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 107945

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1150		mg/Kg		115	70 - 130	1	35
Toluene	0.100	0.1069		mg/Kg		107	70 - 130	2	35
Ethylbenzene	0.100	0.1021		mg/Kg		102	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1743		mg/Kg		87	70 - 130	6	35
o-Xylene	0.100	0.09618		mg/Kg		96	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: MB 880-108022/5-A

Matrix: Solid

Analysis Batch: 108064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108022

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/17/25 16:48	04/18/25 21:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/17/25 16:48	04/18/25 21:40	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-108022/5-A

Matrix: Solid

Analysis Batch: 108064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108022

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/17/25 16:48	04/18/25 21:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/17/25 16:48	04/18/25 21:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/17/25 16:48	04/18/25 21:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/17/25 16:48	04/18/25 21:40	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	85		70 - 130	04/17/25 16:48	04/18/25 21:40	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/17/25 16:48	04/18/25 21:40	1

Lab Sample ID: MB 880-108025/5-A

Matrix: Solid

Analysis Batch: 108064

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108025

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<0.00200	U	0.00200		mg/Kg		04/17/25 16:54	04/19/25 08:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/17/25 16:54	04/19/25 08:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/17/25 16:54	04/19/25 08:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/17/25 16:54	04/19/25 08:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/17/25 16:54	04/19/25 08:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/17/25 16:54	04/19/25 08:19	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	84		70 - 130	04/17/25 16:54	04/19/25 08:19	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/17/25 16:54	04/19/25 08:19	1

Lab Sample ID: LCS 880-108025/1-A

Matrix: Solid

Analysis Batch: 108064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09330		mg/Kg		93	70 - 130
Toluene	0.100	0.08575		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.1054		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.1927		mg/Kg		96	70 - 130
o-Xylene	0.100	0.09813		mg/Kg		98	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-108025/2-A

Matrix: Solid

Analysis Batch: 108064

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108025

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1029		mg/Kg		103	70 - 130	10	35
Toluene	0.100	0.09011		mg/Kg		90	70 - 130	5	35
Ethylbenzene	0.100	0.1182		mg/Kg		118	70 - 130	11	35

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-108025/2-A

Matrix: Solid

Analysis Batch: 108064

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108025

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene	0.200	0.2113		mg/Kg		106	70 - 130	9	35
o-Xylene	0.100	0.1070		mg/Kg		107	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: MB 880-108028/5-A

Matrix: Solid

Analysis Batch: 108180

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108028

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/17/25 17:07	04/21/25 11:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/17/25 17:07	04/21/25 11:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/17/25 17:07	04/21/25 11:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/17/25 17:07	04/21/25 11:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/17/25 17:07	04/21/25 11:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/17/25 17:07	04/21/25 11:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	04/17/25 17:07	04/21/25 11:49	1
1,4-Difluorobenzene (Surr)	93		70 - 130	04/17/25 17:07	04/21/25 11:49	1

Lab Sample ID: MB 880-108124/5-A

Matrix: Solid

Analysis Batch: 108056

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108124

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/18/25 14:56	04/18/25 22:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/18/25 14:56	04/18/25 22:03	1
Ethylbenzene	0.002165		0.00200		mg/Kg		04/18/25 14:56	04/18/25 22:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/18/25 14:56	04/18/25 22:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/18/25 14:56	04/18/25 22:03	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/18/25 14:56	04/18/25 22:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	04/18/25 14:56	04/18/25 22:03	1
1,4-Difluorobenzene (Surr)	74		70 - 130	04/18/25 14:56	04/18/25 22:03	1

Lab Sample ID: MB 880-108140/5-A

Matrix: Solid

Analysis Batch: 108167

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/18/25 16:19	04/21/25 11:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/18/25 16:19	04/21/25 11:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/18/25 16:19	04/21/25 11:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/18/25 16:19	04/21/25 11:42	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-108140/5-A

Matrix: Solid

Analysis Batch: 108167

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/18/25 16:19	04/21/25 11:42	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/18/25 16:19	04/21/25 11:42	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130				04/18/25 16:19	04/21/25 11:42	1
1,4-Difluorobenzene (Surr)	93		70 - 130				04/18/25 16:19	04/21/25 11:42	1

Lab Sample ID: MB 880-108183/5-A

Matrix: Solid

Analysis Batch: 108179

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108183

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/21/25 09:09	04/21/25 13:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/21/25 09:09	04/21/25 13:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/21/25 09:09	04/21/25 13:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/21/25 09:09	04/21/25 13:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/21/25 09:09	04/21/25 13:13	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/21/25 09:09	04/21/25 13:13	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	178	S1+	70 - 130				04/21/25 09:09	04/21/25 13:13	1
1,4-Difluorobenzene (Surr)	97		70 - 130				04/21/25 09:09	04/21/25 13:13	1

Lab Sample ID: LCS 880-108183/1-A

Matrix: Solid

Analysis Batch: 108179

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108183

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09519		mg/Kg		95	70 - 130
Toluene	0.100	0.08629		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08673		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.2055		mg/Kg		103	70 - 130
o-Xylene	0.100	0.1038		mg/Kg		104	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	118		70 - 130				
1,4-Difluorobenzene (Surr)	106		70 - 130				

Lab Sample ID: LCSD 880-108183/2-A

Matrix: Solid

Analysis Batch: 108179

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108183

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09904		mg/Kg		99	70 - 130	4	35
Toluene	0.100	0.08132		mg/Kg		81	70 - 130	6	35
Ethylbenzene	0.100	0.1040		mg/Kg		104	70 - 130	18	35
m-Xylene & p-Xylene	0.200	0.2132		mg/Kg		107	70 - 130	4	35
o-Xylene	0.100	0.1043		mg/Kg		104	70 - 130	0	35

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

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

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	125		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: MB 880-108198/5-A

Matrix: Solid

Analysis Batch: 108167

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108198

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/21/25 09:35	04/21/25 22:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/21/25 09:35	04/21/25 22:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/21/25 09:35	04/21/25 22:18	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/21/25 09:35	04/21/25 22:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/21/25 09:35	04/21/25 22:18	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/21/25 09:35	04/21/25 22:18	1

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene (Surr)	102		70 - 130	04/21/25 09:35	04/21/25 22:18	1			
1,4-Difluorobenzene (Surr)	94		70 - 130	04/21/25 09:35	04/21/25 22:18	1			

Lab Sample ID: LCS 880-108198/1-A

Matrix: Solid

Analysis Batch: 108167

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108198

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	0.100	0.09254		mg/Kg		93	70 - 130		
Toluene	0.100	0.08198		mg/Kg		82	70 - 130		
Ethylbenzene	0.100	0.08655		mg/Kg		87	70 - 130		
m-Xylene & p-Xylene	0.200	0.1744		mg/Kg		87	70 - 130		
o-Xylene	0.100	0.09113		mg/Kg		91	70 - 130		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-108198/2-A

Matrix: Solid

Analysis Batch: 108167

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108198

	Spike	LCSD	LCSD					%Rec	RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09238		mg/Kg		92	70 - 130	0	35	
Toluene	0.100	0.08327		mg/Kg		83	70 - 130	2	35	
Ethylbenzene	0.100	0.08822		mg/Kg		88	70 - 130	2	35	
m-Xylene & p-Xylene	0.200	0.1791		mg/Kg		90	70 - 130	3	35	
o-Xylene	0.100	0.09354		mg/Kg		94	70 - 130	3	35	

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

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-108219/5-A

Matrix: Solid

Analysis Batch: 108180

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108219

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/21/25 12:46	04/21/25 23:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/21/25 12:46	04/21/25 23:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/21/25 12:46	04/21/25 23:08	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/21/25 12:46	04/21/25 23:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/21/25 12:46	04/21/25 23:08	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/21/25 12:46	04/21/25 23:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	04/21/25 12:46	04/21/25 23:08	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/21/25 12:46	04/21/25 23:08	1

Lab Sample ID: LCS 880-108219/1-A

Matrix: Solid

Analysis Batch: 108180

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108219

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09912		mg/Kg		99	70 - 130
Toluene	0.100	0.09007		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.1147		mg/Kg		115	70 - 130
m-Xylene & p-Xylene	0.200	0.2105		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1064		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: LCSD 880-108219/2-A

Matrix: Solid

Analysis Batch: 108180

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108219

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1024		mg/Kg		102	70 - 130	3	35
Toluene	0.100	0.09156		mg/Kg		92	70 - 130	2	35
Ethylbenzene	0.100	0.1106		mg/Kg		111	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2360		mg/Kg		118	70 - 130	11	35
o-Xylene	0.100	0.1167		mg/Kg		117	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-108011/1-A

Matrix: Solid

Analysis Batch: 108758

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108011

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/17/25 15:37	04/26/25 20:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/17/25 15:37	04/26/25 20:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/17/25 15:37	04/26/25 20:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130				04/17/25 15:37	04/26/25 20:45	1
o-Terphenyl	128		70 - 130				04/17/25 15:37	04/26/25 20:45	1

Lab Sample ID: LCS 880-108011/2-A

Matrix: Solid

Analysis Batch: 108758

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108011

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1060		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	1000	951.9		mg/Kg		95	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	107		70 - 130				
o-Terphenyl	104		70 - 130				

Lab Sample ID: LCSD 880-108011/3-A

Matrix: Solid

Analysis Batch: 108758

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108011

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1129		mg/Kg		113	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	1006		mg/Kg		101	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	113		70 - 130						
o-Terphenyl	107		70 - 130						

Lab Sample ID: MB 880-108012/1-A

Matrix: Solid

Analysis Batch: 108761

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108012

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/17/25 15:37	04/26/25 20:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/17/25 15:37	04/26/25 20:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/17/25 15:37	04/26/25 20:45	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-108012/1-A

Matrix: Solid

Analysis Batch: 108761

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108012

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	154	S1+	70 - 130	04/17/25 15:37	04/26/25 20:45	1
o-Terphenyl	165	S1+	70 - 130	04/17/25 15:37	04/26/25 20:45	1

Lab Sample ID: LCS 880-108012/2-A

Matrix: Solid

Analysis Batch: 108761

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108012

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	960.1		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	995.9		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: LCSD 880-108012/3-A

Matrix: Solid

Analysis Batch: 108761

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108012

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1049		mg/Kg		105	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1100		mg/Kg		110	70 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	110		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-107982/1-A

Matrix: Solid

Analysis Batch: 108122

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			04/18/25 21:38	1

Lab Sample ID: LCS 880-107982/2-A

Matrix: Solid

Analysis Batch: 108122

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	271.5		mg/Kg		109	90 - 110

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-107982/3-A

Matrix: Solid

Analysis Batch: 108122

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	271.3		mg/Kg		109	90 - 110	0	20

Lab Sample ID: MB 880-107983/1-A

Matrix: Solid

Analysis Batch: 108130

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			04/19/25 07:37	1

Lab Sample ID: LCS 880-107983/2-A

Matrix: Solid

Analysis Batch: 108130

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	250.4		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-107983/3-A

Matrix: Solid

Analysis Batch: 108130

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	250.7		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-7961-18 MS

Matrix: Solid

Analysis Batch: 108130

Client Sample ID: HA-6

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	146		249	413.7		mg/Kg		108	90 - 110		

Lab Sample ID: 890-7961-18 MSD

Matrix: Solid

Analysis Batch: 108130

Client Sample ID: HA-6

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	146		249	405.0		mg/Kg		104	90 - 110	2	20

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

GC VOA

Prep Batch: 107945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Total/NA	Solid	5035	
890-7961-2	HA-1	Total/NA	Solid	5035	
890-7961-3	HA-1	Total/NA	Solid	5035	
890-7961-4	HA-1	Total/NA	Solid	5035	
890-7961-5	HA-1	Total/NA	Solid	5035	
MB 880-107945/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-107945/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-107945/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 108022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-108022/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 108025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-6	HA-2	Total/NA	Solid	5035	
890-7961-7	HA-2	Total/NA	Solid	5035	
890-7961-8	HA-2	Total/NA	Solid	5035	
890-7961-9	HA-2	Total/NA	Solid	5035	
890-7961-10	HA-2	Total/NA	Solid	5035	
MB 880-108025/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-108025/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-108025/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 108028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-108028/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 108056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Total/NA	Solid	8021B	107945
890-7961-2	HA-1	Total/NA	Solid	8021B	107945
890-7961-3	HA-1	Total/NA	Solid	8021B	107945
890-7961-4	HA-1	Total/NA	Solid	8021B	107945
890-7961-5	HA-1	Total/NA	Solid	8021B	107945
MB 880-107945/5-A	Method Blank	Total/NA	Solid	8021B	107945
MB 880-108124/5-A	Method Blank	Total/NA	Solid	8021B	108124
LCS 880-107945/1-A	Lab Control Sample	Total/NA	Solid	8021B	107945
LCSD 880-107945/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	107945

Analysis Batch: 108064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-6	HA-2	Total/NA	Solid	8021B	108025
890-7961-7	HA-2	Total/NA	Solid	8021B	108025
890-7961-8	HA-2	Total/NA	Solid	8021B	108025
890-7961-9	HA-2	Total/NA	Solid	8021B	108025
890-7961-10	HA-2	Total/NA	Solid	8021B	108025
MB 880-108022/5-A	Method Blank	Total/NA	Solid	8021B	108022
MB 880-108025/5-A	Method Blank	Total/NA	Solid	8021B	108025
LCS 880-108025/1-A	Lab Control Sample	Total/NA	Solid	8021B	108025
LCSD 880-108025/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	108025

Eurofins Carlsbad

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

GC VOA

Prep Batch: 108124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-108124/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 108140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-108140/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 108167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-11	HA-3	Total/NA	Solid	8021B	108198
890-7961-12	HA-3	Total/NA	Solid	8021B	108198
890-7961-13	HA-4	Total/NA	Solid	8021B	108198
890-7961-14	HA-4	Total/NA	Solid	8021B	108198
890-7961-15	HA-5	Total/NA	Solid	8021B	108198
890-7961-16	HA-5	Total/NA	Solid	8021B	108198
MB 880-108140/5-A	Method Blank	Total/NA	Solid	8021B	108140
MB 880-108198/5-A	Method Blank	Total/NA	Solid	8021B	108198
LCS 880-108198/1-A	Lab Control Sample	Total/NA	Solid	8021B	108198
LCSD 880-108198/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	108198

Analysis Batch: 108179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Total/NA	Solid	8021B	108183
890-7961-2	HA-1	Total/NA	Solid	8021B	108183
890-7961-3	HA-1	Total/NA	Solid	8021B	108183
890-7961-17	HA-6	Total/NA	Solid	8021B	108183
890-7961-18	HA-6	Total/NA	Solid	8021B	108183
MB 880-108183/5-A	Method Blank	Total/NA	Solid	8021B	108183
LCS 880-108183/1-A	Lab Control Sample	Total/NA	Solid	8021B	108183
LCSD 880-108183/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	108183

Analysis Batch: 108180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-4	HA-1	Total/NA	Solid	8021B	108219
890-7961-5	HA-1	Total/NA	Solid	8021B	108219
890-7961-6	HA-2	Total/NA	Solid	8021B	108219
890-7961-7	HA-2	Total/NA	Solid	8021B	108219
890-7961-8	HA-2	Total/NA	Solid	8021B	108219
890-7961-9	HA-2	Total/NA	Solid	8021B	108219
890-7961-10	HA-2	Total/NA	Solid	8021B	108219
MB 880-108028/5-A	Method Blank	Total/NA	Solid	8021B	108028
MB 880-108219/5-A	Method Blank	Total/NA	Solid	8021B	108219
LCS 880-108219/1-A	Lab Control Sample	Total/NA	Solid	8021B	108219
LCSD 880-108219/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	108219

Prep Batch: 108183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Total/NA	Solid	5035	
890-7961-2	HA-1	Total/NA	Solid	5035	
890-7961-3	HA-1	Total/NA	Solid	5035	
890-7961-17	HA-6	Total/NA	Solid	5035	
890-7961-18	HA-6	Total/NA	Solid	5035	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

GC VOA (Continued)

Prep Batch: 108183 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-108183/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-108183/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-108183/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 108198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-11	HA-3	Total/NA	Solid	5035	
890-7961-12	HA-3	Total/NA	Solid	5035	
890-7961-13	HA-4	Total/NA	Solid	5035	
890-7961-14	HA-4	Total/NA	Solid	5035	
890-7961-15	HA-5	Total/NA	Solid	5035	
890-7961-16	HA-5	Total/NA	Solid	5035	
MB 880-108198/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-108198/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-108198/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 108219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-4	HA-1	Total/NA	Solid	5035	
890-7961-5	HA-1	Total/NA	Solid	5035	
890-7961-6	HA-2	Total/NA	Solid	5035	
890-7961-7	HA-2	Total/NA	Solid	5035	
890-7961-8	HA-2	Total/NA	Solid	5035	
890-7961-9	HA-2	Total/NA	Solid	5035	
890-7961-10	HA-2	Total/NA	Solid	5035	
MB 880-108219/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-108219/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-108219/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 108233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Total/NA	Solid	Total BTEX	
890-7961-2	HA-1	Total/NA	Solid	Total BTEX	
890-7961-3	HA-1	Total/NA	Solid	Total BTEX	
890-7961-4	HA-1	Total/NA	Solid	Total BTEX	
890-7961-5	HA-1	Total/NA	Solid	Total BTEX	
890-7961-6	HA-2	Total/NA	Solid	Total BTEX	
890-7961-7	HA-2	Total/NA	Solid	Total BTEX	
890-7961-8	HA-2	Total/NA	Solid	Total BTEX	
890-7961-9	HA-2	Total/NA	Solid	Total BTEX	
890-7961-10	HA-2	Total/NA	Solid	Total BTEX	
890-7961-11	HA-3	Total/NA	Solid	Total BTEX	
890-7961-12	HA-3	Total/NA	Solid	Total BTEX	
890-7961-13	HA-4	Total/NA	Solid	Total BTEX	
890-7961-14	HA-4	Total/NA	Solid	Total BTEX	
890-7961-15	HA-5	Total/NA	Solid	Total BTEX	
890-7961-16	HA-5	Total/NA	Solid	Total BTEX	
890-7961-17	HA-6	Total/NA	Solid	Total BTEX	
890-7961-18	HA-6	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

GC Semi VOA

Prep Batch: 108011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Total/NA	Solid	8015NM Prep	
890-7961-2	HA-1	Total/NA	Solid	8015NM Prep	
MB 880-108011/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-108011/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-108011/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 108012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-3	HA-1	Total/NA	Solid	8015NM Prep	
890-7961-4	HA-1	Total/NA	Solid	8015NM Prep	
890-7961-5	HA-1	Total/NA	Solid	8015NM Prep	
890-7961-6	HA-2	Total/NA	Solid	8015NM Prep	
890-7961-7	HA-2	Total/NA	Solid	8015NM Prep	
890-7961-8	HA-2	Total/NA	Solid	8015NM Prep	
890-7961-9	HA-2	Total/NA	Solid	8015NM Prep	
890-7961-10	HA-2	Total/NA	Solid	8015NM Prep	
890-7961-11	HA-3	Total/NA	Solid	8015NM Prep	
890-7961-12	HA-3	Total/NA	Solid	8015NM Prep	
890-7961-13	HA-4	Total/NA	Solid	8015NM Prep	
890-7961-14	HA-4	Total/NA	Solid	8015NM Prep	
890-7961-15	HA-5	Total/NA	Solid	8015NM Prep	
890-7961-16	HA-5	Total/NA	Solid	8015NM Prep	
890-7961-17	HA-6	Total/NA	Solid	8015NM Prep	
890-7961-18	HA-6	Total/NA	Solid	8015NM Prep	
MB 880-108012/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-108012/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-108012/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 108758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Total/NA	Solid	8015B NM	108011
890-7961-2	HA-1	Total/NA	Solid	8015B NM	108011
MB 880-108011/1-A	Method Blank	Total/NA	Solid	8015B NM	108011
LCS 880-108011/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	108011
LCSD 880-108011/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	108011

Analysis Batch: 108761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-3	HA-1	Total/NA	Solid	8015B NM	108012
890-7961-4	HA-1	Total/NA	Solid	8015B NM	108012
890-7961-5	HA-1	Total/NA	Solid	8015B NM	108012
890-7961-6	HA-2	Total/NA	Solid	8015B NM	108012
890-7961-7	HA-2	Total/NA	Solid	8015B NM	108012
890-7961-8	HA-2	Total/NA	Solid	8015B NM	108012
890-7961-9	HA-2	Total/NA	Solid	8015B NM	108012
890-7961-10	HA-2	Total/NA	Solid	8015B NM	108012
890-7961-11	HA-3	Total/NA	Solid	8015B NM	108012
890-7961-12	HA-3	Total/NA	Solid	8015B NM	108012
890-7961-13	HA-4	Total/NA	Solid	8015B NM	108012
890-7961-14	HA-4	Total/NA	Solid	8015B NM	108012
890-7961-15	HA-5	Total/NA	Solid	8015B NM	108012

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

GC Semi VOA (Continued)

Analysis Batch: 108761 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-16	HA-5	Total/NA	Solid	8015B NM	108012
890-7961-17	HA-6	Total/NA	Solid	8015B NM	108012
890-7961-18	HA-6	Total/NA	Solid	8015B NM	108012
MB 880-108012/1-A	Method Blank	Total/NA	Solid	8015B NM	108012
LCS 880-108012/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	108012
LCSD 880-108012/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	108012

Analysis Batch: 108858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Total/NA	Solid	8015 NM	
890-7961-2	HA-1	Total/NA	Solid	8015 NM	
890-7961-3	HA-1	Total/NA	Solid	8015 NM	
890-7961-4	HA-1	Total/NA	Solid	8015 NM	
890-7961-5	HA-1	Total/NA	Solid	8015 NM	
890-7961-6	HA-2	Total/NA	Solid	8015 NM	
890-7961-7	HA-2	Total/NA	Solid	8015 NM	
890-7961-8	HA-2	Total/NA	Solid	8015 NM	
890-7961-9	HA-2	Total/NA	Solid	8015 NM	
890-7961-10	HA-2	Total/NA	Solid	8015 NM	
890-7961-11	HA-3	Total/NA	Solid	8015 NM	
890-7961-12	HA-3	Total/NA	Solid	8015 NM	
890-7961-13	HA-4	Total/NA	Solid	8015 NM	
890-7961-14	HA-4	Total/NA	Solid	8015 NM	
890-7961-15	HA-5	Total/NA	Solid	8015 NM	
890-7961-16	HA-5	Total/NA	Solid	8015 NM	
890-7961-17	HA-6	Total/NA	Solid	8015 NM	
890-7961-18	HA-6	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 107982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Soluble	Solid	DI Leach	
890-7961-2	HA-1	Soluble	Solid	DI Leach	
890-7961-3	HA-1	Soluble	Solid	DI Leach	
890-7961-4	HA-1	Soluble	Solid	DI Leach	
890-7961-5	HA-1	Soluble	Solid	DI Leach	
890-7961-6	HA-2	Soluble	Solid	DI Leach	
890-7961-7	HA-2	Soluble	Solid	DI Leach	
890-7961-8	HA-2	Soluble	Solid	DI Leach	
MB 880-107982/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-107982/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-107982/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 107983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-9	HA-2	Soluble	Solid	DI Leach	
890-7961-10	HA-2	Soluble	Solid	DI Leach	
890-7961-11	HA-3	Soluble	Solid	DI Leach	
890-7961-12	HA-3	Soluble	Solid	DI Leach	
890-7961-13	HA-4	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

HPLC/IC (Continued)

Leach Batch: 107983 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-14	HA-4	Soluble	Solid	DI Leach	
890-7961-15	HA-5	Soluble	Solid	DI Leach	
890-7961-16	HA-5	Soluble	Solid	DI Leach	
890-7961-17	HA-6	Soluble	Solid	DI Leach	
890-7961-18	HA-6	Soluble	Solid	DI Leach	
MB 880-107983/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-107983/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-107983/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-7961-18 MS	HA-6	Soluble	Solid	DI Leach	
890-7961-18 MSD	HA-6	Soluble	Solid	DI Leach	

Analysis Batch: 108122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-1	HA-1	Soluble	Solid	300.0	107982
890-7961-2	HA-1	Soluble	Solid	300.0	107982
890-7961-3	HA-1	Soluble	Solid	300.0	107982
890-7961-4	HA-1	Soluble	Solid	300.0	107982
890-7961-5	HA-1	Soluble	Solid	300.0	107982
890-7961-6	HA-2	Soluble	Solid	300.0	107982
890-7961-7	HA-2	Soluble	Solid	300.0	107982
890-7961-8	HA-2	Soluble	Solid	300.0	107982
MB 880-107982/1-A	Method Blank	Soluble	Solid	300.0	107982
LCS 880-107982/2-A	Lab Control Sample	Soluble	Solid	300.0	107982
LCSD 880-107982/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	107982

Analysis Batch: 108130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-7961-9	HA-2	Soluble	Solid	300.0	107983
890-7961-10	HA-2	Soluble	Solid	300.0	107983
890-7961-11	HA-3	Soluble	Solid	300.0	107983
890-7961-12	HA-3	Soluble	Solid	300.0	107983
890-7961-13	HA-4	Soluble	Solid	300.0	107983
890-7961-14	HA-4	Soluble	Solid	300.0	107983
890-7961-15	HA-5	Soluble	Solid	300.0	107983
890-7961-16	HA-5	Soluble	Solid	300.0	107983
890-7961-17	HA-6	Soluble	Solid	300.0	107983
890-7961-18	HA-6	Soluble	Solid	300.0	107983
MB 880-107983/1-A	Method Blank	Soluble	Solid	300.0	107983
LCS 880-107983/2-A	Lab Control Sample	Soluble	Solid	300.0	107983
LCSD 880-107983/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	107983
890-7961-18 MS	HA-6	Soluble	Solid	300.0	107983
890-7961-18 MSD	HA-6	Soluble	Solid	300.0	107983

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-1

Lab Sample ID: 890-7961-1

Date Collected: 04/16/25 08:30

Matrix: Solid

Date Received: 04/16/25 14:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	108183	04/21/25 09:09	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108179	04/21/25 20:18	MNR	EET MID
Total/NA	Prep	5035			5.02 g	5 mL	107945	04/18/25 14:50	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108056	04/19/25 15:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/21/25 20:18	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 02:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	108011	04/17/25 16:06	EL	EET MID
Total/NA	Analysis	8015B NM		10	1 uL	1 uL	108758	04/27/25 02:54	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	107982	04/17/25 13:50	SA	EET MID
Soluble	Analysis	300.0		1			108122	04/19/25 00:15	SMC	EET MID

Client Sample ID: HA-1

Lab Sample ID: 890-7961-2

Date Collected: 04/16/25 08:35

Matrix: Solid

Date Received: 04/16/25 14:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	108183	04/21/25 09:09	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108179	04/21/25 20:38	MNR	EET MID
Total/NA	Prep	5035			5.03 g	5 mL	107945	04/18/25 14:50	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108056	04/19/25 16:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/21/25 20:38	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 03:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	108011	04/17/25 16:06	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	108758	04/27/25 03:09	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	107982	04/17/25 13:50	SA	EET MID
Soluble	Analysis	300.0		1			108122	04/19/25 00:37	SMC	EET MID

Client Sample ID: HA-1

Lab Sample ID: 890-7961-3

Date Collected: 04/16/25 08:40

Matrix: Solid

Date Received: 04/16/25 14:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	108183	04/21/25 09:09	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108179	04/21/25 20:59	MNR	EET MID
Total/NA	Prep	5035			5.01 g	5 mL	107945	04/18/25 14:50	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108056	04/19/25 16:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/21/25 20:59	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/26/25 23:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/26/25 23:10	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	107982	04/17/25 13:50	SA	EET MID
Soluble	Analysis	300.0		1			108122	04/19/25 00:45	SMC	EET MID

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-1**Lab Sample ID: 890-7961-4****Date Collected: 04/16/25 08:45****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	108219	04/21/25 12:46	MNR	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108180	04/22/25 05:01	MNR	EET MID
Total/NA	Prep	5035			4.99 g	5 mL	107945	04/18/25 14:50	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108056	04/19/25 16:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 05:01	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/26/25 23:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/26/25 23:25	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	107982	04/17/25 13:50	SA	EET MID
Soluble	Analysis	300.0		1			108122	04/19/25 00:52	SMC	EET MID

Client Sample ID: HA-1**Lab Sample ID: 890-7961-5****Date Collected: 04/16/25 08:50****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	108219	04/21/25 12:46	MNR	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108180	04/22/25 05:21	MNR	EET MID
Total/NA	Prep	5035			5.01 g	5 mL	107945	04/18/25 14:50	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108056	04/19/25 17:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 05:21	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/26/25 23:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/26/25 23:40	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	107982	04/17/25 13:50	SA	EET MID
Soluble	Analysis	300.0		1			108122	04/19/25 01:00	SMC	EET MID

Client Sample ID: HA-2**Lab Sample ID: 890-7961-6****Date Collected: 04/16/25 08:55****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	108025	04/18/25 15:11	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108064	04/19/25 14:52	MNR	EET MID
Total/NA	Prep	5035			4.99 g	5 mL	108219	04/21/25 12:46	MNR	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108180	04/22/25 05:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 05:42	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/26/25 23:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		10	1 uL	1 uL	108761	04/26/25 23:54	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	107982	04/17/25 13:50	SA	EET MID
Soluble	Analysis	300.0		1			108122	04/19/25 01:07	SMC	EET MID

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-2**Lab Sample ID: 890-7961-7****Date Collected: 04/16/25 09:00****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	108025	04/18/25 15:11	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108064	04/19/25 15:12	MNR	EET MID
Total/NA	Prep	5035			5.02 g	5 mL	108219	04/21/25 12:46	MNR	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108180	04/22/25 06:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 06:02	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 00:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/27/25 00:09	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	107982	04/17/25 13:50	SA	EET MID
Soluble	Analysis	300.0		1			108122	04/19/25 01:15	SMC	EET MID

Client Sample ID: HA-2**Lab Sample ID: 890-7961-8****Date Collected: 04/16/25 09:05****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	108025	04/18/25 15:11	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108064	04/19/25 15:33	MNR	EET MID
Total/NA	Prep	5035			5.03 g	5 mL	108219	04/21/25 12:46	MNR	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108180	04/22/25 06:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 06:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 00:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/27/25 00:24	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	107982	04/17/25 13:50	SA	EET MID
Soluble	Analysis	300.0		1			108122	04/19/25 01:22	SMC	EET MID

Client Sample ID: HA-2**Lab Sample ID: 890-7961-9****Date Collected: 04/16/25 09:10****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	108025	04/18/25 15:11	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108064	04/19/25 15:53	MNR	EET MID
Total/NA	Prep	5035			5.01 g	5 mL	108219	04/21/25 12:46	MNR	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108180	04/22/25 06:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 06:43	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 00:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/27/25 00:54	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 08:20	SMC	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-2**Lab Sample ID: 890-7961-10****Date Collected: 04/16/25 09:15****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	108025	04/18/25 15:11	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	108064	04/19/25 16:14	MNR	EET MID
Total/NA	Prep	5035			4.99 g	5 mL	108219	04/21/25 12:46	MNR	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108180	04/22/25 07:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 07:04	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 01:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/27/25 01:08	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 08:27	SMC	EET MID

Client Sample ID: HA-3**Lab Sample ID: 890-7961-11****Date Collected: 04/16/25 09:20****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	108198	04/21/25 09:35	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108167	04/22/25 04:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 04:30	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 01:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		20	1 uL	1 uL	108761	04/27/25 01:24	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 08:34	SMC	EET MID

Client Sample ID: HA-3**Lab Sample ID: 890-7961-12****Date Collected: 04/16/25 09:25****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	108198	04/21/25 09:35	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108167	04/22/25 04:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 04:51	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 01:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/27/25 01:39	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 08:41	SMC	EET MID

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-4**Lab Sample ID: 890-7961-13****Date Collected: 04/16/25 09:30****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	108198	04/21/25 09:35	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108167	04/22/25 05:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 05:11	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 01:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		20	1 uL	1 uL	108761	04/27/25 01:55	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 09:03	SMC	EET MID

Client Sample ID: HA-4**Lab Sample ID: 890-7961-14****Date Collected: 04/16/25 09:35****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	108198	04/21/25 09:35	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108167	04/22/25 05:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 05:32	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 02:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/27/25 02:09	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 09:10	SMC	EET MID

Client Sample ID: HA-5**Lab Sample ID: 890-7961-15****Date Collected: 04/16/25 09:40****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	108198	04/21/25 09:35	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108167	04/22/25 05:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 05:52	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 02:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		20	1 uL	1 uL	108761	04/27/25 02:24	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 09:17	SMC	EET MID

Client Sample ID: HA-5**Lab Sample ID: 890-7961-16****Date Collected: 04/16/25 09:45****Matrix: Solid****Date Received: 04/16/25 14:03**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	108198	04/21/25 09:35	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108167	04/22/25 06:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/22/25 06:13	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Client Sample ID: HA-5

Lab Sample ID: 890-7961-16

Date Collected: 04/16/25 09:45

Matrix: Solid

Date Received: 04/16/25 14:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			108858	04/27/25 02:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/27/25 02:39	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 09:24	SMC	EET MID

Client Sample ID: HA-6

Lab Sample ID: 890-7961-17

Date Collected: 04/16/25 09:50

Matrix: Solid

Date Received: 04/16/25 14:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	108183	04/21/25 09:09	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108179	04/21/25 21:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/21/25 21:19	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 02:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		20	1 uL	1 uL	108761	04/27/25 02:54	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 09:32	SMC	EET MID

Client Sample ID: HA-6

Lab Sample ID: 890-7961-18

Date Collected: 04/16/25 09:55

Matrix: Solid

Date Received: 04/16/25 14:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	108183	04/21/25 09:09	AA	EET MID
Total/NA	Analysis	8021B		1000	5 mL	5 mL	108179	04/21/25 21:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			108233	04/21/25 21:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			108858	04/27/25 03:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	108012	04/17/25 16:10	EL	EET MID
Total/NA	Analysis	8015B NM		5	1 uL	1 uL	108761	04/27/25 03:09	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	107983	04/17/25 13:52	SA	EET MID
Soluble	Analysis	300.0		1			108130	04/19/25 09:39	SMC	EET MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-7961-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-7961-1	HA-1	Solid	04/16/25 08:30	04/16/25 14:03	0.5
890-7961-2	HA-1	Solid	04/16/25 08:35	04/16/25 14:03	1
890-7961-3	HA-1	Solid	04/16/25 08:40	04/16/25 14:03	2
890-7961-4	HA-1	Solid	04/16/25 08:45	04/16/25 14:03	3
890-7961-5	HA-1	Solid	04/16/25 08:50	04/16/25 14:03	4
890-7961-6	HA-2	Solid	04/16/25 08:55	04/16/25 14:03	0.5
890-7961-7	HA-2	Solid	04/16/25 09:00	04/16/25 14:03	1
890-7961-8	HA-2	Solid	04/16/25 09:05	04/16/25 14:03	2
890-7961-9	HA-2	Solid	04/16/25 09:10	04/16/25 14:03	3
890-7961-10	HA-2	Solid	04/16/25 09:15	04/16/25 14:03	4
890-7961-11	HA-3	Solid	04/16/25 09:20	04/16/25 14:03	0.5
890-7961-12	HA-3	Solid	04/16/25 09:25	04/16/25 14:03	1
890-7961-13	HA-4	Solid	04/16/25 09:30	04/16/25 14:03	0.5
890-7961-14	HA-4	Solid	04/16/25 09:35	04/16/25 14:03	1
890-7961-15	HA-5	Solid	04/16/25 09:40	04/16/25 14:03	0.5
890-7961-16	HA-5	Solid	04/16/25 09:45	04/16/25 14:03	1
890-7961-17	HA-6	Solid	04/16/25 09:50	04/16/25 14:03	0.5
890-7961-18	HA-6	Solid	04/16/25 09:55	04/16/25 14:03	1



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



890-7961 Chain of Custody

www.xenco.com Page 1 of 2

Project Manager:	Gilbert Moreno	Bill to: (if different)	Earth Systems R & R
Company Name:	Earth Systems R&R	Company Name:	
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gmorreno@earthsys.net

Work Order Comments Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	
--	--

Project Name:	Mulva	Turn Around	Pres. Code	ANALYSIS REQUEST												Preservative Codes	
Project Number:	VP-210	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush														None: NO	DI Water: H ₂ O
Project Location:	Lea County, NM	Due Date:	5 Day TAT													Cool: Cool	MeOH: Me
Sampler's Name:	Gilbert Moreno	TAT starts the day received by the lab, if received by 4:30pm														HCL: HC	HNO ₃ : HN
POWOW #:		Temp Blank:	(Yes) No													H ₂ SO ₄ : H ₂	NaOH: Na
SAMPLE RECEIPT	Samples Received Intact:	(Yes) No	Thermometer ID:													H ₃ PO ₄ : HP	
	Cooler Custody Seals:	Yes No	Correction Factor:													NaHSO ₄ : NABIS	
	Sample Custody Seals:	Yes No	Temperature Reading:													Na ₂ S ₂ O ₃ : NaSO ₃	
	Total Containers:		Corrected Temperature:													Zn Acetate+NaOH: Zn	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (feet)	Grab/Comp	# of Cont	TPH -NM	Chloride-NM	BTEX-NM	Hold	24 Hr Rush	Sample Comments
HA-1	S	4.16.25	8:30	0.5	Grab/	1	X	X	X			Incident Number nAPP2509160854
HA-1	S	4.16.25	8:35	1	Grab/	1	X	X	X			
HA-1	S	4.16.25	8:40	2	Grab/	1	X	X	X			
HA-1	S	4.16.25	8:45	3	Grab/	1	X	X	X			
HA-1	S	4.16.25	8:50	4	Grab/	1	X	X	X			
HA-2	S	4.16.25	8:55	0.5	Grab/	1	X	X	X			
HA-2	S	4.16.25	9:00	1	Grab/	1	X	X	X			
HA-2	S	4.16.25	9:05	2	Grab/	1	X	X	X			
HA-2	S	4.16.25	9:10	3	Grab/	1	X	X	X			

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Hg: 1631 / 245.1 / 7470 / 7471

Circle Method(s) and Metal(s) to be analyzed

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	4/16/14			



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: _____

www.xenco.com Page 2 of 2

Project Manager:	Gilbert Moreno	Bill to: (if different)	Earth Systems R & R
Company Name:	Earth Systems R&R	Company Name:	
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gmoreno@earthsys.net

Work Order Comments Program: UST/PPST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: _____ Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	
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Project Name:	Mulva	Turn Around	Pres. Code	ANALYSIS REQUEST												Preservative Codes		
Project Number:	VP-210	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush														None: NO	DI Water: H ₂ O	
Project Location:	Lea County, NM	Due Date:	5 Day TAT													COOL: COOL	MeOH: Me	
Sampler's Name:	Gilbert Moreno	TAT starts the day received by the lab, if received by 4:30pm														HCL: HC	HNO ₃ : HN	
POWOW #:																H ₂ SO ₄ : H ₂	NaOH: Na	
SAMPLE RECEIPT Samples Received Intact: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cooler Custody Seals: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Sample Custody Seals: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Total Containers: _____	Temp Blank:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wet Ice:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No													H ₃ PO ₄ : HP	
	Thermometer ID:																NaHSO ₄ : NABIS	
	Correction Factor:																Na ₂ S ₂ O ₃ : NaSO ₃	
	Temperature Reading:																Zn Acetate+NaOH: Zn	
Corrected Temperature:																	NaOH+Ascorbic Acid: SAPC	

Sample Identification							Matrix	Date Sampled	Time Sampled	Depth (feet)	Grab/Comp	# of Cont	TPH -NM	Chloride-	BTEX-NM	Hold	24 Hr Ru																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				</
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Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Hg: 1631 / 245.1 / 7470 / 7471

Circle Method(s) and Metal(s) to be analyzed

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	4/16/14			

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-7961-1

SDG Number: Lea County, NM

Login Number: 7961

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-7961-1

SDG Number: Lea County, NM

Login Number: 7961

List Number: 2

Creator: Vasquez, Julisa

List Source: Eurofins Midland

List Creation: 04/17/25 11:42 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765
Generated 7/7/2025 7:28:55 PM

JOB DESCRIPTION

MULVA
Lea County, NM

JOB NUMBER

890-8372-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



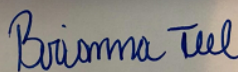
Eurofins Carlsbad

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



Generated
7/7/2025 7:28:55 PM

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

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Laboratory Job ID: 890-8372-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	11
QC Sample Results	12
QC Association Summary	16
Lab Chronicle	19
Certification Summary	21
Method Summary	22
Sample Summary	23
Chain of Custody	24
Receipt Checklists	26

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

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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

Case Narrative

Client: Earth Systems Response and Restoration
Project: MULVA

Job ID: 890-8372-1

Job ID: 890-8372-1

Eurofins Carlsbad

Job Narrative 890-8372-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 7/3/2025 1:52 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 0.2°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: CS - 1 (890-8372-1), CS - 2 (890-8372-2), CS - 3 (890-8372-3), SW - 1 (890-8372-4), SW - 2 (890-8372-5) and SW - 3 (890-8372-6).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: SW - 2 (890-8372-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The following samples were diluted due to the nature of the sample matrix: CS - 1 (890-8372-1), SW - 2 (890-8372-5) and SW - 3 (890-8372-6). Elevated reporting limits (RLs) are provided.

Method 8021B: Surrogate recovery for the following samples were outside control limits: CS - 2 (890-8372-2) and CS - 3 (890-8372-3). Evidence of matrix interference due to high target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

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

Diesel Range Organics

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: CS - 2 (890-8372-2) and CS - 3 (890-8372-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-113667 and analytical batch 880-113676 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: CS - 1 (890-8372-1), CS - 2 (890-8372-2), CS - 3 (890-8372-3), SW - 1 (890-8372-4), SW - 2 (890-8372-5), SW - 3 (890-8372-6), (890-8372-A-1-H MS) and (890-8372-A-1-I MSD).

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

Eurofins Carlsbad

Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Client Sample ID: CS - 1

Lab Sample ID: 890-8372-1

Date Collected: 07/03/25 08:00

Matrix: Solid

Date Received: 07/03/25 13:52

Sample Depth: 6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0497	U	0.0497		mg/Kg		07/07/25 09:39	07/07/25 12:40	25
Toluene	0.104		0.0497		mg/Kg		07/07/25 09:39	07/07/25 12:40	25
Ethylbenzene	0.113		0.0497		mg/Kg		07/07/25 09:39	07/07/25 12:40	25
m-Xylene & p-Xylene	0.598		0.0994		mg/Kg		07/07/25 09:39	07/07/25 12:40	25
o-Xylene	0.326		0.0497		mg/Kg		07/07/25 09:39	07/07/25 12:40	25
Xylenes, Total	0.924		0.0994		mg/Kg		07/07/25 09:39	07/07/25 12:40	25
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130				07/07/25 09:39	07/07/25 12:40	25
1,4-Difluorobenzene (Surr)	77		70 - 130				07/07/25 09:39	07/07/25 12:40	25

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1.14		0.0994		mg/Kg			07/07/25 12:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	294		49.9		mg/Kg			07/07/25 12:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/07/25 07:54	07/07/25 12:38	1
Diesel Range Organics (Over C10-C28)	294		49.9		mg/Kg		07/07/25 07:54	07/07/25 12:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/07/25 07:54	07/07/25 12:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				07/07/25 07:54	07/07/25 12:38	1
o-Terphenyl	115		70 - 130				07/07/25 07:54	07/07/25 12:38	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.7	F1	9.92		mg/Kg			07/07/25 10:04	1

Client Sample ID: CS - 2

Lab Sample ID: 890-8372-2

Date Collected: 07/03/25 08:05

Matrix: Solid

Date Received: 07/03/25 13:52

Sample Depth: 6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.579		0.202		mg/Kg		07/05/25 17:24	07/06/25 03:12	100
Toluene	7.39		0.202		mg/Kg		07/05/25 17:24	07/06/25 03:12	100
Ethylbenzene	2.84		0.202		mg/Kg		07/05/25 17:24	07/06/25 03:12	100
m-Xylene & p-Xylene	15.2		0.403		mg/Kg		07/05/25 17:24	07/06/25 03:12	100
o-Xylene	5.96		0.202		mg/Kg		07/05/25 17:24	07/06/25 03:12	100
Xylenes, Total	21.2		0.403		mg/Kg		07/05/25 17:24	07/06/25 03:12	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130				07/05/25 17:24	07/06/25 03:12	100

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Client Sample ID: CS - 2

Lab Sample ID: 890-8372-2

Date Collected: 07/03/25 08:05

Matrix: Solid

Date Received: 07/03/25 13:52

Sample Depth: 6

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	83		70 - 130	07/05/25 17:24	07/06/25 03:12	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	32.0		0.403		mg/Kg			07/06/25 03:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1780		49.9		mg/Kg			07/07/25 12:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	453		49.9		mg/Kg		07/07/25 07:54	07/07/25 12:53	1
Diesel Range Organics (Over C10-C28)	1330		49.9		mg/Kg		07/07/25 07:54	07/07/25 12:53	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/07/25 07:54	07/07/25 12:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130				07/07/25 07:54	07/07/25 12:53	1
o-Terphenyl	132	S1+	70 - 130				07/07/25 07:54	07/07/25 12:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	142		10.0		mg/Kg			07/07/25 10:21	1

Client Sample ID: CS - 3

Lab Sample ID: 890-8372-3

Date Collected: 07/03/25 08:10

Matrix: Solid

Date Received: 07/03/25 13:52

Sample Depth: 6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.782		0.199		mg/Kg		07/05/25 17:24	07/06/25 03:33	100
Toluene	14.2		0.199		mg/Kg		07/05/25 17:24	07/06/25 03:33	100
Ethylbenzene	7.25		0.199		mg/Kg		07/05/25 17:24	07/06/25 03:33	100
m-Xylene & p-Xylene	24.1		0.398		mg/Kg		07/05/25 17:24	07/06/25 03:33	100
o-Xylene	9.71		0.199		mg/Kg		07/05/25 17:24	07/06/25 03:33	100
Xylenes, Total	33.8		0.398		mg/Kg		07/05/25 17:24	07/06/25 03:33	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	162	S1+	70 - 130	07/05/25 17:24	07/06/25 03:33	100
1,4-Difluorobenzene (Surr)	88		70 - 130	07/05/25 17:24	07/06/25 03:33	100

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	56.0		0.398		mg/Kg			07/06/25 03:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2230		50.0		mg/Kg			07/07/25 13:08	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Client Sample ID: CS - 3

Lab Sample ID: 890-8372-3

Date Collected: 07/03/25 08:10

Matrix: Solid

Date Received: 07/03/25 13:52

Sample Depth: 6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	547		50.0		mg/Kg		07/07/25 07:54	07/07/25 13:08	1
Diesel Range Organics (Over C10-C28)	1680		50.0		mg/Kg		07/07/25 07:54	07/07/25 13:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/25 07:54	07/07/25 13:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				07/07/25 07:54	07/07/25 13:08	1
o-Terphenyl	131	S1+	70 - 130				07/07/25 07:54	07/07/25 13:08	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		9.96		mg/Kg			07/07/25 10:26	1

Client Sample ID: SW - 1

Lab Sample ID: 890-8372-4

Date Collected: 07/03/25 08:15

Matrix: Solid

Date Received: 07/03/25 13:52

Sample Depth: 0-6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/07/25 09:39	07/07/25 16:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/07/25 09:39	07/07/25 16:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/07/25 09:39	07/07/25 16:37	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/07/25 09:39	07/07/25 16:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/07/25 09:39	07/07/25 16:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/07/25 09:39	07/07/25 16:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130				07/07/25 09:39	07/07/25 16:37	1
1,4-Difluorobenzene (Surr)	86		70 - 130				07/07/25 09:39	07/07/25 16:37	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/07/25 16:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	72.6		49.8		mg/Kg			07/07/25 13:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/07/25 07:54	07/07/25 13:22	1
Diesel Range Organics (Over C10-C28)	72.6		49.8		mg/Kg		07/07/25 07:54	07/07/25 13:22	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/07/25 07:54	07/07/25 13:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				07/07/25 07:54	07/07/25 13:22	1
o-Terphenyl	105		70 - 130				07/07/25 07:54	07/07/25 13:22	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Client Sample ID: SW - 1

Lab Sample ID: 890-8372-4

Date Collected: 07/03/25 08:15

Matrix: Solid

Date Received: 07/03/25 13:52

Sample Depth: 0-6

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	145		9.92		mg/Kg			07/07/25 10:32	1

Client Sample ID: SW - 2

Lab Sample ID: 890-8372-5

Date Collected: 07/03/25 08:20

Matrix: Solid

Date Received: 07/03/25 13:52

Sample Depth: 0-6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0101	U	0.0101		mg/Kg		07/07/25 09:39	07/07/25 13:42	5
Toluene	<0.0101	U	0.0101		mg/Kg		07/07/25 09:39	07/07/25 13:42	5
Ethylbenzene	<0.0101	U	0.0101		mg/Kg		07/07/25 09:39	07/07/25 13:42	5
m-Xylene & p-Xylene	<0.0202	U	0.0202		mg/Kg		07/07/25 09:39	07/07/25 13:42	5
o-Xylene	<0.0101	U	0.0101		mg/Kg		07/07/25 09:39	07/07/25 13:42	5
Xylenes, Total	<0.0202	U	0.0202		mg/Kg		07/07/25 09:39	07/07/25 13:42	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	151	S1+	70 - 130				07/07/25 09:39	07/07/25 13:42	5
1,4-Difluorobenzene (Surr)	75		70 - 130				07/07/25 09:39	07/07/25 13:42	5

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0202	U	0.0202		mg/Kg			07/07/25 13:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			07/07/25 13:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/07/25 07:54	07/07/25 13:37	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/07/25 07:54	07/07/25 13:37	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/07/25 07:54	07/07/25 13:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130				07/07/25 07:54	07/07/25 13:37	1
o-Terphenyl	109		70 - 130				07/07/25 07:54	07/07/25 13:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	142		10.1		mg/Kg			07/07/25 10:38	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Client Sample ID: SW - 3

Lab Sample ID: 890-8372-6

Date Collected: 07/03/25 08:25

Matrix: Solid

Date Received: 07/03/25 13:52

Sample Depth: 0-6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00992	U	0.00992		mg/Kg		07/07/25 09:39	07/07/25 14:02	5
Toluene	<0.00992	U	0.00992		mg/Kg		07/07/25 09:39	07/07/25 14:02	5
Ethylbenzene	<0.00992	U	0.00992		mg/Kg		07/07/25 09:39	07/07/25 14:02	5
m-Xylene & p-Xylene	<0.0198	U	0.0198		mg/Kg		07/07/25 09:39	07/07/25 14:02	5
o-Xylene	<0.00992	U	0.00992		mg/Kg		07/07/25 09:39	07/07/25 14:02	5
Xylenes, Total	<0.0198	U	0.0198		mg/Kg		07/07/25 09:39	07/07/25 14:02	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	07/07/25 09:39	07/07/25 14:02	5
1,4-Difluorobenzene (Surr)	83		70 - 130	07/07/25 09:39	07/07/25 14:02	5

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.0198	U	0.0198		mg/Kg			07/07/25 14:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			07/07/25 13:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		07/07/25 07:54	07/07/25 13:52	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		07/07/25 07:54	07/07/25 13:52	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/07/25 07:54	07/07/25 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	07/07/25 07:54	07/07/25 13:52	1
o-Terphenyl	106		70 - 130	07/07/25 07:54	07/07/25 13:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	94.5		9.94		mg/Kg			07/07/25 10:55	1

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Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8372-1	CS - 1	123	77
890-8372-2	CS - 2	133 S1+	83
890-8372-3	CS - 3	162 S1+	88
890-8372-4	SW - 1	114	86
890-8372-5	SW - 2	151 S1+	75
890-8372-6	SW - 3	127	83
LCS 880-113658/1-A	Lab Control Sample	95	93
LCS 880-113677/1-A	Lab Control Sample	97	100
LCSD 880-113658/2-A	Lab Control Sample Dup	102	95
LCSD 880-113677/2-A	Lab Control Sample Dup	99	100
MB 880-113658/5-A	Method Blank	101	89
MB 880-113677/5-A	Method Blank	99	85
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8372-1	CS - 1	105	115
890-8372-2	CS - 2	122	132 S1+
890-8372-3	CS - 3	120	131 S1+
890-8372-4	SW - 1	99	105
890-8372-5	SW - 2	102	109
890-8372-6	SW - 3	100	106
LCS 880-113664/2-A	Lab Control Sample	78	77
LCSD 880-113664/3-A	Lab Control Sample Dup	78	76
MB 880-113664/1-A	Method Blank	100	102
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-113658/5-A

Matrix: Solid

Analysis Batch: 113655

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113658

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/05/25 17:24	07/05/25 22:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/05/25 17:24	07/05/25 22:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/05/25 17:24	07/05/25 22:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/05/25 17:24	07/05/25 22:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/05/25 17:24	07/05/25 22:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/05/25 17:24	07/05/25 22:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	07/05/25 17:24	07/05/25 22:12	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/05/25 17:24	07/05/25 22:12	1

Lab Sample ID: LCS 880-113658/1-A

Matrix: Solid

Analysis Batch: 113655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 113658

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08585		mg/Kg		86	70 - 130
Toluene	0.100	0.08512		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.09616		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	0.200	0.1958		mg/Kg		98	70 - 130
o-Xylene	0.100	0.09821		mg/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: LCSD 880-113658/2-A

Matrix: Solid

Analysis Batch: 113655

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113658

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09279		mg/Kg		93	70 - 130	8	35
Toluene	0.100	0.09016		mg/Kg		90	70 - 130	6	35
Ethylbenzene	0.100	0.1007		mg/Kg		101	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2037		mg/Kg		102	70 - 130	4	35
o-Xylene	0.100	0.1027		mg/Kg		103	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: MB 880-113677/5-A

Matrix: Solid

Analysis Batch: 113674

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/07/25 09:39	07/07/25 11:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/07/25 09:39	07/07/25 11:38	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-113677/5-A

Matrix: Solid

Analysis Batch: 113674

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/07/25 09:39	07/07/25 11:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/07/25 09:39	07/07/25 11:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/07/25 09:39	07/07/25 11:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/07/25 09:39	07/07/25 11:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	07/07/25 09:39	07/07/25 11:38	1
1,4-Difluorobenzene (Surr)	85		70 - 130	07/07/25 09:39	07/07/25 11:38	1

Lab Sample ID: LCS 880-113677/1-A

Matrix: Solid

Analysis Batch: 113674

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 113677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09360		mg/Kg		94	70 - 130
Toluene	0.100	0.09203		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.1015		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2063		mg/Kg		103	70 - 130
o-Xylene	0.100	0.1032		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-113677/2-A

Matrix: Solid

Analysis Batch: 113674

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09427		mg/Kg		94	70 - 130	1	35
Toluene	0.100	0.09383		mg/Kg		94	70 - 130	2	35
Ethylbenzene	0.100	0.1043		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2141		mg/Kg		107	70 - 130	4	35
o-Xylene	0.100	0.1069		mg/Kg		107	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Lab Sample ID: MB 880-113664/1-A

Matrix: Solid

Analysis Batch: 113693

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113664

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/07/25 07:54	07/07/25 09:22	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-113664/1-A

Matrix: Solid

Analysis Batch: 113693

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 113664

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/07/25 07:54	07/07/25 09:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/25 07:54	07/07/25 09:22	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130				07/07/25 07:54	07/07/25 09:22	1
o-Terphenyl	102		70 - 130				07/07/25 07:54	07/07/25 09:22	1

Lab Sample ID: LCS 880-113664/2-A

Matrix: Solid

Analysis Batch: 113693

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 113664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1248		mg/Kg		125	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1097		mg/Kg		110	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	78		70 - 130				
o-Terphenyl	77		70 - 130				

Lab Sample ID: LCSD 880-113664/3-A

Matrix: Solid

Analysis Batch: 113693

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 113664

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1234		mg/Kg		123	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	1048		mg/Kg		105	70 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	78		70 - 130						
o-Terphenyl	76		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-113667/1-A

Matrix: Solid

Analysis Batch: 113676

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/07/25 09:47	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-113667/2-A				Client Sample ID: Lab Control Sample						
Matrix: Solid				Prep Type: Soluble						
Analysis Batch: 113676										
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride			250	259.3		mg/Kg		104	90 - 110	

Lab Sample ID: LCSD 880-113667/3-A				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid				Prep Type: Soluble						
Analysis Batch: 113676										
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Chloride			250	259.9		mg/Kg		104	90 - 110	0 20

Lab Sample ID: 890-8372-1 MS				Client Sample ID: CS - 1						
Matrix: Solid				Prep Type: Soluble						
Analysis Batch: 113676										
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Chloride	96.7	F1	248	401.1	F1	mg/Kg		123	90 - 110	

Lab Sample ID: 890-8372-1 MSD				Client Sample ID: CS - 1						
Matrix: Solid				Prep Type: Soluble						
Analysis Batch: 113676										
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Chloride	96.7	F1	248	399.4	F1	mg/Kg		122	90 - 110	0 20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 113655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-2	CS - 2	Total/NA	Solid	8021B	113658
890-8372-3	CS - 3	Total/NA	Solid	8021B	113658
MB 880-113658/5-A	Method Blank	Total/NA	Solid	8021B	113658
LCS 880-113658/1-A	Lab Control Sample	Total/NA	Solid	8021B	113658
LCSD 880-113658/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	113658

Prep Batch: 113658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-2	CS - 2	Total/NA	Solid	5035	
890-8372-3	CS - 3	Total/NA	Solid	5035	
MB 880-113658/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-113658/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-113658/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 113674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-1	CS - 1	Total/NA	Solid	8021B	113677
890-8372-4	SW - 1	Total/NA	Solid	8021B	113677
890-8372-5	SW - 2	Total/NA	Solid	8021B	113677
890-8372-6	SW - 3	Total/NA	Solid	8021B	113677
MB 880-113677/5-A	Method Blank	Total/NA	Solid	8021B	113677
LCS 880-113677/1-A	Lab Control Sample	Total/NA	Solid	8021B	113677
LCSD 880-113677/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	113677

Prep Batch: 113677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-1	CS - 1	Total/NA	Solid	5035	
890-8372-4	SW - 1	Total/NA	Solid	5035	
890-8372-5	SW - 2	Total/NA	Solid	5035	
890-8372-6	SW - 3	Total/NA	Solid	5035	
MB 880-113677/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-113677/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-113677/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 113718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-1	CS - 1	Total/NA	Solid	Total BTEX	
890-8372-2	CS - 2	Total/NA	Solid	Total BTEX	
890-8372-3	CS - 3	Total/NA	Solid	Total BTEX	
890-8372-4	SW - 1	Total/NA	Solid	Total BTEX	
890-8372-5	SW - 2	Total/NA	Solid	Total BTEX	
890-8372-6	SW - 3	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 113664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-1	CS - 1	Total/NA	Solid	8015NM Prep	
890-8372-2	CS - 2	Total/NA	Solid	8015NM Prep	
890-8372-3	CS - 3	Total/NA	Solid	8015NM Prep	
890-8372-4	SW - 1	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

GC Semi VOA (Continued)

Prep Batch: 113664 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-5	SW - 2	Total/NA	Solid	8015NM Prep	
890-8372-6	SW - 3	Total/NA	Solid	8015NM Prep	
MB 880-113664/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-113664/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-113664/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 113693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-1	CS - 1	Total/NA	Solid	8015B NM	113664
890-8372-2	CS - 2	Total/NA	Solid	8015B NM	113664
890-8372-3	CS - 3	Total/NA	Solid	8015B NM	113664
890-8372-4	SW - 1	Total/NA	Solid	8015B NM	113664
890-8372-5	SW - 2	Total/NA	Solid	8015B NM	113664
890-8372-6	SW - 3	Total/NA	Solid	8015B NM	113664
MB 880-113664/1-A	Method Blank	Total/NA	Solid	8015B NM	113664
LCS 880-113664/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	113664
LCSD 880-113664/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	113664

Analysis Batch: 113725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-1	CS - 1	Total/NA	Solid	8015 NM	
890-8372-2	CS - 2	Total/NA	Solid	8015 NM	
890-8372-3	CS - 3	Total/NA	Solid	8015 NM	
890-8372-4	SW - 1	Total/NA	Solid	8015 NM	
890-8372-5	SW - 2	Total/NA	Solid	8015 NM	
890-8372-6	SW - 3	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 113667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-1	CS - 1	Soluble	Solid	DI Leach	
890-8372-2	CS - 2	Soluble	Solid	DI Leach	
890-8372-3	CS - 3	Soluble	Solid	DI Leach	
890-8372-4	SW - 1	Soluble	Solid	DI Leach	
890-8372-5	SW - 2	Soluble	Solid	DI Leach	
890-8372-6	SW - 3	Soluble	Solid	DI Leach	
MB 880-113667/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-113667/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-113667/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-8372-1 MS	CS - 1	Soluble	Solid	DI Leach	
890-8372-1 MSD	CS - 1	Soluble	Solid	DI Leach	

Analysis Batch: 113676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8372-1	CS - 1	Soluble	Solid	300.0	113667
890-8372-2	CS - 2	Soluble	Solid	300.0	113667
890-8372-3	CS - 3	Soluble	Solid	300.0	113667
890-8372-4	SW - 1	Soluble	Solid	300.0	113667
890-8372-5	SW - 2	Soluble	Solid	300.0	113667
890-8372-6	SW - 3	Soluble	Solid	300.0	113667

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

HPLC/IC (Continued)

Analysis Batch: 113676 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-113667/1-A	Method Blank	Soluble	Solid	300.0	113667
LCS 880-113667/2-A	Lab Control Sample	Soluble	Solid	300.0	113667
LCSD 880-113667/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	113667
890-8372-1 MS	CS - 1	Soluble	Solid	300.0	113667
890-8372-1 MSD	CS - 1	Soluble	Solid	300.0	113667

Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Client Sample ID: CS - 1

Lab Sample ID: 890-8372-1

Date Collected: 07/03/25 08:00

Matrix: Solid

Date Received: 07/03/25 13:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	113677	07/07/25 09:39	MNR	EET MID
Total/NA	Analysis	8021B		25	5 mL	5 mL	113674	07/07/25 12:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113718	07/07/25 12:40	SA	EET MID
Total/NA	Analysis	8015 NM		1			113725	07/07/25 12:38	SA	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	113664	07/07/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113693	07/07/25 12:38	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	113667	07/07/25 08:05	SA	EET MID
Soluble	Analysis	300.0		1			113676	07/07/25 10:04	SMC	EET MID

Client Sample ID: CS - 2

Lab Sample ID: 890-8372-2

Date Collected: 07/03/25 08:05

Matrix: Solid

Date Received: 07/03/25 13:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	113658	07/05/25 17:24	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	113655	07/06/25 03:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113718	07/06/25 03:12	SA	EET MID
Total/NA	Analysis	8015 NM		1			113725	07/07/25 12:53	SA	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	113664	07/07/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113693	07/07/25 12:53	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	113667	07/07/25 08:05	SA	EET MID
Soluble	Analysis	300.0		1			113676	07/07/25 10:21	SMC	EET MID

Client Sample ID: CS - 3

Lab Sample ID: 890-8372-3

Date Collected: 07/03/25 08:10

Matrix: Solid

Date Received: 07/03/25 13:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	113658	07/05/25 17:24	MNR	EET MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	113655	07/06/25 03:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113718	07/06/25 03:33	SA	EET MID
Total/NA	Analysis	8015 NM		1			113725	07/07/25 13:08	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	113664	07/07/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113693	07/07/25 13:08	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	113667	07/07/25 08:05	SA	EET MID
Soluble	Analysis	300.0		1			113676	07/07/25 10:26	SMC	EET MID

Client Sample ID: SW - 1

Lab Sample ID: 890-8372-4

Date Collected: 07/03/25 08:15

Matrix: Solid

Date Received: 07/03/25 13:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	113677	07/07/25 09:39	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	113674	07/07/25 16:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113718	07/07/25 16:37	SA	EET MID

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Client Sample ID: SW - 1

Lab Sample ID: 890-8372-4

Date Collected: 07/03/25 08:15

Matrix: Solid

Date Received: 07/03/25 13:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			113725	07/07/25 13:22	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	113664	07/07/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113693	07/07/25 13:22	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	113667	07/07/25 08:05	SA	EET MID
Soluble	Analysis	300.0		1			113676	07/07/25 10:32	SMC	EET MID

Client Sample ID: SW - 2

Lab Sample ID: 890-8372-5

Date Collected: 07/03/25 08:20

Matrix: Solid

Date Received: 07/03/25 13:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	113677	07/07/25 09:39	MNR	EET MID
Total/NA	Analysis	8021B		5	5 mL	5 mL	113674	07/07/25 13:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113718	07/07/25 13:42	SA	EET MID
Total/NA	Analysis	8015 NM		1			113725	07/07/25 13:37	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	113664	07/07/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113693	07/07/25 13:37	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	113667	07/07/25 08:05	SA	EET MID
Soluble	Analysis	300.0		1			113676	07/07/25 10:38	SMC	EET MID

Client Sample ID: SW - 3

Lab Sample ID: 890-8372-6

Date Collected: 07/03/25 08:25

Matrix: Solid

Date Received: 07/03/25 13:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	113677	07/07/25 09:39	MNR	EET MID
Total/NA	Analysis	8021B		5	5 mL	5 mL	113674	07/07/25 14:02	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113718	07/07/25 14:02	SA	EET MID
Total/NA	Analysis	8015 NM		1			113725	07/07/25 13:52	SA	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	113664	07/07/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113693	07/07/25 13:52	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	113667	07/07/25 08:05	SA	EET MID
Soluble	Analysis	300.0		1			113676	07/07/25 10:55	SMC	EET MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8372-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8372-1	CS - 1	Solid	07/03/25 08:00	07/03/25 13:52	6
890-8372-2	CS - 2	Solid	07/03/25 08:05	07/03/25 13:52	6
890-8372-3	CS - 3	Solid	07/03/25 08:10	07/03/25 13:52	6
890-8372-4	SW - 1	Solid	07/03/25 08:15	07/03/25 13:52	0-6
890-8372-5	SW - 2	Solid	07/03/25 08:20	07/03/25 13:52	0-6
890-8372-6	SW - 3	Solid	07/03/25 08:25	07/03/25 13:52	0-6

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
0 <i>Cafritz</i>	<i>Swartz</i>	7/3/35			
3					
5					

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

Chain of Custody Record



eurofins

Environment Testing

Client Information (Sub Contract Lab)		Sampler: N/A	Lab PM: Teel, Brianna	Carrier Tracking No(s): N/A	COC No: 890-5345-1
Client Contact: Shipping/Receiving		Phone: N/A	E-Mail: Brianna.Teel@eurofins.com	State of Origin: New Mexico	Page 1 of 1
Company: Eurofins Environment Testing South Cent		Accreditations Required (See note): NELAP - Texas		Job #: 890-8372-1	
Address: 1211 W. Florida Ave.		Due Date Requested: 7/7/2025	Preservation Codes:		
City: Midland	TAT Requested (days): N/A	Analysis Requested			
State, Zip: TX, 79701	PO #: N/A				
Phone: 432-704-5440(Tel)	WO #: N/A				
Email: N/A	Project #: 88002337				
Project Name: MULVA	SSOW#: N/A				
Site: N/A					

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Organic, A=Asphalt, B=Bitumen, A=Asphalt)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_PrepTPH 8015	8015MOD_Calc8015 Calc	300_ORGFM_28D/DI_LEACHChloride	8021B/5035FP_Calc(MOD) BTEX	Total_BTEX_GCV(MOD) Total BTEX	Total Number of containers	Special Instructions/Note:
CS - 1 (890-8372-1)	7/3/25	08:00	G	Solid			X	X	X	X	X	1	
CS - 2 (890-8372-2)	7/3/25	08:05	G	Solid			X	X	X	X	X	1	
CS - 3 (890-8372-3)	7/3/25	08:10	G	Solid			X	X	X	X	X	1	
SW - 1 (890-8372-4)	7/3/25	08:15	G	Solid			X	X	X	X	X	1	
SW - 2 (890-8372-5)	7/3/25	08:20	G	Solid			X	X	X	X	X	1	
SW - 3 (890-8372-6)	7/3/25	08:25	G	Solid			X	X	X	X	X	1	

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

Possible Hazard Identification

Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2

Special Instructions/QC Requirements: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Relinquished by: _____ Date/Time: 7/3 1630 Company: _____ Received by: _____ Date/Time: 7/15 08:00 Company: _____

Relinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: ☒ Yes ☐ No Custody Seal No.: _____ Cooling Temperature(s) °C and Other Remarks: IR-8 (-0.1)

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8372-1

SDG Number: Lea County, NM

Login Number: 8372

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8372-1

SDG Number: Lea County, NM

Login Number: 8372

List Number: 2

Creator: Rios, Minerva

List Source: Eurofins Midland

List Creation: 07/05/25 05:16 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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- 2
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- 13
- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 7/18/2025 6:48:32 PM

JOB DESCRIPTION

MULVA
210

JOB NUMBER

890-8466-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



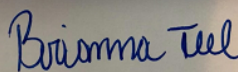
Eurofins Carlsbad

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



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7/18/2025 6:48:32 PM

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

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Laboratory Job ID: 890-8466-1
SDG: 210

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

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

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: MULVA

Job ID: 890-8466-1

Job ID: 890-8466-1

Eurofins Carlsbad

Job Narrative 890-8466-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 7/17/2025 4:14 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW - 4 (890-8466-1).

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

Client Sample ID: SW - 4

Lab Sample ID: 890-8466-1

Date Collected: 07/17/25 09:30

Matrix: Solid

Date Received: 07/17/25 16:14

Sample Depth: 0-4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:39	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/18/25 08:13	07/18/25 11:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:39	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/18/25 08:13	07/18/25 11:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	07/18/25 08:13	07/18/25 11:39	1
1,4-Difluorobenzene (Surr)	90		70 - 130	07/18/25 08:13	07/18/25 11:39	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/18/25 11:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			07/18/25 09:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/18/25 08:49	07/18/25 09:42	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/18/25 08:49	07/18/25 09:42	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/18/25 08:49	07/18/25 09:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	07/18/25 08:49	07/18/25 09:42	1
o-Terphenyl	85		70 - 130	07/18/25 08:49	07/18/25 09:42	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	118		10.1		mg/Kg			07/18/25 10:25	1

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Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8466-1	SW - 4	113	90
890-8466-1 MS	SW - 4	99	98
890-8466-1 MSD	SW - 4	103	99
LCS 880-114431/1-A	Lab Control Sample	95	106
LCSD 880-114431/2-A	Lab Control Sample Dup	97	101
MB 880-114431/5-A	Method Blank	104	88
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8466-1	SW - 4	86	85
LCS 880-114333/2-A	Lab Control Sample	128	109
LCSD 880-114333/3-A	Lab Control Sample Dup	104	109
MB 880-114333/1-A	Method Blank	126	122
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-114431/5-A

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114431

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/18/25 08:13	07/18/25 11:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	07/18/25 08:13	07/18/25 11:17	1
1,4-Difluorobenzene (Surr)	88		70 - 130	07/18/25 08:13	07/18/25 11:17	1

Lab Sample ID: LCS 880-114431/1-A

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114431

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09026		mg/Kg		90	70 - 130
Toluene	0.100	0.08400		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.09493		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1883		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09396		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-114431/2-A

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114431

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09697		mg/Kg		97	70 - 130	7	35
Toluene	0.100	0.09229		mg/Kg		92	70 - 130	9	35
Ethylbenzene	0.100	0.1046		mg/Kg		105	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2081		mg/Kg		104	70 - 130	10	35
o-Xylene	0.100	0.1025		mg/Kg		102	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 890-8466-1 MS

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: SW - 4

Prep Type: Total/NA

Prep Batch: 114431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.09499		mg/Kg		95	70 - 130
Toluene	<0.00200	U	0.100	0.08953		mg/Kg		90	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

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

Lab Sample ID: 890-8466-1 MS

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: SW - 4

Prep Type: Total/NA

Prep Batch: 114431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.09731		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1907		mg/Kg		95	70 - 130
o-Xylene	<0.00200	U	0.100	0.09410		mg/Kg		94	70 - 130
Surrogate	%Recovery	MS Qualifier	MS Limits						
4-Bromofluorobenzene (Surr)	99		70 - 130						
1,4-Difluorobenzene (Surr)	98		70 - 130						

Lab Sample ID: 890-8466-1 MSD

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: SW - 4

Prep Type: Total/NA

Prep Batch: 114431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09366		mg/Kg		94	70 - 130	1	35
Toluene	<0.00200	U	0.100	0.08801		mg/Kg		88	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.100	0.09609		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1891		mg/Kg		95	70 - 130	1	35
o-Xylene	<0.00200	U	0.100	0.09320		mg/Kg		93	70 - 130	1	35
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	103		70 - 130								
1,4-Difluorobenzene (Surr)	99		70 - 130								

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

Lab Sample ID: MB 880-114333/1-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114333

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/17/25 10:49	07/18/25 01:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/17/25 10:49	07/18/25 01:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/17/25 10:49	07/18/25 01:33	1
Surrogate	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130				07/17/25 10:49	07/18/25 01:33	1
o-Terphenyl	122		70 - 130				07/17/25 10:49	07/18/25 01:33	1

Lab Sample ID: LCS 880-114333/2-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114333

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1090		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1006		mg/Kg		101	70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

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

Lab Sample ID: LCS 880-114333/2-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114333

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	128		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: LCSD 880-114333/3-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114333

			Spike	LCSD	LCSD				%Rec		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	1035		mg/Kg		104	70 - 130	5	20	
Diesel Range Organics (Over C10-C28)			1000	1070		mg/Kg		107	70 - 130	6	20	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	109		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-114427/1-A

Matrix: Solid

Analysis Batch: 114439

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<10.0	U	10.0		mg/Kg			07/18/25 08:43	1		

Lab Sample ID: LCS 880-114427/2-A

Matrix: Solid

Analysis Batch: 114439

Client Sample ID: Lab Control Sample

Prep Type: Soluble

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			250	251.1		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-114427/3-A

Matrix: Solid

Analysis Batch: 114439

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

			Spike	LCSD	LCSD				%Rec		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride			250	253.0		mg/Kg		101	90 - 110	1	20	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

GC VOA

Prep Batch: 114431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8466-1	SW - 4	Total/NA	Solid	5035	
MB 880-114431/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-114431/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-114431/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-8466-1 MS	SW - 4	Total/NA	Solid	5035	
890-8466-1 MSD	SW - 4	Total/NA	Solid	5035	

Analysis Batch: 114434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8466-1	SW - 4	Total/NA	Solid	8021B	114431
MB 880-114431/5-A	Method Blank	Total/NA	Solid	8021B	114431
LCS 880-114431/1-A	Lab Control Sample	Total/NA	Solid	8021B	114431
LCSD 880-114431/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	114431
890-8466-1 MS	SW - 4	Total/NA	Solid	8021B	114431
890-8466-1 MSD	SW - 4	Total/NA	Solid	8021B	114431

Analysis Batch: 114510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8466-1	SW - 4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 114333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8466-1	SW - 4	Total/NA	Solid	8015NM Prep	
MB 880-114333/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-114333/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-114333/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 114421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8466-1	SW - 4	Total/NA	Solid	8015B NM	114333
MB 880-114333/1-A	Method Blank	Total/NA	Solid	8015B NM	114333
LCS 880-114333/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	114333
LCSD 880-114333/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	114333

Analysis Batch: 114483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8466-1	SW - 4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 114427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8466-1	SW - 4	Soluble	Solid	DI Leach	
MB 880-114427/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-114427/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-114427/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 114439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8466-1	SW - 4	Soluble	Solid	300.0	114427

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

HPLC/IC (Continued)

Analysis Batch: 114439 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-114427/1-A	Method Blank	Soluble	Solid	300.0	114427
LCS 880-114427/2-A	Lab Control Sample	Soluble	Solid	300.0	114427
LCSD 880-114427/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	114427

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

Client Sample ID: SW - 4
Date Collected: 07/17/25 09:30
Date Received: 07/17/25 16:14

Lab Sample ID: 890-8466-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	114431	07/18/25 08:13	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114434	07/18/25 11:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114510	07/18/25 11:39	SA	EET MID
Total/NA	Analysis	8015 NM		1			114483	07/18/25 09:42	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	114333	07/18/25 08:49	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114421	07/18/25 09:42	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	114427	07/18/25 08:04	SA	EET MID
Soluble	Analysis	300.0		1			114439	07/18/25 10:25	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8466-1
SDG: 210

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8466-1	SW - 4	Solid	07/17/25 09:30	07/17/25 16:14	0-4

- 1
- 2
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Environment Testing

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
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) 986-3199

Chain of Custody

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gimoreno@earthsys.net

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	



[illegible]

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and requisition of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions to service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$65.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/17/16			

Revised Date: 08/25/2020 Rev: 2020

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8466-1

SDG Number: 210

Login Number: 8466

List Source: Eurofins Carlsbad

List Number: 1

Creator: Bruns, Shannon

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: Earth Systems Response and Restoration

Job Number: 890-8466-1

SDG Number: 210

Login Number: 8466

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 07/18/25 08:05 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 7/18/2025 6:48:32 PM

JOB DESCRIPTION

MULVA
210

JOB NUMBER

890-8467-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



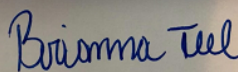
Eurofins Carlsbad

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



Generated
7/18/2025 6:48:32 PM

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

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Laboratory Job ID: 890-8467-1
SDG: 210

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Receipt Checklists	17

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

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: MULVA

Job ID: 890-8467-1

Job ID: 890-8467-1

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Job Narrative 890-8467-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 7/17/2025 4:18 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.2°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW - 5 (890-8467-1).

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

Client Sample ID: SW - 5

Lab Sample ID: 890-8467-1

Date Collected: 07/17/25 09:35

Matrix: Solid

Date Received: 07/17/25 16:18

Sample Depth: 0-4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/18/25 08:13	07/18/25 11:59	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/18/25 08:13	07/18/25 11:59	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/18/25 08:13	07/18/25 11:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/18/25 08:13	07/18/25 11:59	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/18/25 08:13	07/18/25 11:59	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/18/25 08:13	07/18/25 11:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	07/18/25 08:13	07/18/25 11:59	1
1,4-Difluorobenzene (Surr)	102		70 - 130	07/18/25 08:13	07/18/25 11:59	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/18/25 11:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			07/18/25 09:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/18/25 08:49	07/18/25 09:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/18/25 08:49	07/18/25 09:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/18/25 08:49	07/18/25 09:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	07/18/25 08:49	07/18/25 09:58	1
o-Terphenyl	83		70 - 130	07/18/25 08:49	07/18/25 09:58	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	136		10.1		mg/Kg			07/18/25 10:31	1

Eurofins Carlsbad

Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8467-1	SW - 5	92	102
LCS 880-114431/1-A	Lab Control Sample	95	106
LCSD 880-114431/2-A	Lab Control Sample Dup	97	101
MB 880-114431/5-A	Method Blank	104	88
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8467-1	SW - 5	87	83
LCS 880-114333/2-A	Lab Control Sample	128	109
LCSD 880-114333/3-A	Lab Control Sample Dup	104	109
MB 880-114333/1-A	Method Blank	126	122
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-114431/5-A

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114431

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/18/25 08:13	07/18/25 11:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	07/18/25 08:13	07/18/25 11:17	1
1,4-Difluorobenzene (Surr)	88		70 - 130	07/18/25 08:13	07/18/25 11:17	1

Lab Sample ID: LCS 880-114431/1-A

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114431

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09026		mg/Kg		90	70 - 130
Toluene	0.100	0.08400		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.09493		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1883		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09396		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-114431/2-A

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114431

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09697		mg/Kg		97	70 - 130	7	35
Toluene	0.100	0.09229		mg/Kg		92	70 - 130	9	35
Ethylbenzene	0.100	0.1046		mg/Kg		105	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2081		mg/Kg		104	70 - 130	10	35
o-Xylene	0.100	0.1025		mg/Kg		102	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

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

Lab Sample ID: MB 880-114333/1-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114333

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/17/25 10:49	07/18/25 01:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/17/25 10:49	07/18/25 01:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/17/25 10:49	07/18/25 01:33	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130				07/17/25 10:49	07/18/25 01:33	1
o-Terphenyl	122		70 - 130				07/17/25 10:49	07/18/25 01:33	1

Lab Sample ID: LCS 880-114333/2-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114333

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1090		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1006		mg/Kg		101	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	128		70 - 130				
o-Terphenyl	109		70 - 130				

Lab Sample ID: LCSD 880-114333/3-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114333

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1035		mg/Kg		104	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	1070		mg/Kg		107	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	104		70 - 130						
o-Terphenyl	109		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-114427/1-A

Matrix: Solid

Analysis Batch: 114439

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/18/25 08:43	1

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

GC VOA

Prep Batch: 114431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8467-1	SW - 5	Total/NA	Solid	5035	
MB 880-114431/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-114431/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-114431/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 114434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8467-1	SW - 5	Total/NA	Solid	8021B	114431
MB 880-114431/5-A	Method Blank	Total/NA	Solid	8021B	114431
LCS 880-114431/1-A	Lab Control Sample	Total/NA	Solid	8021B	114431
LCSD 880-114431/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	114431

Analysis Batch: 114511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8467-1	SW - 5	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 114333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8467-1	SW - 5	Total/NA	Solid	8015NM Prep	
MB 880-114333/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-114333/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-114333/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 114421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8467-1	SW - 5	Total/NA	Solid	8015B NM	114333
MB 880-114333/1-A	Method Blank	Total/NA	Solid	8015B NM	114333
LCS 880-114333/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	114333
LCSD 880-114333/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	114333

Analysis Batch: 114484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8467-1	SW - 5	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 114427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8467-1	SW - 5	Soluble	Solid	DI Leach	
MB 880-114427/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-114427/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-114427/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 114439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8467-1	SW - 5	Soluble	Solid	300.0	114427
MB 880-114427/1-A	Method Blank	Soluble	Solid	300.0	114427
LCS 880-114427/2-A	Lab Control Sample	Soluble	Solid	300.0	114427
LCSD 880-114427/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	114427

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

Client Sample ID: SW - 5

Lab Sample ID: 890-8467-1

Date Collected: 07/17/25 09:35

Matrix: Solid

Date Received: 07/17/25 16:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	114431	07/18/25 08:13	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114434	07/18/25 11:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114511	07/18/25 11:59	SA	EET MID
Total/NA	Analysis	8015 NM		1			114484	07/18/25 09:58	SA	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	114333	07/18/25 08:49	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114421	07/18/25 09:58	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	114427	07/18/25 08:04	SA	EET MID
Soluble	Analysis	300.0		1			114439	07/18/25 10:31	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8467-1
SDG: 210

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8467-1	SW - 5	Solid	07/17/25 09:35	07/17/25 16:18	0-4

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



Environment Testing

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) 986-3199

Chain of Custody

Work Order No:

www.xenco.com Page 1 of 1



Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-641-7719	Email:	gimoreno@earthsys.net

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting: Level II	<input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADAPT <input type="checkbox"/> Other: <input type="checkbox"/>

[illegible]

Total	200.7 / 6010	200.8 / 6020:		8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Tl	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed																																		Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$35.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/17/16			

Enforced Date: 08/25/2020 Row: 2020

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8467-1

SDG Number: 210

Login Number: 8467

List Source: Eurofins Carlsbad

List Number: 1

Creator: Bruns, Shannon

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: Earth Systems Response and Restoration

Job Number: 890-8467-1

SDG Number: 210

Login Number: 8467

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 07/18/25 08:05 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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- 2
- 3
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- 10
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- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 7/18/2025 6:48:55 PM

JOB DESCRIPTION

MULVA
210

JOB NUMBER

890-8468-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

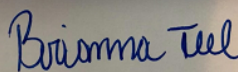
Eurofins Carlsbad

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



Generated
7/18/2025 6:48:55 PM

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

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Laboratory Job ID: 890-8468-1
SDG: 210

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Receipt Checklists	17

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

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: MULVA

Job ID: 890-8468-1

Job ID: 890-8468-1

Eurofins Carlsbad

Job Narrative 890-8468-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 7/17/2025 4:18 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.2°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: CS - 4 (890-8468-1).

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

Client Sample ID: CS - 4

Lab Sample ID: 890-8468-1

Date Collected: 07/17/25 09:40

Matrix: Solid

Date Received: 07/17/25 16:18

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/18/25 08:13	07/18/25 12:20	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/18/25 08:13	07/18/25 12:20	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/18/25 08:13	07/18/25 12:20	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		07/18/25 08:13	07/18/25 12:20	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/18/25 08:13	07/18/25 12:20	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/18/25 08:13	07/18/25 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	07/18/25 08:13	07/18/25 12:20	1
1,4-Difluorobenzene (Surr)	102		70 - 130	07/18/25 08:13	07/18/25 12:20	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			07/18/25 12:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/18/25 10:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/18/25 08:49	07/18/25 10:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/18/25 08:49	07/18/25 10:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/18/25 08:49	07/18/25 10:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	07/18/25 08:49	07/18/25 10:14	1
o-Terphenyl	88		70 - 130	07/18/25 08:49	07/18/25 10:14	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	98.0		10.0		mg/Kg			07/18/25 10:36	1

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Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
890-8468-1	CS - 4	100	102				
LCS 880-114431/1-A	Lab Control Sample	95	106				
LCSD 880-114431/2-A	Lab Control Sample Dup	97	101				
MB 880-114431/5-A	Method Blank	104	88				
Surrogate Legend							
BFB = 4-Bromofluorobenzene (Surr)							
DFBZ = 1,4-Difluorobenzene (Surr)							

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	1CO1	OTPH1				
		(70-130)	(70-130)				
890-8468-1	CS - 4	91	88				
LCS 880-114333/2-A	Lab Control Sample	128	109				
LCSD 880-114333/3-A	Lab Control Sample Dup	104	109				
MB 880-114333/1-A	Method Blank	126	122				
Surrogate Legend							
1CO = 1-Chlorooctane							
OTPH = o-Terphenyl							

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-114431/5-A

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114431

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/18/25 08:13	07/18/25 11:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/18/25 08:13	07/18/25 11:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	07/18/25 08:13	07/18/25 11:17	1
1,4-Difluorobenzene (Surr)	88		70 - 130	07/18/25 08:13	07/18/25 11:17	1

Lab Sample ID: LCS 880-114431/1-A

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114431

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09026		mg/Kg		90	70 - 130
Toluene	0.100	0.08400		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.09493		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1883		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09396		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-114431/2-A

Matrix: Solid

Analysis Batch: 114434

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114431

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09697		mg/Kg		97	70 - 130	7	35
Toluene	0.100	0.09229		mg/Kg		92	70 - 130	9	35
Ethylbenzene	0.100	0.1046		mg/Kg		105	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2081		mg/Kg		104	70 - 130	10	35
o-Xylene	0.100	0.1025		mg/Kg		102	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

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

Lab Sample ID: MB 880-114333/1-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114333

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/17/25 10:49	07/18/25 01:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/17/25 10:49	07/18/25 01:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/17/25 10:49	07/18/25 01:33	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130				07/17/25 10:49	07/18/25 01:33	1
o-Terphenyl	122		70 - 130				07/17/25 10:49	07/18/25 01:33	1

Lab Sample ID: LCS 880-114333/2-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114333

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1090		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1006		mg/Kg		101	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	128		70 - 130				
o-Terphenyl	109		70 - 130				

Lab Sample ID: LCSD 880-114333/3-A

Matrix: Solid

Analysis Batch: 114421

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114333

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1035		mg/Kg		104	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	1070		mg/Kg		107	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	104		70 - 130						
o-Terphenyl	109		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-114427/1-A

Matrix: Solid

Analysis Batch: 114439

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/18/25 08:43	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-114427/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 114439									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	251.1		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-114427/3-A					Client Sample ID: Lab Control Sample Dup				
Matrix: Solid					Prep Type: Soluble				
Analysis Batch: 114439									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	253.0		mg/Kg		101	90 - 110	1	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

GC VOA

Prep Batch: 114431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8468-1	CS - 4	Total/NA	Solid	5035	
MB 880-114431/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-114431/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-114431/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 114434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8468-1	CS - 4	Total/NA	Solid	8021B	114431
MB 880-114431/5-A	Method Blank	Total/NA	Solid	8021B	114431
LCS 880-114431/1-A	Lab Control Sample	Total/NA	Solid	8021B	114431
LCSD 880-114431/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	114431

Analysis Batch: 114512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8468-1	CS - 4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 114333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8468-1	CS - 4	Total/NA	Solid	8015NM Prep	
MB 880-114333/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-114333/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-114333/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 114421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8468-1	CS - 4	Total/NA	Solid	8015B NM	114333
MB 880-114333/1-A	Method Blank	Total/NA	Solid	8015B NM	114333
LCS 880-114333/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	114333
LCSD 880-114333/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	114333

Analysis Batch: 114485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8468-1	CS - 4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 114427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8468-1	CS - 4	Soluble	Solid	DI Leach	
MB 880-114427/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-114427/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-114427/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 114439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8468-1	CS - 4	Soluble	Solid	300.0	114427
MB 880-114427/1-A	Method Blank	Soluble	Solid	300.0	114427
LCS 880-114427/2-A	Lab Control Sample	Soluble	Solid	300.0	114427
LCSD 880-114427/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	114427

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

Client Sample ID: CS - 4
Date Collected: 07/17/25 09:40
Date Received: 07/17/25 16:18

Lab Sample ID: 890-8468-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	114431	07/18/25 08:13	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114434	07/18/25 12:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114512	07/18/25 12:20	SA	EET MID
Total/NA	Analysis	8015 NM		1			114485	07/18/25 10:14	SA	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	114333	07/18/25 08:49	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114421	07/18/25 10:14	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	114427	07/18/25 08:04	SA	EET MID
Soluble	Analysis	300.0		1			114439	07/18/25 10:36	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: MULVA

Job ID: 890-8468-1
SDG: 210

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8468-1	CS - 4	Solid	07/17/25 09:40	07/17/25 16:18	4

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



Environment Testing
Xenco

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

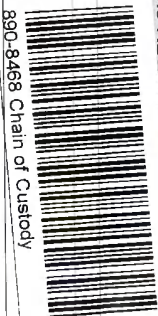
Chain of Custody

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gmoreno@earthsys.net

Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____



890-8468 Chain of Custody

ANALYSIS REQUEST

Preservative Codes

one: NO DI Water: H₂O
ool: Cool MeOH: Me
CL: HC HNO₃: HN
SO₄: H₂ NaOH: Na
PO₄: HP
NaHSO₄: NABIS
Na₂S₂O₃: NaSO₃
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Project Name:		Mulva		Turn Around			ANALYSIS REQUEST																Preservative Codes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Project Location:		Lea County, NM		Due Date:		Rush TAT																		ool: Cool MeOH: Me																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Sampler's Name:		Santiago Giron		TAT starts the day received by the lab, if received by 4:30pm																				CL: HC HNO ₃ : HN																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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SAMPLE RECEIPT		Temp Blank:		Yes No		Wet/tee:		Yes No																		PO ₄ : HP																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Samples Received In tact:		Yes No		Thermometer ID:																						NaHSO ₄ : NABIS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Cooler Custody Seals:		Yes No		Correction Factor:																						Na ₂ S ₂ O ₃ : NaSO ₃																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Sample Custody Seals:		Yes No		Temperature Reading:																						Zn Acetate+NaOH: Zn																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Total Containers:				Corrected Temperature:																						NaOH+Ascorbic Acid: SAPC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Sample Identification		Matrix		Date Sampled		Time Sampled		Depth (feet)		Grab/Comp		# of Cont																		Sample Comments																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
CS-4		S		7.17.25		9:40		4		Comp		1		X		TPH -NM		X		Chloride-NM		X		BTEX-NM		X		Hold		24 Hr Rush																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8468-1

SDG Number: 210

Login Number: 8468

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8468-1

SDG Number: 210

Login Number: 8468

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 07/18/25 08:05 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 7/23/2025 3:38:52 PM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-8495-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

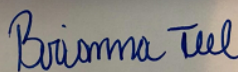
Eurofins Carlsbad

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



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7/23/2025 3:38:52 PM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-8495-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	13
Lab Chronicle	15
Certification Summary	16
Method Summary	17
Sample Summary	18
Chain of Custody	19
Receipt Checklists	20

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-8495-1

Job ID: 890-8495-1**Eurofins Carlsbad****Job Narrative
890-8495-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 7/22/2025 2:05 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 2.8°C.

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: CS-8 (890-8495-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Diesel Range Organics

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-114776 and analytical batch 880-114802 was outside the upper control limits.

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

Client Sample ID: CS-7

Lab Sample ID: 890-8495-1

Date Collected: 07/22/25 11:25

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/23/25 08:41	07/23/25 11:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/23/25 08:41	07/23/25 11:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	07/23/25 08:41	07/23/25 11:53	1
1,4-Difluorobenzene (Surr)	88		70 - 130	07/23/25 08:41	07/23/25 11:53	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/23/25 11:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/23/25 11:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 11:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 11:24	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 11:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130	07/23/25 07:47	07/23/25 11:24	1
o-Terphenyl	76		70 - 130	07/23/25 07:47	07/23/25 11:24	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/23/25 12:08	1

Client Sample ID: CS-8

Lab Sample ID: 890-8495-2

Date Collected: 07/22/25 11:30

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00286		0.00201		mg/Kg		07/23/25 08:41	07/23/25 12:13	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/23/25 08:41	07/23/25 12:13	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/23/25 08:41	07/23/25 12:13	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/23/25 08:41	07/23/25 12:13	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/23/25 08:41	07/23/25 12:13	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/23/25 08:41	07/23/25 12:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	55	S1-	70 - 130	07/23/25 08:41	07/23/25 12:13	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

Client Sample ID: CS-8

Lab Sample ID: 890-8495-2

Date Collected: 07/22/25 11:30

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	115		70 - 130	07/23/25 08:41	07/23/25 12:13	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/23/25 12:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/23/25 12:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 12:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 12:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 12:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130				07/23/25 07:47	07/23/25 12:14	1
o-Terphenyl	79		70 - 130				07/23/25 07:47	07/23/25 12:14	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.1	U	10.1		mg/Kg			07/23/25 12:15	1

Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8495-1	CS-7	113	88
890-8495-1 MS	CS-7	105	100
890-8495-1 MSD	CS-7	97	98
890-8495-2	CS-8	55 S1-	115
LCS 880-114786/1-A	Lab Control Sample	105	100
LCSD 880-114786/2-A	Lab Control Sample Dup	105	104
MB 880-114786/5-A	Method Blank	108	89
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8495-1	CS-7	77	76
890-8495-1 MS	CS-7	90	78
890-8495-1 MSD	CS-7	91	78
890-8495-2	CS-8	82	79
LCS 880-114776/2-A	Lab Control Sample	92	100
LCSD 880-114776/3-A	Lab Control Sample Dup	108	97
MB 880-114776/1-A	Method Blank	137 S1+	136 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-114786/5-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/23/25 08:41	07/23/25 11:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	07/23/25 08:41	07/23/25 11:31	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/23/25 08:41	07/23/25 11:31	1

Lab Sample ID: LCS 880-114786/1-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08684		mg/Kg		87	70 - 130
Toluene	0.100	0.08407		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.09456		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1879		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09317		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-114786/2-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09520		mg/Kg		95	70 - 130	9	35
Toluene	0.100	0.08802		mg/Kg		88	70 - 130	5	35
Ethylbenzene	0.100	0.09836		mg/Kg		98	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1946		mg/Kg		97	70 - 130	3	35
o-Xylene	0.100	0.09686		mg/Kg		97	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 890-8495-1 MS

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: CS-7

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.09440		mg/Kg		94	70 - 130
Toluene	<0.00200	U	0.100	0.08619		mg/Kg		86	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

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

Lab Sample ID: 890-8495-1 MS

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: CS-7

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.09594		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1892		mg/Kg		95	70 - 130
o-Xylene	<0.00200	U	0.100	0.09296		mg/Kg		93	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 890-8495-1 MSD

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: CS-7

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09198		mg/Kg		92	70 - 130	3	35
Toluene	<0.00200	U	0.100	0.08252		mg/Kg		83	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.100	0.08901		mg/Kg		89	70 - 130	7	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1716		mg/Kg		86	70 - 130	10	35
o-Xylene	<0.00200	U	0.100	0.08436		mg/Kg		84	70 - 130	10	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-114776/1-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130	07/23/25 07:47	07/23/25 08:29	1
o-Terphenyl	136	S1+	70 - 130	07/23/25 07:47	07/23/25 08:29	1

Lab Sample ID: LCS 880-114776/2-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1059		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1068		mg/Kg		107	70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

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

Lab Sample ID: LCS 880-114776/2-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114776

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: LCSD 880-114776/3-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114776

			Spike	LCSD	LCSD				%Rec		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	991.2		mg/Kg		99	70 - 130	7	20	
Diesel Range Organics (Over C10-C28)			1000	936.6		mg/Kg		94	70 - 130	13	20	
	LCSD	LCSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	108		70 - 130									
o-Terphenyl	97		70 - 130									

Lab Sample ID: 890-8495-1 MS

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: CS-7

Prep Type: Total/NA

Prep Batch: 114776

	Sample	Sample	Spike	MS	MS				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	879.3		mg/Kg		88	70 - 130			
Diesel Range Organics (Over C10-C28)	<50.0	U	997	835.9		mg/Kg		84	70 - 130			
	MS	MS										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	90		70 - 130									
o-Terphenyl	78		70 - 130									

Lab Sample ID: 890-8495-1 MSD

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: CS-7

Prep Type: Total/NA

Prep Batch: 114776

	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	<50.0	U	997	915.3		mg/Kg		92	70 - 130	4	20	
Diesel Range Organics (Over C10-C28)	<50.0	U	997	868.5		mg/Kg		87	70 - 130	4	20	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	91		70 - 130									
o-Terphenyl	78		70 - 130									

Eurofins Carlsbad

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-114762/1-A										Client Sample ID: Method Blank	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 114796											
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<10.0	U	10.0		mg/Kg			07/23/25 10:13	1		

Lab Sample ID: LCS 880-114762/2-A										Client Sample ID: Lab Control Sample	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 114796											
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits			
Chloride		250	225.8		mg/Kg		90	90 - 110			

Lab Sample ID: LCSD 880-114762/3-A										Client Sample ID: Lab Control Sample Dup	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 114796											
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride		250	229.4		mg/Kg		92	90 - 110	2	20	

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 114784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8495-1	CS-7	Total/NA	Solid	8021B	114786
890-8495-2	CS-8	Total/NA	Solid	8021B	114786
MB 880-114786/5-A	Method Blank	Total/NA	Solid	8021B	114786
LCS 880-114786/1-A	Lab Control Sample	Total/NA	Solid	8021B	114786
LCSD 880-114786/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	114786
890-8495-1 MS	CS-7	Total/NA	Solid	8021B	114786
890-8495-1 MSD	CS-7	Total/NA	Solid	8021B	114786

Prep Batch: 114786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8495-1	CS-7	Total/NA	Solid	5035	
890-8495-2	CS-8	Total/NA	Solid	5035	
MB 880-114786/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-114786/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-114786/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-8495-1 MS	CS-7	Total/NA	Solid	5035	
890-8495-1 MSD	CS-7	Total/NA	Solid	5035	

Analysis Batch: 114830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8495-1	CS-7	Total/NA	Solid	Total BTEX	
890-8495-2	CS-8	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 114776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8495-1	CS-7	Total/NA	Solid	8015NM Prep	
890-8495-2	CS-8	Total/NA	Solid	8015NM Prep	
MB 880-114776/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-114776/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-114776/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-8495-1 MS	CS-7	Total/NA	Solid	8015NM Prep	
890-8495-1 MSD	CS-7	Total/NA	Solid	8015NM Prep	

Analysis Batch: 114802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8495-1	CS-7	Total/NA	Solid	8015B NM	114776
890-8495-2	CS-8	Total/NA	Solid	8015B NM	114776
MB 880-114776/1-A	Method Blank	Total/NA	Solid	8015B NM	114776
LCS 880-114776/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	114776
LCSD 880-114776/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	114776
890-8495-1 MS	CS-7	Total/NA	Solid	8015B NM	114776
890-8495-1 MSD	CS-7	Total/NA	Solid	8015B NM	114776

Analysis Batch: 114853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8495-1	CS-7	Total/NA	Solid	8015 NM	
890-8495-2	CS-8	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

HPLC/IC

Leach Batch: 114762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8495-1	CS-7	Soluble	Solid	DI Leach	
890-8495-2	CS-8	Soluble	Solid	DI Leach	
MB 880-114762/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-114762/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-114762/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 114796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8495-1	CS-7	Soluble	Solid	300.0	114762
890-8495-2	CS-8	Soluble	Solid	300.0	114762
MB 880-114762/1-A	Method Blank	Soluble	Solid	300.0	114762
LCS 880-114762/2-A	Lab Control Sample	Soluble	Solid	300.0	114762
LCSD 880-114762/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	114762

Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

Client Sample ID: CS-7
Date Collected: 07/22/25 11:25
Date Received: 07/22/25 14:05

Lab Sample ID: 890-8495-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	114786	07/23/25 08:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114784	07/23/25 11:53	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114830	07/23/25 11:53	SA	EET MID
Total/NA	Analysis	8015 NM		1			114853	07/23/25 11:24	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	114776	07/23/25 07:47	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114802	07/23/25 11:24	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	114762	07/22/25 16:45	SA	EET MID
Soluble	Analysis	300.0		1			114796	07/23/25 12:08	CS	EET MID

Client Sample ID: CS-8
Date Collected: 07/22/25 11:30
Date Received: 07/22/25 14:05

Lab Sample ID: 890-8495-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	114786	07/23/25 08:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114784	07/23/25 12:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114830	07/23/25 12:13	SA	EET MID
Total/NA	Analysis	8015 NM		1			114853	07/23/25 12:14	SA	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	114776	07/23/25 07:47	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114802	07/23/25 12:14	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	114762	07/22/25 16:45	SA	EET MID
Soluble	Analysis	300.0		1			114796	07/23/25 12:15	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8495-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8495-1	CS-7	Solid	07/22/25 11:25	07/22/25 14:05	4
890-8495-2	CS-8	Solid	07/22/25 11:30	07/22/25 14:05	4

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Environment Testing

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3332
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199



890-8495 Chain of Custody

www.xenco.com Page 1

Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88520	City, State ZIP:	
Phone:	832-641-7719	Email:	gimoreno@earthsys.net

Work Order Comments	
Program: UST/PST	<input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting: Level II	<input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables: EDD	<input type="checkbox"/> ADAPT <input type="checkbox"/> Other:



[illegible]

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno. Its affixes standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$95.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		14:05 7/8c			

Date and Date: 08/05/2020 Row: 2020

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8495-1

SDG Number: Lea County, NM

Login Number: 8495

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8495-1

SDG Number: Lea County, NM

Login Number: 8495

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 07/23/25 08:23 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

- 1
- 2
- 3
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ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 7/23/2025 3:39:27 PM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-8497-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



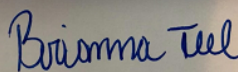
Eurofins Carlsbad

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



Generated
7/23/2025 3:39:27 PM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-8497-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-8497-1

Job ID: 890-8497-1

Eurofins Carlsbad

Job Narrative 890-8497-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 7/22/2025 2:05 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 2.8°C.

GC VOA

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

Diesel Range Organics

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-114776 and analytical batch 880-114802 was outside the upper control limits.

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

Client Sample ID: CS-5

Lab Sample ID: 890-8497-1

Date Collected: 07/22/25 11:15

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/23/25 08:41	07/23/25 12:34	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/23/25 08:41	07/23/25 12:34	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/23/25 08:41	07/23/25 12:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/23/25 08:41	07/23/25 12:34	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/23/25 08:41	07/23/25 12:34	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/23/25 08:41	07/23/25 12:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	07/23/25 08:41	07/23/25 12:34	1
1,4-Difluorobenzene (Surr)	97		70 - 130	07/23/25 08:41	07/23/25 12:34	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/23/25 12:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/23/25 12:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 12:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 12:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 12:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	07/23/25 07:47	07/23/25 12:31	1
o-Terphenyl	75		70 - 130	07/23/25 07:47	07/23/25 12:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/23/25 12:54	1

Client Sample ID: CS-6

Lab Sample ID: 890-8497-2

Date Collected: 07/22/25 11:20

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/23/25 08:41	07/23/25 12:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/23/25 08:41	07/23/25 12:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/23/25 08:41	07/23/25 12:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/23/25 08:41	07/23/25 12:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/23/25 08:41	07/23/25 12:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/23/25 08:41	07/23/25 12:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	81		70 - 130	07/23/25 08:41	07/23/25 12:54	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

Client Sample ID: CS-6

Lab Sample ID: 890-8497-2

Date Collected: 07/22/25 11:20

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	07/23/25 08:41	07/23/25 12:54	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/23/25 12:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			07/23/25 12:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/23/25 07:47	07/23/25 12:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		07/23/25 07:47	07/23/25 12:48	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/23/25 07:47	07/23/25 12:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				07/23/25 07:47	07/23/25 12:48	1
o-Terphenyl	115		70 - 130				07/23/25 07:47	07/23/25 12:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.1	U	10.1		mg/Kg			07/23/25 13:17	1

Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8497-1	CS-5	95	97
890-8497-2	CS-6	81	104
LCS 880-114786/1-A	Lab Control Sample	105	100
LCSD 880-114786/2-A	Lab Control Sample Dup	105	104
MB 880-114786/5-A	Method Blank	108	89
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8497-1	CS-5	79	75
890-8497-2	CS-6	120	115
LCS 880-114776/2-A	Lab Control Sample	92	100
LCSD 880-114776/3-A	Lab Control Sample Dup	108	97
MB 880-114776/1-A	Method Blank	137 S1+	136 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-114786/5-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/23/25 08:41	07/23/25 11:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	07/23/25 08:41	07/23/25 11:31	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/23/25 08:41	07/23/25 11:31	1

Lab Sample ID: LCS 880-114786/1-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08684		mg/Kg		87	70 - 130
Toluene	0.100	0.08407		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.09456		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1879		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09317		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-114786/2-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09520		mg/Kg		95	70 - 130	9	35
Toluene	0.100	0.08802		mg/Kg		88	70 - 130	5	35
Ethylbenzene	0.100	0.09836		mg/Kg		98	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1946		mg/Kg		97	70 - 130	3	35
o-Xylene	0.100	0.09686		mg/Kg		97	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-114776/1-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130				07/23/25 07:47	07/23/25 08:29	1
o-Terphenyl	136	S1+	70 - 130				07/23/25 07:47	07/23/25 08:29	1

Lab Sample ID: LCS 880-114776/2-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1059		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1068		mg/Kg		107	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	92		70 - 130				
o-Terphenyl	100		70 - 130				

Lab Sample ID: LCSD 880-114776/3-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114776

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	991.2		mg/Kg		99	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	936.6		mg/Kg		94	70 - 130	13	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	108		70 - 130						
o-Terphenyl	97		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-114762/1-A

Matrix: Solid

Analysis Batch: 114796

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/23/25 10:13	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-114762/2-A

Matrix: Solid

Analysis Batch: 114796

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	225.8		mg/Kg		90	90 - 110

Lab Sample ID: LCSD 880-114762/3-A

Matrix: Solid

Analysis Batch: 114796

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	229.4		mg/Kg		92	90 - 110	2	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 114784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8497-1	CS-5	Total/NA	Solid	8021B	114786
890-8497-2	CS-6	Total/NA	Solid	8021B	114786
MB 880-114786/5-A	Method Blank	Total/NA	Solid	8021B	114786
LCS 880-114786/1-A	Lab Control Sample	Total/NA	Solid	8021B	114786
LCSD 880-114786/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	114786

Prep Batch: 114786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8497-1	CS-5	Total/NA	Solid	5035	
890-8497-2	CS-6	Total/NA	Solid	5035	
MB 880-114786/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-114786/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-114786/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 114831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8497-1	CS-5	Total/NA	Solid	Total BTEX	
890-8497-2	CS-6	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 114776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8497-1	CS-5	Total/NA	Solid	8015NM Prep	
890-8497-2	CS-6	Total/NA	Solid	8015NM Prep	
MB 880-114776/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-114776/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-114776/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 114802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8497-1	CS-5	Total/NA	Solid	8015B NM	114776
890-8497-2	CS-6	Total/NA	Solid	8015B NM	114776
MB 880-114776/1-A	Method Blank	Total/NA	Solid	8015B NM	114776
LCS 880-114776/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	114776
LCSD 880-114776/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	114776

Analysis Batch: 114854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8497-1	CS-5	Total/NA	Solid	8015 NM	
890-8497-2	CS-6	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 114762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8497-1	CS-5	Soluble	Solid	DI Leach	
890-8497-2	CS-6	Soluble	Solid	DI Leach	
MB 880-114762/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-114762/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-114762/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

HPLC/IC

Analysis Batch: 114796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8497-1	CS-5	Soluble	Solid	300.0	114762
890-8497-2	CS-6	Soluble	Solid	300.0	114762
MB 880-114762/1-A	Method Blank	Soluble	Solid	300.0	114762
LCS 880-114762/2-A	Lab Control Sample	Soluble	Solid	300.0	114762
LCSD 880-114762/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	114762

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

Client Sample ID: CS-5
Date Collected: 07/22/25 11:15
Date Received: 07/22/25 14:05

Lab Sample ID: 890-8497-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	114786	07/23/25 08:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114784	07/23/25 12:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114831	07/23/25 12:34	SA	EET MID
Total/NA	Analysis	8015 NM		1			114854	07/23/25 12:31	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	114776	07/23/25 07:47	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114802	07/23/25 12:31	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	114762	07/22/25 16:45	SA	EET MID
Soluble	Analysis	300.0		1			114796	07/23/25 12:54	CS	EET MID

Client Sample ID: CS-6
Date Collected: 07/22/25 11:20
Date Received: 07/22/25 14:05

Lab Sample ID: 890-8497-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	114786	07/23/25 08:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114784	07/23/25 12:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114831	07/23/25 12:54	SA	EET MID
Total/NA	Analysis	8015 NM		1			114854	07/23/25 12:48	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	114776	07/23/25 07:47	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114802	07/23/25 12:48	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	114762	07/22/25 16:45	SA	EET MID
Soluble	Analysis	300.0		1			114796	07/23/25 13:17	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8497-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8497-1	CS-5	Solid	07/22/25 11:15	07/22/25 14:05	4
890-8497-2	CS-6	Solid	07/22/25 11:20	07/22/25 14:05	4

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Environment Testing

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

Chain of Custody



890-8497 Chain of Custody

www.xenco.com Page 7 of 1

Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gimoreno@earthsys.net

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other:	



[illegible]

Total		200.7 / 6010		200.8 / 6020:	
8RCRA	13PPM	Texas	11	Al	Sb
				As	Ba
				Be	B
				Cd	Ca
				Cr	Co
				Cu	Fe
				Mg	Mn
				Mo	Ni
				K	Se
				Ag	SiO ₂
				Na	Sr
				Ti	Sn
				U	V
				Zn	

Circle Method(s) and Metal(s) to be analyzed

Hg: 163.1 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$65.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		14.05 7/22			

Signature Date: 08/25/2020 Row: 2020

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8497-1

SDG Number: Lea County, NM

Login Number: 8497

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8497-1

SDG Number: Lea County, NM

Login Number: 8497

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 07/23/25 08:23 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

- 1
- 2
- 3
- 4
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- 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 7/23/2025 3:40:44 PM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-8499-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

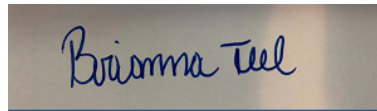
Eurofins Carlsbad

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



Generated
7/23/2025 3:40:44 PM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-8499-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-8499-1

Job ID: 890-8499-1

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Job Narrative 890-8499-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 7/22/2025 2:05 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 2.8°C.

GC VOA

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

Diesel Range Organics

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-114776 and analytical batch 880-114802 was outside the upper control limits.

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

Client Sample ID: SW-7

Lab Sample ID: 890-8499-1

Date Collected: 07/22/25 11:05

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 0-4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/23/25 08:41	07/23/25 13:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/23/25 08:41	07/23/25 13:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/23/25 08:41	07/23/25 13:15	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		07/23/25 08:41	07/23/25 13:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/23/25 08:41	07/23/25 13:15	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/23/25 08:41	07/23/25 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	07/23/25 08:41	07/23/25 13:15	1
1,4-Difluorobenzene (Surr)	96		70 - 130	07/23/25 08:41	07/23/25 13:15	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			07/23/25 13:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			07/23/25 13:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		07/23/25 07:47	07/23/25 13:04	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		07/23/25 07:47	07/23/25 13:04	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/23/25 07:47	07/23/25 13:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	07/23/25 07:47	07/23/25 13:04	1
o-Terphenyl	86		70 - 130	07/23/25 07:47	07/23/25 13:04	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.1	U	10.1		mg/Kg			07/23/25 13:24	1

Client Sample ID: SW-8

Lab Sample ID: 890-8499-2

Date Collected: 07/22/25 11:10

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 0-4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/23/25 08:41	07/23/25 13:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/23/25 08:41	07/23/25 13:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/23/25 08:41	07/23/25 13:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/23/25 08:41	07/23/25 13:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/23/25 08:41	07/23/25 13:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/23/25 08:41	07/23/25 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	07/23/25 08:41	07/23/25 13:35	1

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

Client Sample ID: SW-8

Lab Sample ID: 890-8499-2

Date Collected: 07/22/25 11:10

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 0-4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	07/23/25 08:41	07/23/25 13:35	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/23/25 13:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/23/25 13:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 13:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 13:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 13:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				07/23/25 07:47	07/23/25 13:21	1
o-Terphenyl	83		70 - 130				07/23/25 07:47	07/23/25 13:21	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<9.98	U	9.98		mg/Kg			07/23/25 13:32	1

Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8499-1	SW-7	94	96
890-8499-2	SW-8	94	95
LCS 880-114786/1-A	Lab Control Sample	105	100
LCSD 880-114786/2-A	Lab Control Sample Dup	105	104
MB 880-114786/5-A	Method Blank	108	89
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8499-1	SW-7	90	86
890-8499-2	SW-8	88	83
LCS 880-114776/2-A	Lab Control Sample	92	100
LCSD 880-114776/3-A	Lab Control Sample Dup	108	97
MB 880-114776/1-A	Method Blank	137 S1+	136 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-114786/5-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/23/25 08:41	07/23/25 11:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	07/23/25 08:41	07/23/25 11:31	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/23/25 08:41	07/23/25 11:31	1

Lab Sample ID: LCS 880-114786/1-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08684		mg/Kg		87	70 - 130
Toluene	0.100	0.08407		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.09456		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1879		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09317		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-114786/2-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09520		mg/Kg		95	70 - 130	9	35
Toluene	0.100	0.08802		mg/Kg		88	70 - 130	5	35
Ethylbenzene	0.100	0.09836		mg/Kg		98	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1946		mg/Kg		97	70 - 130	3	35
o-Xylene	0.100	0.09686		mg/Kg		97	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-114776/1-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130				07/23/25 07:47	07/23/25 08:29	1
o-Terphenyl	136	S1+	70 - 130				07/23/25 07:47	07/23/25 08:29	1

Lab Sample ID: LCS 880-114776/2-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1059		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1068		mg/Kg		107	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	92		70 - 130				
o-Terphenyl	100		70 - 130				

Lab Sample ID: LCSD 880-114776/3-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114776

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	991.2		mg/Kg		99	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	936.6		mg/Kg		94	70 - 130	13	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	108		70 - 130						
o-Terphenyl	97		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-114762/1-A

Matrix: Solid

Analysis Batch: 114796

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/23/25 10:13	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-114762/2-A

Matrix: Solid

Analysis Batch: 114796

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	225.8		mg/Kg		90	90 - 110

Lab Sample ID: LCSD 880-114762/3-A

Matrix: Solid

Analysis Batch: 114796

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	229.4		mg/Kg		92	90 - 110	2	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 114784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8499-1	SW-7	Total/NA	Solid	8021B	114786
890-8499-2	SW-8	Total/NA	Solid	8021B	114786
MB 880-114786/5-A	Method Blank	Total/NA	Solid	8021B	114786
LCS 880-114786/1-A	Lab Control Sample	Total/NA	Solid	8021B	114786
LCSD 880-114786/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	114786

Prep Batch: 114786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8499-1	SW-7	Total/NA	Solid	5035	
890-8499-2	SW-8	Total/NA	Solid	5035	
MB 880-114786/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-114786/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-114786/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 114840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8499-1	SW-7	Total/NA	Solid	Total BTEX	
890-8499-2	SW-8	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 114776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8499-1	SW-7	Total/NA	Solid	8015NM Prep	
890-8499-2	SW-8	Total/NA	Solid	8015NM Prep	
MB 880-114776/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-114776/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-114776/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 114802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8499-1	SW-7	Total/NA	Solid	8015B NM	114776
890-8499-2	SW-8	Total/NA	Solid	8015B NM	114776
MB 880-114776/1-A	Method Blank	Total/NA	Solid	8015B NM	114776
LCS 880-114776/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	114776
LCSD 880-114776/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	114776

Analysis Batch: 114855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8499-1	SW-7	Total/NA	Solid	8015 NM	
890-8499-2	SW-8	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 114762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8499-1	SW-7	Soluble	Solid	DI Leach	
890-8499-2	SW-8	Soluble	Solid	DI Leach	
MB 880-114762/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-114762/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-114762/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

HPLC/IC

Analysis Batch: 114796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8499-1	SW-7	Soluble	Solid	300.0	114762
890-8499-2	SW-8	Soluble	Solid	300.0	114762
MB 880-114762/1-A	Method Blank	Soluble	Solid	300.0	114762
LCS 880-114762/2-A	Lab Control Sample	Soluble	Solid	300.0	114762
LCSD 880-114762/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	114762

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

Client Sample ID: SW-7

Lab Sample ID: 890-8499-1

Date Collected: 07/22/25 11:05

Matrix: Solid

Date Received: 07/22/25 14:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	114786	07/23/25 08:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114784	07/23/25 13:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114840	07/23/25 13:15	SA	EET MID
Total/NA	Analysis	8015 NM		1			114855	07/23/25 13:04	SA	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	114776	07/23/25 07:47	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114802	07/23/25 13:04	TKC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	114762	07/22/25 16:45	SA	EET MID
Soluble	Analysis	300.0		1			114796	07/23/25 13:24	CS	EET MID

Client Sample ID: SW-8

Lab Sample ID: 890-8499-2

Date Collected: 07/22/25 11:10

Matrix: Solid

Date Received: 07/22/25 14:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	114786	07/23/25 08:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114784	07/23/25 13:35	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114840	07/23/25 13:35	SA	EET MID
Total/NA	Analysis	8015 NM		1			114855	07/23/25 13:21	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	114776	07/23/25 07:47	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114802	07/23/25 13:21	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	114762	07/22/25 16:45	SA	EET MID
Soluble	Analysis	300.0		1			114796	07/23/25 13:32	CS	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8499-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8499-1	SW-7	Solid	07/22/25 11:05	07/22/25 14:05	0-4
890-8499-2	SW-8	Solid	07/22/25 11:10	07/22/25 14:05	0-4

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Environment Testing

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 565-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gmoreno@earthsys.net

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: _____



[illegible]

Total 200.7 / 6010 200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed

8RCFA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn	
Hg: 1631 / 245.1 / 7470 / 74																															

Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		14.05 7/22			

Expiry Date: 06/25/2020 Rev: 2020

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8499-1

SDG Number: Lea County, NM

Login Number: 8499

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8499-1

SDG Number: Lea County, NM

Login Number: 8499

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 07/23/25 08:23 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 7/23/2025 3:42:02 PM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-8500-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



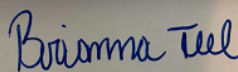
Eurofins Carlsbad

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



Generated
7/23/2025 3:42:02 PM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-8500-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	12
Certification Summary	13
Method Summary	14
Sample Summary	15
Chain of Custody	16
Receipt Checklists	17

1

2

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10

11

12

13

14

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-8500-1

Job ID: 890-8500-1

Eurofins Carlsbad

Job Narrative 890-8500-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 7/22/2025 2:05 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C.

GC VOA

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

Diesel Range Organics

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-114776 and analytical batch 880-114802 was outside the upper control limits.

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

Client Sample ID: SW-6

Lab Sample ID: 890-8500-1

Date Collected: 07/22/25 11:00

Matrix: Solid

Date Received: 07/22/25 14:05

Sample Depth: 0-4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 13:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 13:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 13:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/23/25 08:41	07/23/25 13:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 13:56	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/23/25 08:41	07/23/25 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	07/23/25 08:41	07/23/25 13:56	1
1,4-Difluorobenzene (Surr)	98		70 - 130	07/23/25 08:41	07/23/25 13:56	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/23/25 13:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			07/23/25 13:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/23/25 07:47	07/23/25 13:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/23/25 07:47	07/23/25 13:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/23/25 07:47	07/23/25 13:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	07/23/25 07:47	07/23/25 13:38	1
o-Terphenyl	78		70 - 130	07/23/25 07:47	07/23/25 13:38	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.0		9.96		mg/Kg			07/23/25 13:40	1

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Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8500-1	SW-6	97	98
LCS 880-114786/1-A	Lab Control Sample	105	100
LCSD 880-114786/2-A	Lab Control Sample Dup	105	104
MB 880-114786/5-A	Method Blank	108	89
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8500-1	SW-6	83	78
LCS 880-114776/2-A	Lab Control Sample	92	100
LCSD 880-114776/3-A	Lab Control Sample Dup	108	97
MB 880-114776/1-A	Method Blank	137 S1+	136 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-114786/5-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/23/25 08:41	07/23/25 11:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/23/25 08:41	07/23/25 11:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	07/23/25 08:41	07/23/25 11:31	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/23/25 08:41	07/23/25 11:31	1

Lab Sample ID: LCS 880-114786/1-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08684		mg/Kg		87	70 - 130
Toluene	0.100	0.08407		mg/Kg		84	70 - 130
Ethylbenzene	0.100	0.09456		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1879		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09317		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-114786/2-A

Matrix: Solid

Analysis Batch: 114784

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114786

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09520		mg/Kg		95	70 - 130	9	35
Toluene	0.100	0.08802		mg/Kg		88	70 - 130	5	35
Ethylbenzene	0.100	0.09836		mg/Kg		98	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.1946		mg/Kg		97	70 - 130	3	35
o-Xylene	0.100	0.09686		mg/Kg		97	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-114776/1-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 114776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/23/25 07:47	07/23/25 08:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130				07/23/25 07:47	07/23/25 08:29	1
o-Terphenyl	136	S1+	70 - 130				07/23/25 07:47	07/23/25 08:29	1

Lab Sample ID: LCS 880-114776/2-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 114776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1059		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1068		mg/Kg		107	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	92		70 - 130				
o-Terphenyl	100		70 - 130				

Lab Sample ID: LCSD 880-114776/3-A

Matrix: Solid

Analysis Batch: 114802

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 114776

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	991.2		mg/Kg		99	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	1000	936.6		mg/Kg		94	70 - 130	13	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	108		70 - 130						
o-Terphenyl	97		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-114762/1-A

Matrix: Solid

Analysis Batch: 114796

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/23/25 10:13	1

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-114762/2-A

Matrix: Solid

Analysis Batch: 114796

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	225.8		mg/Kg		90	90 - 110

Lab Sample ID: LCSD 880-114762/3-A

Matrix: Solid

Analysis Batch: 114796

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	229.4		mg/Kg		92	90 - 110	2	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 114784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8500-1	SW-6	Total/NA	Solid	8021B	114786
MB 880-114786/5-A	Method Blank	Total/NA	Solid	8021B	114786
LCS 880-114786/1-A	Lab Control Sample	Total/NA	Solid	8021B	114786
LCSD 880-114786/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	114786

Prep Batch: 114786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8500-1	SW-6	Total/NA	Solid	5035	
MB 880-114786/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-114786/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-114786/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 114861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8500-1	SW-6	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 114776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8500-1	SW-6	Total/NA	Solid	8015NM Prep	
MB 880-114776/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-114776/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-114776/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 114802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8500-1	SW-6	Total/NA	Solid	8015B NM	114776
MB 880-114776/1-A	Method Blank	Total/NA	Solid	8015B NM	114776
LCS 880-114776/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	114776
LCSD 880-114776/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	114776

Analysis Batch: 114856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8500-1	SW-6	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 114762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8500-1	SW-6	Soluble	Solid	DI Leach	
MB 880-114762/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-114762/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-114762/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 114796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8500-1	SW-6	Soluble	Solid	300.0	114762
MB 880-114762/1-A	Method Blank	Soluble	Solid	300.0	114762
LCS 880-114762/2-A	Lab Control Sample	Soluble	Solid	300.0	114762
LCSD 880-114762/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	114762

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

Client Sample ID: SW-6

Lab Sample ID: 890-8500-1

Date Collected: 07/22/25 11:00

Matrix: Solid

Date Received: 07/22/25 14:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	114786	07/23/25 08:41	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114784	07/23/25 13:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114861	07/23/25 13:56	SA	EET MID
Total/NA	Analysis	8015 NM		1			114856	07/23/25 13:38	SA	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	114776	07/23/25 07:47	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114802	07/23/25 13:38	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	114762	07/22/25 16:45	SA	EET MID
Soluble	Analysis	300.0		1			114796	07/23/25 13:40	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8500-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8500-1	SW-6	Solid	07/22/25 11:00	07/22/25 14:05	0-4

- 1
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- 3
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- 7
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Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3343
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody



890-8500 Chain of Custody

www.xenco.com

Page ____ of ____

Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gmoreno@earthsys.net

Work Order Comments
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:



[illegible]

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Tl Sn U V Zn

Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns trademark, terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$55.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		14.05.17/22			

Excluded Date: 08/25/2020 Rev: 2020

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8500-1

SDG Number: Lea County, NM

Login Number: 8500

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8500-1

SDG Number: Lea County, NM

Login Number: 8500

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 07/23/25 08:23 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

- 1
- 2
- 3
- 4
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- 9
- 10
- 11
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ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 8/1/2025 11:53:58 AM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-8550-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

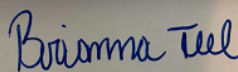
Eurofins Carlsbad

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



Generated
8/1/2025 11:53:58 AM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-8550-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	12
Lab Chronicle	14
Certification Summary	15
Method Summary	16
Sample Summary	17
Chain of Custody	18
Receipt Checklists	19

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-8550-1

Job ID: 890-8550-1

Eurofins Carlsbad

Job Narrative 890-8550-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 7/31/2025 10:36 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.0°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: CS-2 (890-8550-1).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: CS-2 (890-8550-1) and (890-8550-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-115564 and analytical batch 880-115561 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.

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

Diesel Range Organics

Method 8015MOD_NM: Though the laboratory control sample duplicate (LCSD) did run, a report for the analysis did not generate. The matrix spike/matrix spike duplicate (MS/MSD) meet acceptance criteria and are thereby used to validate the batch.

(LCS 880-115578/2-A)

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

Client Sample ID: CS-2

Lab Sample ID: 890-8550-1

Date Collected: 07/31/25 08:30

Matrix: Solid

Date Received: 07/31/25 10:36

Sample Depth: 8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0229		0.0202		mg/Kg		08/01/25 08:43	08/01/25 12:18	10
Toluene	0.594		0.101		mg/Kg		08/01/25 08:43	08/01/25 11:37	50
Ethylbenzene	0.858		0.101		mg/Kg		08/01/25 08:43	08/01/25 11:37	50
m-Xylene & p-Xylene	3.22		0.202		mg/Kg		08/01/25 08:43	08/01/25 11:37	50
o-Xylene	1.25		0.101		mg/Kg		08/01/25 08:43	08/01/25 11:37	50
Xylenes, Total	4.47		0.202		mg/Kg		08/01/25 08:43	08/01/25 11:37	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130	08/01/25 08:43	08/01/25 11:37	50
1,4-Difluorobenzene (Surr)	80		70 - 130	08/01/25 08:43	08/01/25 11:37	50

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	5.94		0.202		mg/Kg			08/01/25 12:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	120		49.8		mg/Kg			08/01/25 11:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		08/01/25 10:42	08/01/25 11:11	1
Diesel Range Organics (Over C10-C28)	120		49.8		mg/Kg		08/01/25 10:42	08/01/25 11:11	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/01/25 10:42	08/01/25 11:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	08/01/25 10:42	08/01/25 11:11	1
o-Terphenyl	114		70 - 130	08/01/25 10:42	08/01/25 11:11	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.9		9.96		mg/Kg			08/01/25 09:43	1

Eurofins Carlsbad

Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8550-1	CS-2	134 S1+	80
890-8550-1 MS	CS-2	130	89
890-8550-1 MSD	CS-2	152 S1+	82
LCS 880-115564/1-A	Lab Control Sample	99	100
LCSD 880-115564/2-A	Lab Control Sample Dup	97	99
MB 880-115564/5-A	Method Blank	102	93
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8550-1	CS-2	105	114
890-8550-1 MS	CS-2	116	120
890-8550-1 MSD	CS-2	117	119
LCS 880-115578/2-A	Lab Control Sample	118	118
MB 880-115578/1-A	Method Blank	97	108
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-115564/5-A

Matrix: Solid

Analysis Batch: 115561

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/01/25 08:43	08/01/25 11:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	08/01/25 08:43	08/01/25 11:15	1
1,4-Difluorobenzene (Surr)	93		70 - 130	08/01/25 08:43	08/01/25 11:15	1

Lab Sample ID: LCS 880-115564/1-A

Matrix: Solid

Analysis Batch: 115561

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 115564

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09152		mg/Kg		92	70 - 130
Toluene	0.100	0.08963		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.1020		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2024		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1006		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-115564/2-A

Matrix: Solid

Analysis Batch: 115561

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 115564

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09461		mg/Kg		95	70 - 130	3	35
Toluene	0.100	0.09016		mg/Kg		90	70 - 130	1	35
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2024		mg/Kg		101	70 - 130	0	35
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-8550-1 MS

Matrix: Solid

Analysis Batch: 115561

Client Sample ID: CS-2

Prep Type: Total/NA

Prep Batch: 115564

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.101	U F1	0.100	3.153	F1	mg/Kg		3153	70 - 130
Toluene	0.594		0.100	4.014	4	mg/Kg		3420	70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

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

Lab Sample ID: 890-8550-1 MS

Matrix: Solid

Analysis Batch: 115561

Client Sample ID: CS-2

Prep Type: Total/NA

Prep Batch: 115564

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.858		0.100	4.860	4	mg/Kg		4002	70 - 130
m-Xylene & p-Xylene	3.22		0.200	11.17	4	mg/Kg		3974	70 - 130
o-Xylene	1.25		0.100	5.128	4	mg/Kg		3874	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	130		70 - 130						
1,4-Difluorobenzene (Surr)	89		70 - 130						

Lab Sample ID: 890-8550-1 MSD

Matrix: Solid

Analysis Batch: 115561

Client Sample ID: CS-2

Prep Type: Total/NA

Prep Batch: 115564

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.101	U F1	0.100	3.099	F1	mg/Kg		3099	70 - 130	2	35
Toluene	0.594		0.100	4.786	4	mg/Kg		4192	70 - 130	18	35
Ethylbenzene	0.858		0.100	6.091	4	mg/Kg		5233	70 - 130	22	35
m-Xylene & p-Xylene	3.22		0.200	14.18	4	mg/Kg		5479	70 - 130	24	35
o-Xylene	1.25		0.100	6.638	4	mg/Kg		5384	70 - 130	26	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	152	S1+	70 - 130								
1,4-Difluorobenzene (Surr)	82		70 - 130								

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

Lab Sample ID: MB 880-115578/1-A

Matrix: Solid

Analysis Batch: 115584

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115578

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/01/25 10:41	08/01/25 09:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/01/25 10:41	08/01/25 09:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/01/25 10:41	08/01/25 09:27	1
Surrogate	MB %Recovery	MB Qualifier	Limits						
1-Chlorooctane	97		70 - 130						
o-Terphenyl	108		70 - 130						

Lab Sample ID: LCS 880-115578/2-A

Matrix: Solid

Analysis Batch: 115584

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 115578

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1017		mg/Kg		102	70 - 130
Diesel Range Organics (Over C10-C28)	1000	886.4		mg/Kg		89	70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

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

Lab Sample ID: LCS 880-115578/2-A

Matrix: Solid

Analysis Batch: 115584

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 115578

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: 890-8550-1 MS

Matrix: Solid

Analysis Batch: 115584

Client Sample ID: CS-2

Prep Type: Total/NA

Prep Batch: 115578

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	1000	968.1		mg/Kg		94	70 - 130	
Diesel Range Organics (Over C10-C28)	120		1000	972.0		mg/Kg		85	70 - 130	
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	116		70 - 130							
o-Terphenyl	120		70 - 130							

Lab Sample ID: 890-8550-1 MSD

Matrix: Solid

Analysis Batch: 115584

Client Sample ID: CS-2

Prep Type: Total/NA

Prep Batch: 115578

	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	<49.8	U	1000	976.3		mg/Kg		95	70 - 130	1	20	
Diesel Range Organics (Over C10-C28)	120		1000	977.0		mg/Kg		85	70 - 130	1	20	
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	117		70 - 130									
o-Terphenyl	119		70 - 130									

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-115549/1-A

Matrix: Solid

Analysis Batch: 115563

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<10.0	U	10.0		mg/Kg			08/01/25 09:26	1	

Lab Sample ID: LCS 880-115549/2-A

Matrix: Solid

Analysis Batch: 115563

Client Sample ID: Lab Control Sample

Prep Type: Soluble

		Spike	LCS	LCS				%Rec	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride		250	236.6		mg/Kg		95	90 - 110	

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-115549/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 115563											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	236.8		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 890-8550-1 MS				Client Sample ID: CS-2							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 115563											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	14.9		249	260.0		mg/Kg		98	90 - 110		

Lab Sample ID: 890-8550-1 MSD				Client Sample ID: CS-2							
Matrix: Solid				Prep Type: Soluble							
Analysis Batch: 115563											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	14.9		249	260.8		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 115561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8550-1	CS-2	Total/NA	Solid	8021B	115564
890-8550-1	CS-2	Total/NA	Solid	8021B	115564
MB 880-115564/5-A	Method Blank	Total/NA	Solid	8021B	115564
LCS 880-115564/1-A	Lab Control Sample	Total/NA	Solid	8021B	115564
LCSD 880-115564/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	115564
890-8550-1 MS	CS-2	Total/NA	Solid	8021B	115564
890-8550-1 MSD	CS-2	Total/NA	Solid	8021B	115564

Prep Batch: 115564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8550-1	CS-2	Total/NA	Solid	5035	
MB 880-115564/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-115564/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-115564/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-8550-1 MS	CS-2	Total/NA	Solid	5035	
890-8550-1 MSD	CS-2	Total/NA	Solid	5035	

Analysis Batch: 115600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8550-1	CS-2	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 115578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8550-1	CS-2	Total/NA	Solid	8015NM Prep	
MB 880-115578/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-115578/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
890-8550-1 MS	CS-2	Total/NA	Solid	8015NM Prep	
890-8550-1 MSD	CS-2	Total/NA	Solid	8015NM Prep	

Analysis Batch: 115584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8550-1	CS-2	Total/NA	Solid	8015B NM	115578
MB 880-115578/1-A	Method Blank	Total/NA	Solid	8015B NM	115578
LCS 880-115578/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	115578
890-8550-1 MS	CS-2	Total/NA	Solid	8015B NM	115578
890-8550-1 MSD	CS-2	Total/NA	Solid	8015B NM	115578

Analysis Batch: 115596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8550-1	CS-2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 115549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8550-1	CS-2	Soluble	Solid	DI Leach	
MB 880-115549/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-115549/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-115549/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-8550-1 MS	CS-2	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

HPLC/IC (Continued)

Leach Batch: 115549 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8550-1 MSD	CS-2	Soluble	Solid	DI Leach	

Analysis Batch: 115563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8550-1	CS-2	Soluble	Solid	300.0	115549
MB 880-115549/1-A	Method Blank	Soluble	Solid	300.0	115549
LCS 880-115549/2-A	Lab Control Sample	Soluble	Solid	300.0	115549
LCSD 880-115549/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	115549
890-8550-1 MS	CS-2	Soluble	Solid	300.0	115549
890-8550-1 MSD	CS-2	Soluble	Solid	300.0	115549

Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

Client Sample ID: CS-2

Lab Sample ID: 890-8550-1

Date Collected: 07/31/25 08:30

Matrix: Solid

Date Received: 07/31/25 10:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	115564	08/01/25 08:43	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	115561	08/01/25 11:37	MNR	EET MID
Total/NA	Prep	5035			4.95 g	5 mL	115564	08/01/25 08:43	MNR	EET MID
Total/NA	Analysis	8021B		10	5 mL	5 mL	115561	08/01/25 12:18	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			115600	08/01/25 12:18	SA	EET MID
Total/NA	Analysis	8015 NM		1			115596	08/01/25 11:11	SA	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	115578	08/01/25 10:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	115584	08/01/25 11:11	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	115549	07/31/25 17:02	SMC	EET MID
Soluble	Analysis	300.0		1			115563	08/01/25 09:43	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8550-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8550-1	CS-2	Solid	07/31/25 08:30	07/31/25 10:36	8

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



Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3344
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No:

www.xenco.com Page 1 of 1

Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gimoreno@earthsys.net



Work Order Comments
Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other:

[illegible]

Circle Method(s) and Metal(s) to be analyzed		Total 200.7 / 6010		200.8 / 6020:																										
8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Tl	Sn	U	V	Zn

Hg: 163.1 / 245.1 / 7470 / 7477

Notice: Signature of this document certifying the relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$5.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/31 1036			

Enforced Date: 08/25/2020 Row: 2020

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8550-1

SDG Number: Lea County, NM

Login Number: 8550

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8550-1

SDG Number: Lea County, NM

Login Number: 8550

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 08/01/25 08:06 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765

Generated 8/1/2025 11:53:57 AM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-8551-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



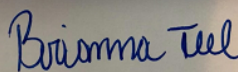
Eurofins Carlsbad

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



Generated
8/1/2025 11:53:57 AM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-8551-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	10
Lab Chronicle	11
Certification Summary	12
Method Summary	13
Sample Summary	14
Chain of Custody	15
Receipt Checklists	16

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-8551-1

Job ID: 890-8551-1

Eurofins Carlsbad

Job Narrative 890-8551-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 7/31/2025 10:36 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.0°C.

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: CS-3 (890-8551-1), (890-8550-A-1-F) and (890-8550-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Diesel Range Organics

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: CS-3 (890-8551-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Though the laboratory control sample duplicate (LCSD) did run, a report for the analysis did not generate. The matrix spike/matrix spike duplicate (MS/MSD) meet acceptance criteria and are thereby used to validate the batch.

(LCS 880-115578/2-A)

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

Client Sample ID: CS-3

Lab Sample ID: 890-8551-1

Date Collected: 07/31/25 08:35

Matrix: Solid

Date Received: 07/31/25 10:36

Sample Depth: 8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.287		0.100		mg/Kg		08/01/25 08:43	08/01/25 11:57	50
Toluene	6.27		0.100		mg/Kg		08/01/25 08:43	08/01/25 11:57	50
Ethylbenzene	3.88		0.100		mg/Kg		08/01/25 08:43	08/01/25 11:57	50
m-Xylene & p-Xylene	13.1		0.201		mg/Kg		08/01/25 08:43	08/01/25 11:57	50
o-Xylene	5.11		0.100		mg/Kg		08/01/25 08:43	08/01/25 11:57	50
Xylenes, Total	18.2		0.201		mg/Kg		08/01/25 08:43	08/01/25 11:57	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130	08/01/25 08:43	08/01/25 11:57	50
1,4-Difluorobenzene (Surr)	89		70 - 130	08/01/25 08:43	08/01/25 11:57	50

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	28.6		0.201		mg/Kg			08/01/25 11:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1740		50.5		mg/Kg			08/01/25 11:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	440		50.5		mg/Kg		08/01/25 10:42	08/01/25 11:56	1
Diesel Range Organics (Over C10-C28)	1300		50.5		mg/Kg		08/01/25 10:42	08/01/25 11:56	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		08/01/25 10:42	08/01/25 11:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130	08/01/25 10:42	08/01/25 11:56	1
o-Terphenyl	139	S1+	70 - 130	08/01/25 10:42	08/01/25 11:56	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.0		9.98		mg/Kg			08/01/25 10:00	1

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Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8551-1	CS-3	171 S1+	89
LCS 880-115564/1-A	Lab Control Sample	99	100
LCSD 880-115564/2-A	Lab Control Sample Dup	97	99
MB 880-115564/5-A	Method Blank	102	93
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8551-1	CS-3	125	139 S1+
LCS 880-115578/2-A	Lab Control Sample	118	118
MB 880-115578/1-A	Method Blank	97	108
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-115564/5-A

Matrix: Solid

Analysis Batch: 115561

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/01/25 08:43	08/01/25 11:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/01/25 08:43	08/01/25 11:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	08/01/25 08:43	08/01/25 11:15	1
1,4-Difluorobenzene (Surr)	93		70 - 130	08/01/25 08:43	08/01/25 11:15	1

Lab Sample ID: LCS 880-115564/1-A

Matrix: Solid

Analysis Batch: 115561

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 115564

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09152		mg/Kg		92	70 - 130
Toluene	0.100	0.08963		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.1020		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2024		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1006		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: LCSD 880-115564/2-A

Matrix: Solid

Analysis Batch: 115561

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 115564

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09461		mg/Kg		95	70 - 130	3	35
Toluene	0.100	0.09016		mg/Kg		90	70 - 130	1	35
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2024		mg/Kg		101	70 - 130	0	35
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-115578/1-A

Matrix: Solid

Analysis Batch: 115584

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115578

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/01/25 10:41	08/01/25 09:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/01/25 10:41	08/01/25 09:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/01/25 10:41	08/01/25 09:27	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				08/01/25 10:41	08/01/25 09:27	1
o-Terphenyl	108		70 - 130				08/01/25 10:41	08/01/25 09:27	1

Lab Sample ID: LCS 880-115578/2-A

Matrix: Solid

Analysis Batch: 115584

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 115578

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1017		mg/Kg		102	70 - 130
Diesel Range Organics (Over C10-C28)	1000	886.4		mg/Kg		89	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	118		70 - 130				
o-Terphenyl	118		70 - 130				

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-115549/1-A

Matrix: Solid

Analysis Batch: 115563

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			08/01/25 09:26	1

Lab Sample ID: LCS 880-115549/2-A

Matrix: Solid

Analysis Batch: 115563

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	236.6		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-115549/3-A

Matrix: Solid

Analysis Batch: 115563

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	236.8		mg/Kg		95	90 - 110	0	20

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 115561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8551-1	CS-3	Total/NA	Solid	8021B	115564
MB 880-115564/5-A	Method Blank	Total/NA	Solid	8021B	115564
LCS 880-115564/1-A	Lab Control Sample	Total/NA	Solid	8021B	115564
LCSD 880-115564/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	115564

Prep Batch: 115564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8551-1	CS-3	Total/NA	Solid	5035	
MB 880-115564/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-115564/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-115564/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 115601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8551-1	CS-3	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 115578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8551-1	CS-3	Total/NA	Solid	8015NM Prep	
MB 880-115578/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-115578/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

Analysis Batch: 115584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8551-1	CS-3	Total/NA	Solid	8015B NM	115578
MB 880-115578/1-A	Method Blank	Total/NA	Solid	8015B NM	115578
LCS 880-115578/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	115578

Analysis Batch: 115597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8551-1	CS-3	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 115549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8551-1	CS-3	Soluble	Solid	DI Leach	
MB 880-115549/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-115549/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-115549/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 115563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8551-1	CS-3	Soluble	Solid	300.0	115549
MB 880-115549/1-A	Method Blank	Soluble	Solid	300.0	115549
LCS 880-115549/2-A	Lab Control Sample	Soluble	Solid	300.0	115549
LCSD 880-115549/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	115549

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

Client Sample ID: CS-3

Lab Sample ID: 890-8551-1

Date Collected: 07/31/25 08:35

Matrix: Solid

Date Received: 07/31/25 10:36

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	115564	08/01/25 08:43	MNR	EET MID
Total/NA	Analysis	8021B		50	5 mL	5 mL	115561	08/01/25 11:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			115601	08/01/25 11:57	SA	EET MID
Total/NA	Analysis	8015 NM		1			115597	08/01/25 11:56	SA	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	115578	08/01/25 10:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	115584	08/01/25 11:56	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	115549	07/31/25 17:02	SMC	EET MID
Soluble	Analysis	300.0		1			115563	08/01/25 10:00	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8551-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8551-1	CS-3	Solid	07/31/25 08:35	07/31/25 10:36	8

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Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300
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) 986-3199

Chain of Custody

A



030-0251 Chain of Custody

Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gimoreno@earthsys.net

Work Order Comments

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRAP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: _____

[illegible]

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Hg: 1631 / 245.1 / 7470 / 74

Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document entails relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xencro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xencro will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xencro. A minimum charge of \$65.00 will be applied to each project and a charge of \$45 for each sample submitted to Eurofins Xencro, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
0 <i>[Signature]</i>	<i>[Signature]</i>	7/31/03	2		
3			4		
5			6		

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8551-1

SDG Number: Lea County, NM

Login Number: 8551

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8551-1

SDG Number: Lea County, NM

Login Number: 8551

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 08/01/25 08:06 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765
Generated 8/7/2025 7:59:02 AM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-8570-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



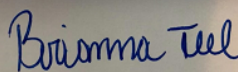
Eurofins Carlsbad

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



Generated
8/7/2025 7:59:02 AM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-8570-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

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Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-8570-1

Job ID: 890-8570-1

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Job Narrative 890-8570-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 8/6/2025 8:59 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.2°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW-10 (890-8570-1).

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

Client Sample ID: SW-10

Lab Sample ID: 890-8570-1

Date Collected: 08/05/25 15:10

Matrix: Solid

Date Received: 08/06/25 08:59

Sample Depth: 6-10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/06/25 21:00	08/07/25 03:34	1
Toluene	0.0107		0.00200		mg/Kg		08/06/25 21:00	08/07/25 03:34	1
Ethylbenzene	0.00714		0.00200		mg/Kg		08/06/25 21:00	08/07/25 03:34	1
m-Xylene & p-Xylene	0.0197		0.00400		mg/Kg		08/06/25 21:00	08/07/25 03:34	1
o-Xylene	0.00754		0.00200		mg/Kg		08/06/25 21:00	08/07/25 03:34	1
Xylenes, Total	0.0272		0.00400		mg/Kg		08/06/25 21:00	08/07/25 03:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				08/06/25 21:00	08/07/25 03:34	1
1,4-Difluorobenzene (Surr)	92		70 - 130				08/06/25 21:00	08/07/25 03:34	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0451		0.00400		mg/Kg			08/07/25 03:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			08/07/25 02:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/07/25 02:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/07/25 02:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/07/25 02:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130				08/07/25 07:32	08/07/25 02:13	1
o-Terphenyl	108		70 - 130				08/07/25 07:32	08/07/25 02:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.8		9.98		mg/Kg			08/07/25 03:17	1

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Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8570-1	SW-10	106	92
LCS 880-115979/1-A	Lab Control Sample	96	101
LCSD 880-115979/2-A	Lab Control Sample Dup	105	106
MB 880-115940/5-A	Method Blank	99	97
MB 880-115979/5-A	Method Blank	96	91
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8570-1	SW-10	99	108
LCS 880-116031/2-A	Lab Control Sample	121	122
LCSD 880-116031/3-A	Lab Control Sample Dup	120	121
MB 880-116031/1-A	Method Blank	108	121
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-115940/5-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/06/25 09:03	08/06/25 11:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	08/06/25 09:03	08/06/25 11:36	1
1,4-Difluorobenzene (Surr)	97		70 - 130	08/06/25 09:03	08/06/25 11:36	1

Lab Sample ID: MB 880-115979/5-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/06/25 11:26	08/06/25 22:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	08/06/25 11:26	08/06/25 22:34	1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/06/25 11:26	08/06/25 22:34	1

Lab Sample ID: LCS 880-115979/1-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 115979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09652		mg/Kg		97	70 - 130
Toluene	0.100	0.09198		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.1046		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2076		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1044		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-115979/2-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 115979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1007		mg/Kg		101	70 - 130	4	35

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-115979/2-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 115979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Toluene	0.100	0.09732		mg/Kg		97	70 - 130	6		35
Ethylbenzene	0.100	0.1105		mg/Kg		110	70 - 130	5		35
m-Xylene & p-Xylene	0.200	0.2210		mg/Kg		110	70 - 130	6		35
o-Xylene	0.100	0.1112		mg/Kg		111	70 - 130	6		35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-116031/1-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 116031

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/06/25 23:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/06/25 23:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/06/25 23:16	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	108		70 - 130	08/07/25 07:32	08/06/25 23:16	1
o-Terphenyl	121		70 - 130	08/07/25 07:32	08/06/25 23:16	1

Lab Sample ID: LCS 880-116031/2-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 116031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1038		mg/Kg		104	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1129		mg/Kg		113	70 - 130	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	121		70 - 130
o-Terphenyl	122		70 - 130

Lab Sample ID: LCSD 880-116031/3-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 116031

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	1030		mg/Kg		103	70 - 130	1		20
Diesel Range Organics (Over C10-C28)	1000	1084		mg/Kg		108	70 - 130	4		20

Eurofins Carlsbad

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-116031/3-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 116031

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	120		70 - 130
o-Terphenyl	121		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-116013/1-A

Matrix: Solid

Analysis Batch: 116027

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	<10.0	U	10.0		mg/Kg			08/06/25 23:50	1

Lab Sample ID: LCS 880-116013/2-A

Matrix: Solid

Analysis Batch: 116027

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	250	249.6		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-116013/3-A

Matrix: Solid

Analysis Batch: 116027

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	250	257.0		mg/Kg		103	90 - 110	3	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 115927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8570-1	SW-10	Total/NA	Solid	8021B	115979
MB 880-115940/5-A	Method Blank	Total/NA	Solid	8021B	115940
MB 880-115979/5-A	Method Blank	Total/NA	Solid	8021B	115979
LCS 880-115979/1-A	Lab Control Sample	Total/NA	Solid	8021B	115979
LCSD 880-115979/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	115979

Prep Batch: 115940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-115940/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 115979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8570-1	SW-10	Total/NA	Solid	5035	
MB 880-115979/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-115979/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-115979/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 116043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8570-1	SW-10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 115935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8570-1	SW-10	Total/NA	Solid	8015B NM	116031
MB 880-116031/1-A	Method Blank	Total/NA	Solid	8015B NM	116031
LCS 880-116031/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	116031
LCSD 880-116031/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	116031

Prep Batch: 116031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8570-1	SW-10	Total/NA	Solid	8015NM Prep	
MB 880-116031/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-116031/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-116031/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 116048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8570-1	SW-10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 116013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8570-1	SW-10	Soluble	Solid	DI Leach	
MB 880-116013/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-116013/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-116013/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

HPLC/IC

Analysis Batch: 116027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8570-1	SW-10	Soluble	Solid	300.0	116013
MB 880-116013/1-A	Method Blank	Soluble	Solid	300.0	116013
LCS 880-116013/2-A	Lab Control Sample	Soluble	Solid	300.0	116013
LCSD 880-116013/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	116013

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

Client Sample ID: SW-10

Date Collected: 08/05/25 15:10

Date Received: 08/06/25 08:59

Lab Sample ID: 890-8570-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	115979	08/06/25 21:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	115927	08/07/25 03:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			116043	08/07/25 03:34	SA	EET MID
Total/NA	Analysis	8015 NM		1			116048	08/07/25 02:13	SA	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	115935	08/07/25 02:13	TKC	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	116031	08/07/25 07:32	EL	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	116013	08/06/25 14:50	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	116027	08/07/25 03:17	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

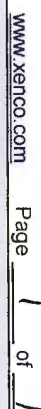
Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8570-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8570-1	SW-10	Solid	08/05/25 15:10	08/06/25 08:59	6-10

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890-8570 Chain of Custody

[illegible]Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8570-1

SDG Number: Lea County, NM

Login Number: 8570

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8570-1

SDG Number: Lea County, NM

Login Number: 8570

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 08/07/25 07:30 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765
Generated 8/7/2025 7:59:05 AM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-8571-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



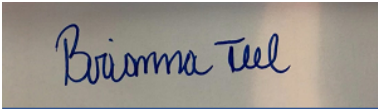
Eurofins Carlsbad

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



Generated
8/7/2025 7:59:05 AM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-8571-1
SDG: Lea County, NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

1

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3

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13

14

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-8571-1

Job ID: 890-8571-1

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Job Narrative 890-8571-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 8/6/2025 8:59 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.2°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: SW-9 (890-8571-1).

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

Client Sample ID: SW-9

Lab Sample ID: 890-8571-1

Date Collected: 08/05/25 15:05

Matrix: Solid

Date Received: 08/06/25 08:59

Sample Depth: 6-10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		08/06/25 21:00	08/07/25 03:54	1
Toluene	0.0168		0.00198		mg/Kg		08/06/25 21:00	08/07/25 03:54	1
Ethylbenzene	0.00963		0.00198		mg/Kg		08/06/25 21:00	08/07/25 03:54	1
m-Xylene & p-Xylene	0.0282		0.00396		mg/Kg		08/06/25 21:00	08/07/25 03:54	1
o-Xylene	0.00993		0.00198		mg/Kg		08/06/25 21:00	08/07/25 03:54	1
Xylenes, Total	0.0381		0.00396		mg/Kg		08/06/25 21:00	08/07/25 03:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				08/06/25 21:00	08/07/25 03:54	1
1,4-Difluorobenzene (Surr)	94		70 - 130				08/06/25 21:00	08/07/25 03:54	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0646		0.00396		mg/Kg			08/07/25 03:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			08/07/25 02:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		08/07/25 07:32	08/07/25 02:28	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		08/07/25 07:32	08/07/25 02:28	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/07/25 07:32	08/07/25 02:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				08/07/25 07:32	08/07/25 02:28	1
o-Terphenyl	101		70 - 130				08/07/25 07:32	08/07/25 02:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.5		10.1		mg/Kg			08/07/25 03:24	1

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Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8571-1	SW-9	109	94
LCS 880-115979/1-A	Lab Control Sample	96	101
LCSD 880-115979/2-A	Lab Control Sample Dup	105	106
MB 880-115940/5-A	Method Blank	99	97
MB 880-115979/5-A	Method Blank	96	91
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8571-1	SW-9	97	101
LCS 880-116031/2-A	Lab Control Sample	121	122
LCSD 880-116031/3-A	Lab Control Sample Dup	120	121
MB 880-116031/1-A	Method Blank	108	121
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-115940/5-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/06/25 09:03	08/06/25 11:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	08/06/25 09:03	08/06/25 11:36	1
1,4-Difluorobenzene (Surr)	97		70 - 130	08/06/25 09:03	08/06/25 11:36	1

Lab Sample ID: MB 880-115979/5-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/06/25 11:26	08/06/25 22:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	08/06/25 11:26	08/06/25 22:34	1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/06/25 11:26	08/06/25 22:34	1

Lab Sample ID: LCS 880-115979/1-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 115979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09652		mg/Kg		97	70 - 130
Toluene	0.100	0.09198		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.1046		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2076		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1044		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-115979/2-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 115979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1007		mg/Kg		101	70 - 130	4	35

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-115979/2-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 115979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Toluene	0.100	0.09732		mg/Kg		97	70 - 130	6		35
Ethylbenzene	0.100	0.1105		mg/Kg		110	70 - 130	5		35
m-Xylene & p-Xylene	0.200	0.2210		mg/Kg		110	70 - 130	6		35
o-Xylene	0.100	0.1112		mg/Kg		111	70 - 130	6		35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-116031/1-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 116031

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/06/25 23:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/06/25 23:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/06/25 23:16	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	108		70 - 130	08/07/25 07:32	08/06/25 23:16	1
o-Terphenyl	121		70 - 130	08/07/25 07:32	08/06/25 23:16	1

Lab Sample ID: LCS 880-116031/2-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 116031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1038		mg/Kg		104	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1129		mg/Kg		113	70 - 130	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	121		70 - 130
o-Terphenyl	122		70 - 130

Lab Sample ID: LCSD 880-116031/3-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 116031

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	1030		mg/Kg		103	70 - 130	1		20
Diesel Range Organics (Over C10-C28)	1000	1084		mg/Kg		108	70 - 130	4		20

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-116031/3-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 116031

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	121		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-116013/1-A

Matrix: Solid

Analysis Batch: 116027

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<10.0	U	10.0		mg/Kg			08/06/25 23:50		1

Lab Sample ID: LCS 880-116013/2-A

Matrix: Solid

Analysis Batch: 116027

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	250	249.6		mg/Kg		100	90 - 110			

Lab Sample ID: LCSD 880-116013/3-A

Matrix: Solid

Analysis Batch: 116027

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

				Spike	LCSD	LCSD					%Rec	RPD
Analyte				Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride				250	257.0		mg/Kg		103	90 - 110	3	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 115927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8571-1	SW-9	Total/NA	Solid	8021B	115979
MB 880-115940/5-A	Method Blank	Total/NA	Solid	8021B	115940
MB 880-115979/5-A	Method Blank	Total/NA	Solid	8021B	115979
LCS 880-115979/1-A	Lab Control Sample	Total/NA	Solid	8021B	115979
LCSD 880-115979/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	115979

Prep Batch: 115940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-115940/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 115979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8571-1	SW-9	Total/NA	Solid	5035	
MB 880-115979/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-115979/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-115979/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 116044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8571-1	SW-9	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 115935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8571-1	SW-9	Total/NA	Solid	8015B NM	116031
MB 880-116031/1-A	Method Blank	Total/NA	Solid	8015B NM	116031
LCS 880-116031/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	116031
LCSD 880-116031/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	116031

Prep Batch: 116031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8571-1	SW-9	Total/NA	Solid	8015NM Prep	
MB 880-116031/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-116031/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-116031/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 116049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8571-1	SW-9	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 116013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8571-1	SW-9	Soluble	Solid	DI Leach	
MB 880-116013/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-116013/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-116013/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

HPLC/IC

Analysis Batch: 116027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8571-1	SW-9	Soluble	Solid	300.0	116013
MB 880-116013/1-A	Method Blank	Soluble	Solid	300.0	116013
LCS 880-116013/2-A	Lab Control Sample	Soluble	Solid	300.0	116013
LCSD 880-116013/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	116013

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Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

Client Sample ID: SW-9

Date Collected: 08/05/25 15:05

Date Received: 08/06/25 08:59

Lab Sample ID: 890-8571-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	115979	08/06/25 21:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	115927	08/07/25 03:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			116044	08/07/25 03:54	SA	EET MID
Total/NA	Analysis	8015 NM		1			116049	08/07/25 02:28	SA	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	115935	08/07/25 02:28	TKC	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	116031	08/07/25 07:32	EL	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	116013	08/06/25 14:50	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	116027	08/07/25 03:24	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8571-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8571-1	SW-9	Solid	08/05/25 15:05	08/06/25 08:59	6-10

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- 2
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Environment Testing
Xenco

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

Chain of Custody

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Gilbert Moreno	Bill to: (if different)	
Company Name:	Earth Systems R&R	Company Name:	Earth Systems
Address:	1910 Resource Ct.	Address:	
City, State ZIP:	Carlsbad, NM, 88220	City, State ZIP:	
Phone:	832-541-7719	Email:	gmoreno@earthsys.net

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	Mulva	Turn Around	<input type="checkbox"/> Routine <input checked="" type="checkbox"/> Rush	Pres. Code		ANALYSIS REQUEST		Preservative Codes
Project Number:	210							Ion: NO DI Water: H ₂ O
Project Location:	Lea County, NM	Due Date:	24 Rush TAT					ool: Cool Me
Sampler's Name:	Santiago Giron	TAT starts the day received by the lab, if received by 4:30pm						CL: HC HNO ₃ : HN
CC/WO #:								SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						PO ₄ : HP
Samples Received Inact:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	Thermometer ID:	744007					NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	Correction Factor:	-0.2					Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	Temperature Reading:	-0.2					Zn Acetate+NaOH: Zn
Total Containers:		Corrected Temperature:	-0.2					NaOH+Ascorbic Acid: SAPC
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth (feet)	Grab/Comp	# of Cont	Parameters	Sample Comments
SW-9	S	8.5.25	15.05	6-10	Comp	1	TPH -NM Chloride-NM BTEx-NM Hold 24 Hr Rush	Incident Number nAPP2509160854



890-8571 Chain of Custody

Total 200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn			
Circle Method(s) and Metal(s) to be analyzed		Hg 1631 / 245.1 / 7470 / 7471						

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$35.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Gilbert Moreno</i>	<i>Gilbert Moreno</i>	8/6 8:59			

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8571-1

SDG Number: Lea County, NM

Login Number: 8571

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

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.	N/A	
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: Earth Systems Response and Restoration

Job Number: 890-8571-1

SDG Number: Lea County, NM

Login Number: 8571

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 08/07/25 07:30 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Moreno
Earth Systems Response and Restoration
4115 South County Road 1297
Odessa, Texas 79765
Generated 8/7/2025 7:59:24 AM

JOB DESCRIPTION

Mulva
Lea County, NM

JOB NUMBER

890-8572-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



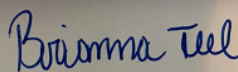
Eurofins Carlsbad

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



Generated
8/7/2025 7:59:24 AM

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

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Laboratory Job ID: 890-8572-1
SDG: Lea County,NM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Surrogate Summary	7
QC Sample Results	8
QC Association Summary	11
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17
Receipt Checklists	18

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Definitions/Glossary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Earth Systems Response and Restoration
Project: Mulva

Job ID: 890-8572-1

Job ID: 890-8572-1

Eurofins Carlsbad

Job Narrative 890-8572-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 8/6/2025 9:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.2°C.

Receipt Exceptions

The following sample was received and analyzed from an unpreserved bulk soil jar: C-3 (890-8572-1).

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

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Client Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

Client Sample ID: C-3

Lab Sample ID: 890-8572-1

Date Collected: 08/05/25 15:00

Matrix: Solid

Date Received: 08/06/25 09:55

Sample Depth: 10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		08/06/25 21:00	08/07/25 04:15	1
Toluene	0.00232		0.00198		mg/Kg		08/06/25 21:00	08/07/25 04:15	1
Ethylbenzene	0.00288		0.00198		mg/Kg		08/06/25 21:00	08/07/25 04:15	1
m-Xylene & p-Xylene	0.00834		0.00397		mg/Kg		08/06/25 21:00	08/07/25 04:15	1
o-Xylene	0.00425		0.00198		mg/Kg		08/06/25 21:00	08/07/25 04:15	1
Xylenes, Total	0.0126		0.00397		mg/Kg		08/06/25 21:00	08/07/25 04:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130				08/06/25 21:00	08/07/25 04:15	1
1,4-Difluorobenzene (Surr)	92		70 - 130				08/06/25 21:00	08/07/25 04:15	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0178		0.00397		mg/Kg			08/07/25 04:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	79.4		50.0		mg/Kg			08/07/25 02:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/07/25 02:44	1
Diesel Range Organics (Over C10-C28)	79.4		50.0		mg/Kg		08/07/25 07:32	08/07/25 02:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/07/25 02:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				08/07/25 07:32	08/07/25 02:44	1
o-Terphenyl	118		70 - 130				08/07/25 07:32	08/07/25 02:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	246		10.1		mg/Kg			08/07/25 03:32	1

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Surrogate Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8572-1	C-3	107	92
LCS 880-115979/1-A	Lab Control Sample	96	101
LCSD 880-115979/2-A	Lab Control Sample Dup	105	106
MB 880-115940/5-A	Method Blank	99	97
MB 880-115979/5-A	Method Blank	96	91
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8572-1	C-3	108	118
LCS 880-116031/2-A	Lab Control Sample	121	122
LCSD 880-116031/3-A	Lab Control Sample Dup	120	121
MB 880-116031/1-A	Method Blank	108	121
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-115940/5-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/06/25 09:03	08/06/25 11:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/06/25 09:03	08/06/25 11:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	08/06/25 09:03	08/06/25 11:36	1
1,4-Difluorobenzene (Surr)	97		70 - 130	08/06/25 09:03	08/06/25 11:36	1

Lab Sample ID: MB 880-115979/5-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 115979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/06/25 11:26	08/06/25 22:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/06/25 11:26	08/06/25 22:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	08/06/25 11:26	08/06/25 22:34	1
1,4-Difluorobenzene (Surr)	91		70 - 130	08/06/25 11:26	08/06/25 22:34	1

Lab Sample ID: LCS 880-115979/1-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 115979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09652		mg/Kg		97	70 - 130
Toluene	0.100	0.09198		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.1046		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2076		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1044		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-115979/2-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 115979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1007		mg/Kg		101	70 - 130	4	35

Eurofins Carlsbad

QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

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

Lab Sample ID: LCSD 880-115979/2-A

Matrix: Solid

Analysis Batch: 115927

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 115979

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Toluene	0.100	0.09732		mg/Kg		97	70 - 130	6		35
Ethylbenzene	0.100	0.1105		mg/Kg		110	70 - 130	5		35
m-Xylene & p-Xylene	0.200	0.2210		mg/Kg		110	70 - 130	6		35
o-Xylene	0.100	0.1112		mg/Kg		111	70 - 130	6		35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-116031/1-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 116031

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/06/25 23:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/06/25 23:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/07/25 07:32	08/06/25 23:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	08/07/25 07:32	08/06/25 23:16	1
o-Terphenyl	121		70 - 130	08/07/25 07:32	08/06/25 23:16	1

Lab Sample ID: LCS 880-116031/2-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 116031

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	1038		mg/Kg		104	70 - 130			
Diesel Range Organics (Over C10-C28)	1000	1129		mg/Kg		113	70 - 130			

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	122		70 - 130

Lab Sample ID: LCSD 880-116031/3-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 116031

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Gasoline Range Organics (GRO)-C6-C10	1000	1030		mg/Kg		103	70 - 130	1		20
Diesel Range Organics (Over C10-C28)	1000	1084		mg/Kg		108	70 - 130	4		20

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QC Sample Results

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

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

Lab Sample ID: LCSD 880-116031/3-A

Matrix: Solid

Analysis Batch: 115935

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 116031

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	121		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-116013/1-A

Matrix: Solid

Analysis Batch: 116027

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<10.0	U	10.0		mg/Kg			08/06/25 23:50		1

Lab Sample ID: LCS 880-116013/2-A

Matrix: Solid

Analysis Batch: 116027

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	250	249.6		mg/Kg		100	90 - 110			

Lab Sample ID: LCSD 880-116013/3-A

Matrix: Solid

Analysis Batch: 116027

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

				Spike	LCSD	LCSD					%Rec	RPD
Analyte				Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limits
Chloride				250	257.0		mg/Kg		103	90 - 110	3	20

QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

GC VOA

Analysis Batch: 115927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8572-1	C-3	Total/NA	Solid	8021B	115979
MB 880-115940/5-A	Method Blank	Total/NA	Solid	8021B	115940
MB 880-115979/5-A	Method Blank	Total/NA	Solid	8021B	115979
LCS 880-115979/1-A	Lab Control Sample	Total/NA	Solid	8021B	115979
LCSD 880-115979/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	115979

Prep Batch: 115940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-115940/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 115979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8572-1	C-3	Total/NA	Solid	5035	
MB 880-115979/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-115979/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-115979/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 116045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8572-1	C-3	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 115935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8572-1	C-3	Total/NA	Solid	8015B NM	116031
MB 880-116031/1-A	Method Blank	Total/NA	Solid	8015B NM	116031
LCS 880-116031/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	116031
LCSD 880-116031/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	116031

Prep Batch: 116031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8572-1	C-3	Total/NA	Solid	8015NM Prep	
MB 880-116031/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-116031/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-116031/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 116050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8572-1	C-3	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 116013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8572-1	C-3	Soluble	Solid	DI Leach	
MB 880-116013/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-116013/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-116013/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

HPLC/IC

Analysis Batch: 116027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8572-1	C-3	Soluble	Solid	300.0	116013
MB 880-116013/1-A	Method Blank	Soluble	Solid	300.0	116013
LCS 880-116013/2-A	Lab Control Sample	Soluble	Solid	300.0	116013
LCSD 880-116013/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	116013

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

Lab Chronicle

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

Client Sample ID: C-3
Date Collected: 08/05/25 15:00
Date Received: 08/06/25 09:55

Lab Sample ID: 890-8572-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	115979	08/06/25 21:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	115927	08/07/25 04:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			116045	08/07/25 04:15	SA	EET MID
Total/NA	Analysis	8015 NM		1			116050	08/07/25 02:44	SA	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	115935	08/07/25 02:44	TKC	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	116031	08/07/25 07:32	EL	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	116013	08/06/25 14:50	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	116027	08/07/25 03:32	CS	EET MID

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

Accreditation/Certification Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

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

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Earth Systems Response and Restoration
Project/Site: Mulva

Job ID: 890-8572-1
SDG: Lea County,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-8572-1	C-3	Solid	08/05/25 15:00	08/06/25 09:55	10

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



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:

Page 1 of 1
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Work Order Comments			
Program:	UST/PST <input type="checkbox"/>	PRP <input type="checkbox"/>	Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:			
Reporting:	Level II <input type="checkbox"/>	Level III <input type="checkbox"/>	PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/>	ADAPT <input type="checkbox"/>	Other: <input type="text"/>

[illegible]

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document entails relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$55.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
0 <i>[Signature]</i>	<i>[Signature]</i>	8/6/859	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8572-1

SDG Number: Lea County,NM

Login Number: 8572

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Earth Systems Response and Restoration

Job Number: 890-8572-1

SDG Number: Lea County,NM

Login Number: 8572

List Number: 2

Creator: Laing, Edmundo

List Source: Eurofins Midland

List Creation: 08/07/25 07:30 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 510783

QUESTIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 510783
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2509160854
Incident Name	NAPP2509160854 MULVA @ N-27-24S-35E 832S 2575W
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received

Location of Release Source*Please answer all the questions in this group.*

Site Name	MULVA
Date Release Discovered	03/21/2025
Surface Owner	Private

Incident Details*Please answer all the questions in this group.*

Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release*Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*

Crude Oil Released (bbls) Details	Cause: Corrosion Pipeline (Any) Crude Oil Released: 19 BBL Recovered: 0 BBL Lost: 19 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 510783

QUESTIONS (continued)

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 510783
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	<i>Not answered.</i>

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: Travis Ray Title: Senior Environmental Specialist Email: travis.ray@scmid.com Date: 09/30/2025
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QUESTIONS, Page 3

Action 510783

QUESTIONS (continued)

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 510783
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1000 (ft.) and ½ (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	450
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	37740
GRO+DRO (EPA SW-846 Method 8015M)	37740
BTEX (EPA SW-846 Method 8021B or 8260B)	698
Benzene (EPA SW-846 Method 8021B or 8260B)	44.2
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	06/30/2025
On what date will (or did) the final sampling or liner inspection occur	08/05/2025
On what date will (or was) the remediation complete(d)	09/04/2025
What is the estimated surface area (in square feet) that will be reclaimed	1600
What is the estimated volume (in cubic yards) that will be reclaimed	720
What is the estimated surface area (in square feet) that will be remediated	1600
What is the estimated volume (in cubic yards) that will be remediated	720
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 4

Action 510783

QUESTIONS (continued)

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 510783
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fJEG1635837366 OWL LANDFILL JAL
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Travis Ray Title: Senior Environmental Specialist Email: travis.ray@scmid.com Date: 09/30/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 510783

QUESTIONS (continued)

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 510783
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 510783

QUESTIONS (continued)

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 510783
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	491495
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/05/2025
What was the (estimated) number of samples that were to be gathered	2
What was the sampling surface area in square feet	400

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	1600
What was the total volume (cubic yards) remediated	720
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	1600
What was the total volume (in cubic yards) reclaimed	720
Summarize any additional remediation activities not included by answers (above)	No additional remediation activities required. Lab analytical results for all final confirmation sampling meet Site Closure Criteria and reclamation standards. Area will be reclaimed when facility is deconstructed.
<i>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 (in .pdf format) 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.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: Travis Ray Title: Senior Environmental Specialist Email: travis.ray@scmid.com Date: 09/30/2025

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QUESTIONS, Page 7

Action 510783

QUESTIONS (continued)

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 510783
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 510783

CONDITIONS

Operator: SCM Operations, LLC 5775 N Sam Houston Pkwy W Houston, TX 77086	OGRID: 330368
	Action Number: 510783
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	9/30/2025