

SITE INFORMATION

Closure Report Marquardt 1 Penn Fed 1 (04.04.2024) Incident ID: NAPP2409950483 Eddy County, New Mexico Unit I Sec 01 T25S R26E 32.15875°, -104.24352°

Point of Release:

A third-party contractor was performing work in the area to decommission surface poly line and severed an active Blackbuck Resources line instead of their target line. Release Date: 04.04.2024 Volume Released: 100 Barrels of Produced Water Volume Recovered: 0 Barrels of Produced Water



Prepared for: Blackbuck Resources 3300 North A Street Building 5 - Suite 120 Midland, Texas 79705

Prepared by: Carmona Resources, LLC 310 West Wall Street Suite 500 Midland, Texas 79701

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June 13, 2024

Mike Bratcher District Supervisor Oil Conservation Division, District 2 811 S. First Street Artesia, New Mexico 88210

Re: Closure Report Marquardt 1 Penn Fed 1 (04.04.2024) Incident ID: NAPP2409950483 Blackbuck Resources Site Location: Unit I, S01, T25S, R26E (Lat 32.15875°, Long -104.24352°) Eddy County, New Mexico

Mr. Bratcher:

On behalf of Blackbuck Resources (Blackbuck), Carmona Resources, LLC has prepared this letter to document site activities for the Marquardt 1 Penn Fed 1. The site is located at 32.15875°, -104.24352° within Unit I, S01, T25S, R26E, in Eddy County, New Mexico (Figures 1 and 2).

1.0 Site Information and Background

Based on the Notice of Release obtained from the New Mexico Oil Conservation Division (NMOCD), the leak was discovered on April 4, 2024, caused by a third-party contractor performing work in the area to decommission a surface polyline and severed an active Blackbuck Resources line instead of their target line. It resulted in approximately one hundred (100) barrels of produced water with zero (0) barrels of produced water recovered. The impacted area is located along the lease road and into a nearby pipeline right-of-way (ROW). Refer to Figure 3 for a spill overview. The Notice of Release form is attached in Appendix C.

2.0 Site Characterization and Groundwater

The site is located within a high karst area. Based on a review of the New Mexico Office of State Engineers and USGS databases, no known water sources are within a 0.50-mile radius of the location. The nearest identified groundwater determination bore is approximately 0.91 miles Southeast of the site in S6, T22S, R27E and was drilled in 2023. The groundwater determination bore had no signs of water at a depth of 60 feet below the ground surface (ft bgs). A copy of the associated Summary Report is attached in Appendix D.

3.0 NMAC Regulatory Criteria

Per the NMOCD regulatory criteria established in 19.15.29.12 NMAC, the following criteria were utilized in assessing the site.

- Benzene: 10 milligrams per kilogram (mg/kg).
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg.
- TPH: 100 mg/kg (GRO + DRO + MRO).
- Chloride: 600 mg/kg.



4.0 Remediation Activities

On May 13, 2024, Hydro-vac crews began uncovering buried Cimarex Energy Co (Cimarex) and Blackbuck Resources pipelines. Once all buried pipelines were uncovered and depths identified, both Cimarex and Blackbuck approved the beginning of excavation efforts.

Between May 23, 2024, and June 5, 2024, Excavation and Hydro-vac crews worked together to remove all impacted soils onsite to accommodate active oilfield operations and vehicle traffic in the area. Carmona Resources personnel were onsite to supervise the remediation activities, collect confirmation samples, and document backfill activities. Before collecting composite confirmation samples, the NMOCD division office was notified via web portal on May 21, 2024, May 22, 2024, May 29, 2024, and May 29, 2024, per Subsection D of 19.15.29.12 NMAC. See Appendix C. A total of eighty-seven (87) confirmation floor samples (CS-1 through CS-87) and sixty-nine (69) sidewall samples (SW-1 through SW-69) were collected every 200 square feet to ensure the proper removal of the contaminated soils. All collected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA Method 4500. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. The excavation depths and confirmation sample locations are shown in Figure 4A-4E.

All final confirmation samples were below the reclamation and regulatory requirements for TPH, BTEX, and chloride, except for CS-70, CS-71 and SW-25 which showed elevated chloride levels ranging from 704 mg/kg to 2,680 mg/kg. SW-25 was excavated another 1' to remove impacted material. The area of CS-70 and CS-71 were scraped an additional 0.25' to remove impacted material. Refer to Table 1.

Once the remediation activities were completed, the excavated areas were backfilled with clean material to surface grade. Approximately 17,320 square feet and 1,300 cubic yards of material were excavated and transported offsite for proper disposal.

Backfill Material

Backfill material was sourced locally from Mr. Fred Beard. The backfill pit is located at 32.161928, -104.316363. Two (2) composite stockpile samples (Stockpile Composite #1 & Stockpile Composite #2) were collected. They were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA Method 4500. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix E. Backfill Pit location is shown in Figure 5.

5.0 Conclusions

Based on the remediation results and the analytical data, no further actions are required at the site. The final C-141 is attached, and Cimarex formally requests the spill's closure. If you have any questions regarding this report or need additional information, please contact us at 432-813-1992.

Sincerely,

Carmona Resources, LLC

Ashton Thielke Sr. Project Manager

Timel Milus

Miranda Milwee Project Manager























APPENDIX A



TPH (mg/kg) Pensona Teluana Ethlukanzana Vulana Tetal PTEV Ch												
Sample ID	Date	Depth (ft)	GRO	DRO	MRO	Total	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
CS-1	5/24/2024	3.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
CS-2	5/24/2024	3.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
CS-3	5/24/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	368
CS-4	5/24/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	384
CS-5	5/24/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	208
CS-6	5/24/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	256
CS-7	5/24/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	176
CS-8	5/24/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	416
CS-9	5/24/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	400
CS-10	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	448
CS-11	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
CS-12	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	240
CS-13	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
CS-14	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	416
CS-15	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	96.0
CS-16	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
CS-17	5/28/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	144
CS-18	5/28/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	288
CS-19	5/28/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	448
CS-20	5/28/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	400
CS-21	5/30/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	128
CS-22	5/30/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
CS-23	5/30/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	96.0
CS-24	5/30/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
CS-25	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	224
CS-26	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	464
	ry Criteria ^A Analyzed					100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH - Total Petroleum Hydrocarbons

ft - feet (CS) Confirmation Floor Sample

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TPH (mg/kg) TPH (mg/kg) Total BTEX Chlori												
Sample ID	Date	Depth (ft)	GRO	DRO	MRO	Total	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
CS-27	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
CS-28	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	128
CS-29	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
CS-30	5/30/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	16.0
CS-31	5/30/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	32.0
CS-32	6/3/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	16.0
CS-33	6/3/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
CS-34	6/3/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	192
CS-35	6/3/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	176
CS-36	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	304
CS-37	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	368
CS-38	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
CS-39	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	304
CS-40	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	16.0
CS-41	6/3/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	80.0
CS-42	6/3/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
CS-43	6/3/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
CS-44	6/4/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
CS-45	6/4/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	368
CS-46	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	464
CS-47	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	384
CS-48	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	96.0
CS-49	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	96.0
CS-50	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	192
CS-51	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
CS-52	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
	tory Criteria ^A ot Analyzed					100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH - Total Petroleum Hydrocarbons

ft - feet

(CS) Confirmation Floor Sample

Sample ID	Date	Depth (ft)		TPH	(mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride
CS-53	6/4/2024	0.5'	GRO <10.0	DRO <10.0	MRO <10.0	Total <10.0	(mg/kg) <0.050	(mg/kg) <0.050	(mg/kg) <0.050	(mg/kg) <0.150	(mg/kg) <0.150	(mg/kg) 96.0
CS-54	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	80.0
CS-55	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
CS-56	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	464
CS-57	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	< 0.050	< 0.050	<0.050	<0.150	<0.150	480
CS-58	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	< 0.050	< 0.050	<0.050	<0.150	<0.150	192
CS-59	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	< 0.050	< 0.050	<0.050	<0.150	<0.150	128
CS-60	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	< 0.050	< 0.050	<0.050	<0.150	<0.150	48.0
CS-61	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	< 0.050	< 0.050	<0.050	<0.150	<0.150	128
CS-62	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
CS-63	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	32.0
CS-64	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	48.0
CS-65	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	80.0
CS-66	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	32.0
CS-67	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	48.0
CS-68	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	48.0
CS-69	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	400
CS-70	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	752
	6/7/2024	0.5-0.75'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
CS-71	6/5/2024	0.5'	<10.0 <10.0	<10.0	<10.0 <10.0	<10.0	<0.050 <0.050	<0.050 <0.050	<0.050	<0.150	<0.300 <0.300	704 112
CS-72	6/7/2024 6/5/2024	0.5-0.75'	<10.0	<10.0 <10.0	<10.0	<10.0	<0.050	< 0.050	<0.050	<0.150 <0.150	<0.300	496
CS-72	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	< 0.050	<0.050	<0.150	<0.300	80.0
CS-74	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
CS-75	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	< 0.050	<0.050	<0.150	<0.300	64.0
CS-76	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
CS-77	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
Regulate	ory Criteria ^A t Analyzed					100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH - Total Petroleum Hydrocarbons

ft - feet (CS) Confirmation Floor Sample **(** - -

Removed

		5 4 40		TPH	(mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride
Sample ID	Date	Depth (ft)	GRO	DRO	MRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
CS-78	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
CS-79	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
CS-80	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
CS-81	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
CS-82	6/5/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
CS-83	6/5/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	64.0
CS-84	6/5/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	64.0
CS-85	6/5/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
CS-86	6/5/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	96.0
CS-87	6/5/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
Regulato	ory Criteria ^A					100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH - Total Petroleum Hydrocarbons

ft - feet (CS) Confirmation Floor Sample

TPH (mg/kg)												
Sample ID	Date	Depth (ft)	GRO	DRO	MRO	Total	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
SW-1	5/24/2024	3.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	128
SW-2	5/24/2024	3.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
SW-3	5/24/2024	3.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	240
SW-4	5/24/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	320
SW-5	5/24/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	416
SW-6	5/24/2024	1.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	176
SW-7	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	176
SW-8	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	80.0
SW-9	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	208
SW-10	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
SW-11	5/24/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	144
SW-12	5/28/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
SW-13	5/28/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
SW-14	5/28/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	304
SW-15	5/28/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	144
SW-16	5/30/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	224
SW-17	5/30/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	224
SW-18	5/30/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	144
SW-19	5/30/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	80.0
SW-20	5/30/2024	1.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	336
SW-21	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
SW-22	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	528
SW-23	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	128
SW-24	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	192
SW-25	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	2,680
300-20	6/5/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	48.0
SW-26	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	96.0
	ry Criteria ^A Analyzed					100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram TPH - Total Petroleum Hydrocarbons

ft - feet (SW) Confirmation Sidewall Sample Removed

TPH (mg/kg) Benzene Toluene Ethlybenzene Xylene Total BTEX Chlorid												
Sample ID	Date	Depth (ft)	GRO	DRO	(mg/kg) MRO	Total	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
SW-27	5/30/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
SW-28	5/30/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
SW-29	5/30/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	32.0
SW-30	5/30/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	16.0
SW-31	6/3/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	304
SW-32	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	240
SW-33	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	304
SW-34	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	112
SW-35	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	96.0
SW-36	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	176
SW-37	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	80.0
SW-38	6/3/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	160
SW-39	6/3/2024	2.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	96.0
SW-40	6/3/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	144
SW-41	6/4/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	208
SW-42	6/4/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	384
SW-43	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
SW-44	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
SW-45	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
SW-46	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
SW-47	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	432
SW-48	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	240
SW-49	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	224
SW-50	6/4/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	128
SW-51	6/5/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
SW-52	6/5/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	304
	ory Criteria ^A ot Analyzed					100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH - Total Petroleum Hydrocarbons

ft - feet

(SW) Confirmation Sidewall Sample Removed

Sample ID Date Dept (ft) GRO MRO Total (mg/kg)													
Mark GRO DRO MRO Total MB/M9 (MB/M9)	Sample ID	Date	Depth (ft)		ТРН	(mg/kg)							Chloride
SW-54 6/5/2024 1.5' <10.0													(mg/kg)
SW-55 6/5/2024 1.5' <10.0 <10.0 <10.0 <10.0 <0.050 <0.050 <0.050 <0.150 <0.300 <0.300 SW-56 6/5/2024 0.5' <10.0	SW-53	6/5/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
SW-56 6/5/2024 0.5' <10.0 <10.0 <10.0 <10.0 <0.050 <0.050 <0.050 <0.150 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300 <0.300	SW-54	6/5/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
SW-57 6/5/2024 0.5' <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <	SW-55	6/5/2024	1.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
SW-58 6/5/2024 0.5' <10.0 <10.0 <10.0 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <td>SW-56</td> <td>6/5/2024</td> <td>0.5'</td> <td><10.0</td> <td><10.0</td> <td><10.0</td> <td><10.0</td> <td><0.050</td> <td><0.050</td> <td><0.050</td> <td><0.150</td> <td><0.300</td> <td>80.0</td>	SW-56	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	80.0
SW-59 6/5/2024 0.5' <10.0 <10.0 <10.0 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <td>SW-57</td> <td>6/5/2024</td> <td>0.5'</td> <td><10.0</td> <td><10.0</td> <td><10.0</td> <td><10.0</td> <td><0.050</td> <td><0.050</td> <td><0.050</td> <td><0.150</td> <td><0.300</td> <td>96.0</td>	SW-57	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	96.0
SW-60 6/5/2024 0.5' <10.0 <10.0 <10.0 <10.0 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050	SW-58	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	176
SW-61 6/5/2024 0.5' <10.0 <10.0 <10.0 <10.0 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050	SW-59	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
SW-62 6/5/2024 0.5' <10.0 <10.0 <10.0 <10.0 <10.0 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <	SW-60	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
SW-63 6/5/2024 0.5' <10.0	SW-61	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
SW-64 6/5/2024 2.0' <10.0	SW-62	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
SW-65 6/5/2024 2.0' <10.0	SW-63	6/5/2024	0.5'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
SW-66 6/5/2024 2.0' <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <	SW-64	6/5/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	144
SW-67 6/5/2024 2.0' <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <	SW-65	6/5/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	128
SW-68 6/5/2024 1.0' <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <10.0 <	SW-66	6/5/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	96.0
SW-69 6/5/2024 2.0' <10.0 <10.0 <10.0 <10.0 <0.050 <0.050 <0.150 <0.300	SW-67	6/5/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	64.0
	SW-68	6/5/2024	1.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	96.0
	SW-69	6/5/2024	2.0'	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	160
Regulatory Criteria ^A 100 mg/kg 10 mg/kg - - 50 mg/kg 600 (-) Not Analyzed - - 50 mg/kg 600 - - 50 mg/kg 600							100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH - Total Petroleum Hydrocarbons

ft - feet

(SW) Confirmation Sidewall Sample

		5 4 40	TPH (mg/kg)			Benzene Tolu	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride	
Sample ID	Date	Depth (ft)	GRO	DRO	MRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Stockpile Composite #1	6/4/2024	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	48.0
Stockpile Composite #2	6/4/2024	-	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.150	64.0
Regulator	y Criteria ^A					100 mg/kg	10 mg/kg	-	-	-	50 mg/kg	600 mg/kg

(-) Not Analyzed

^A – Table 1 - 19.15.29 NMAC

mg/kg - milligram per kilogram

TPH - Total Petroleum Hydrocarbons

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APPENDIX B



Blackbuck New Mexico LLC



Photograph No. 3

- Facility: Marquardt 1 Penn Fed 1
- County: Eddy County, New Mexico

Description:

View Southeast, area of CS-10 through CS-16.



Blackbuck New Mexico LLC

Photograph N. ↓ Marquardt 1 Penn Fed 1 Facility: Marquardt 1 Penn Fed 1 County: Eddy County, New Mexico Description: View North, area of CS-10 through CS-16.



- Facility: Marquardt 1 Penn Fed 1
- County: Eddy County, New Mexico

Description:

View South, area of CS-17 through CS-20.



Photograph No. 6

Facility: Marquardt 1 Penn Fed 1

County: Eddy County, New Mexico

Description:

View Northwest, area of CS-20 through CS-22.





Blackbuck New Mexico LLC

Photograph No. 7

Facility: Marquardt 1 Penn Fed 1

County: Eddy County, New Mexico

Description:

View North, area of CS-24 through CS-26.



Photograph No. 8

- Facility:Marquardt 1 Penn Fed 1
- County: Eddy County, New Mexico

Description:

View S, area of CS-25 and CS-26.



Photograph No. 9

- Facility: Marquardt 1 Penn Fed 1
- County: Eddy County, New Mexico

Description:

View West, area of CS-27 through CS-29.



Blackbuck New Mexico LLC

Photograph No. 10

Facility: Marquardt 1 Penn Fed 1

County: Eddy County, New Mexico

Description:

View West, area of CS-30 through CS-35.



Photograph No. 11

Facility:Marquardt 1 Penn Fed 1

County: Eddy County, New Mexico

Description:

View Southeast, area of CS-30 through CS-35.



Photograph No. 12

Facility: Marquardt 1 Penn Fed 1

County: Eddy County, New Mexico

Description:

View East, area of CS-36 through CS-40.





Blackbuck New Mexico LLC



Photograph No. 14

Facility:	Marquardt 1 Penn Fed 1
-----------	------------------------

County: Eddy County, New Mexico

Description:

View North, area of CS-44 and CS-45.



Photograph No. 15

- Facility: Marquardt 1 Penn Fed 1
- County: Eddy County, New Mexico

Description:

View Southwest, area of CS-46 through CS-69.



Blackbuck New Mexico LLC

Photograph	n No. 16	W NW N NE 240 270 300 330 0 30 60 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 •
Facility:	Marquardt 1 Penn Fed 1	© 333°NW (T) LAT: 32.158476 LON: -104.243360 ±13ft ▲ 3338ft
County:	Eddy County, New Mexico	the har all muse the
Description: View Northwe	est, area of CS-45 through CS-69.	05 dbn 2024 08 47 13
Photograph	ı No. 17	SE S S 240 270 300
Facility:	Marquardt 1 Penn Fed 1	© 215°SW (T) LAT: 32.158638 LON: -104.243581 ±13ft ▲ 3336ft
County:	Eddy County, New Mexico	
Description: View Southwe	est, area of CS-56 through CS-69.	05 Jun 2024, 08:53.11
Photograph	n No. 18	E SE S SW W
Facility:	Marquardt 1 Penn Fed 1	⁹⁰ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
County:	Eddy County, New Mexico	t to the t
Description: View South, a CS-71.	area CS-46 through CS-56, CS-70, and	D5 Jun 2024 - 08:53:31

Blackbuck New Mexico LLC



Photograph No. 20

County: Eddy County, New Mexico

Description:

View Southeast, area of CS-73 through CS-81.



Photograph No. 21

Facility: Marquardt 1 Penn Fed 1

County: Eddy County, New Mexico

Description:

View Southwest, area of CS-73 through CS-76 and CS-78 through CS-81.



Blackbuck New Mexico LLC

Photograph No. 22

Facility: Marquardt 1 Penn Fed 1

County: Eddy County, New Mexico

Description:

View North, area of CS-82 through CS-87.



Photograph No. 23

Facility: Marquardt 1 Penn Fed 1

County: Eddy County, New Mexico

Description:

View South, area of CS-82 through CS-87.



SE





SW

APPENDIX C



District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

the environment

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Operator:		OGRID:
Blackbuck New Mexico LLC		373619
3200 Southwest Freeway		Action Number:
Houston, TX 77027		331077
		Action Type:
		[NOTIFY] Notification Of Release (NOR)
QUESTIONS		
Location of Release Source		
Please answer all the questions in this group.	-	
Site Name	Marquardt 1 Penn Fed 1	
Date Release Discovered	04/04/2024	
Surface Owner	Federal	
Incident Details		
Please answer all the questions in this group.		
Incident Type	Produced Water 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	

Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	Νο	
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	Not answered.	
Produced Water Released (bbls) Details	Cause: Human Error Pipeline (Any) Produced Water Released: 100 BBL Recovered: 0 BBL Lost: 100 BBL.	
Is the concentration of chloride in the produced water >10,000 mg/l	Yes	
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.	

Yes

Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)

Has this release substantially damaged or will it substantially damage property or

This release was caused by a third party contractor, (Tactical Water Group) severing a produced water pipeline, while performing work for another Operator, (Select Energy Services). Blackbuck Resources, nor its facilities, equipment, contractors, or personnel were the cause of this release.

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QUESTIONS

Action 331077

District I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS (continued)

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	331077
	Action Type:
	[NOTIFY] Notification Of Release (NOR)

QUESTIONS

Nature and Volume of Release (continued)		
Is this a gas only submission (i.e. only significant Mcf va	lues 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	Yes
Reasons why this would be considered a submission for release	or a notification of a major	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more; (2) an unauthorized release of a volume that: (d) substantially damages property or the environment.

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.

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a s	afety 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	Not answered.
	ion immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of ed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please prepare

QUESTIONS, Page 2

Action 331077

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

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District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

ACKNOWLEDGMENTS

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	331077
	Action Type:
	[NOTIFY] Notification Of Release (NOR)

ACKNOWLEDGMENTS

$\overline{\checkmark}$	I acknowledge that I am authorized to submit notification of a release on behalf of my operator.
M	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC 19.15.29.
	l acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", pursuant to NMAC 19.15.29.
	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.
V	I acknowledge the fact that 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.
	I acknowledge the fact that, 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.

Action 331077
811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	331077
	Action Type:
	[NOTIFY] Notification Of Release (NOR)

CONDITIONS

Created By		Condition Date
kmoser	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C- 141.	4/8/2024

Action 331077

Page 6

Oil Conservation Division

Incident ID	
District RP	
Facility ID	

Closure

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

Closure Report Attachment Checklist: Each of the following items must be included in the closure report. A scaled site and sampling diagram as described in 19.15.29.11 NMAC Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) Description of remediation activities I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete. Printed Name: _____ Title: _____ Signature: Date: Telephone: email: **OCD Only** Received by: Date: Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible

 Closure Approved by:
 Date:

 Printed Name:
 Title:

Released to Imaging: 7/2/2024 3:00:58 PM

party of compliance with any other federal, state, or local laws and/or regulations.

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District III

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District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

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Action 346420

QUESTIONS

Operator: C	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway A	Action Number:
Houston, TX 77027	346420
A	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2409950483
Incident Name	NAPP2409950483 MARQUARDT 1 PENN FED 1 @ 0
Incident Type	Produced Water Release
Incident Status	Notification Accepted

Location of Release Source

Site Name	Marquardt 1 Penn Fed 1
Date Release Discovered	04/04/2024
Surface Owner	Federal

Sampling Event General Information

Please answer all the questions in this group.		
What is the sampling surface area in square feet	18,900	
What is the estimated number of samples that will be gathered	100	
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	05/24/2024	
Time sampling will commence	09:00 AM	
Please provide any information necessary for observers to contact samplers	Gilbert Priego, (432-813-7389) Miranda Milwee, (432-813-9652)	
Please provide any information necessary for navigation to sampling site	GPS Coordinates 32.158435N, 104.243623W	

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

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District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	346420
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By Condition Condition Date 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 5/21/2024 kmoser remediation closure samples not being accepted.

CONDITIONS

Action 346420

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

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Action 346639

QUESTIONS

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	346639
ΓΓ	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2409950483
Incident Name	NAPP2409950483 MARQUARDT 1 PENN FED 1 @ 0
Incident Type	Produced Water Release
Incident Status	Notification Accepted

Location of Release Source

Site Name	Marquardt 1 Penn Fed 1
Date Release Discovered	04/04/2024
Surface Owner	Federal

Sampling Event General Information

Please answer all the questions in this group.		
What is the sampling surface area in square feet	18,900	
What is the estimated number of samples that will be gathered	100	
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	05/28/2024	
Time sampling will commence	09:00 AM	
Please provide any information necessary for observers to contact samplers	Sampler contacts; Gilbert Priego, (432-813-7389) Miranda Milwee, (432-813-9652) Sampling will occur on 5/28/2024 thru 5/31/2024	
Please provide any information necessary for navigation to sampling site	GPS coordinates of work site is 32.158435N, 104.243623W Eddy County	

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	346639
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)
· · · · · · · · · · · · · · · · · · ·	

CONDITIONS

Created By Condition Condition Date 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 5/22/2024 kmoser remediation closure samples not being accepted.

Action 346639

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

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Action 348643

QUESTIONS

Operator: 0	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	348643
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2409950483
Incident Name	NAPP2409950483 MARQUARDT 1 PENN FED 1 @ 0
Incident Type	Produced Water Release
Incident Status	Notification Accepted

Location of Release Source

Site Name	Marquardt 1 Penn Fed 1
Date Release Discovered	04/04/2024
Surface Owner	Federal

Sampling Event General Information

Please answer all the questions in this group.	
What is the sampling surface area in square feet	18,900
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/03/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sampler contact info - Gilbert Priego, 432-813-7389 or Miranda Milwee, 432-813-9652 Sampling will take place on 6/3/2024 and 6/4/2024
Please provide any information necessary for navigation to sampling site	GPS Coordinates - 32.158435N, 104.243623W Carmona Resources will be onsite from 06/03/2024 - 06/04/2024 to collect composite confirmation samples

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	348643
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By Condition Condition Date 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 5/29/2024 kmoser remediation closure samples not being accepted.

Action 348643

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

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Action 349868

QUESTIONS

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	349868
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2409950483
Incident Name	NAPP2409950483 MARQUARDT 1 PENN FED 1 @ 0
Incident Type	Produced Water Release
Incident Status	Notification Accepted

Location of Release Source

Site Name	Marquardt 1 Penn Fed 1
Date Release Discovered	04/04/2024
Surface Owner	Federal

Sampling Event General Information

Please answer all the questions in this group.	
What is the sampling surface area in square feet	18,900
What is the estimated number of samples that will be gathered	100
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/05/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Sampler contact info. Gilbert Priego, 432-813-7389 Miranda Milwee, 432-813-9653 Carmona Resources will be onsite from 06/05/2024 thru 06/07/2024 to collect composite confirmation samples
Please provide any information necessary for navigation to sampling site	GPS Coordinates: 32.158435N, 104.243623W

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	349868
	Action Type:
	[NOTIFY] Notification Of Sampling (C-141N)
· · · · · · · · · · · · · · · · · · ·	

CONDITIONS

Created By Condition Condition Date 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 5/31/2024 kmoser remediation closure samples not being accepted.

CONDITIONS

Action 349868

APPENDIX D



Received by OCD: 6/21/2024 9:41:17 AM Nearest water well

Constant, Street, St.

Blackbuck New Mexico LLC

42' - Drilled 1958

52' - Drilled 2006

45' - Drilled 1962

Marquardt 1 Penn Fed 1 (04.04.2024)

60' - GWDB (05.31.2023) - DRY

Google Earth Released to Imaging: 7/2/2024 3:00:58 PM Image @ 2024 Airput:

14	Leg	gend Page 48 of 222
	\$	0.50 Mile Radius
No.	3	0.91 Miles
	\$	1.85 Miles
	3	2.10 Miles
	30	2.37 Miles
		Groundwater Determination Bore
	۲	Marquardt 1 Penn Fed 1 (04.04.2024)
		NMSEO Water Well
6.		

N

Received by OCD: 6/21/2024 9:41:17 AM High Karst Blackbuck New Mexico LLC



Marquardt 1 Penn Fed 1 (04.04.2024)





🯉 High



Marquardt 1 Penn Fed 1 (04.04.2024) 🥖 Medium

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New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced O=orphaned, C=the file is closed)	(2=NE 3 st to lar	3=SW 4=SE gest) (N/) AD83 UTM in me	eters)	(In feet)	
POD Number	POD Sub- Code basin (County		Q 16		Sec	Tws	Rng	Х	Y	Distance	-	Depth Water	Water Column
<u>C 00819</u>	С	ED		4	4	26	24S	26E	570022	3560935* 🌍	2957	62	42	20
C 04586 POD1	С	ED	4	1	1	35	24S	26E	568993	3560476 🌍	3205	150		
C 03200 POD1	С	ED	2	3	4	34	24S	26E	568206	3559349 🌍	3301	80	52	28
C 03569 POD1	CUB	ED	2	1	1	14	25S	26E	568862	3555746 🌍	3539	30	0	30
<u>C 01089</u>	С	ED	3	4	1	03	25S	26E	567505	3558398* 🌍	3827	96	45	51
										Avera	ge Depth to	Water:	34	feet
											Minimum	Depth:	0	feet
											Maximum	Depth:	52	feet
Record Count: 5														

UTMNAD83 Radius Search (in meters):

Easting (X): 571331.1

Northing (Y): 3558282.8

Radius: 4000

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*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

	RE LOG		
Project:	Scoter 6-31 Fed Com #7H,43H,44H Battery	Date:	May 31, 2023
Туре:	Exploratory Water Bore	Location:	Scoter 6-31 Fed Com 7H,43H,44H Battery

Depth	Soil Type	Classification	Comments
0′	Caliche		
5′	Gypsum/Clay		Gypsum-70% Clay-30%
10′	Gypsum/Red Clay		Gypsum-50% Red Clay-50%
15″	Gypsum/Red Clay		Gypsum-50% Red Clay-50%
20′	Gypsum/Red Clay		Gypsum-50% Red Clay-50%
25′	Gypsum		
30′	Gypsum/Red Clay		Gypsum-20% Red Clay-80%
35′	Gypsum/Red Clay		Gypsum-90% Red Clay-10%
40′	Gypsum/Red Clay		Gypsum-50% Red Clay-50%
45′	Gypsum/Red Clay		Gypsum-50% Red Clay-50%
50′	Gypsum/Red Clay		Gypsum-50% Red Clay-50%
55′	Gypsum/Red Clay		Gypsum-50% Red Clay-50%
60' TD	Gypsum/Red Clay		Gypsum-50% Red Clay-50%
			No Groundwater 5/31/2023 - 6/08/2023
			GPS: 32.155795,-104.22849

North West Elevation

② 132°SE (T) ● 32.155777, -104.228452 ±2 m ▲ 991 m

Water Bore Soil

Scoter 6-31 Fed Com 7H,43H,44H Bat

North East Elevation

② 238°SW (T) ● 32.155795, -104.22849 ±1 m ▲ 993 m



Scoter 6-31 Fed Com 7H,43H,44H Bat



New Mexico Office of the State Engineer Point of Diversion Summary

		(quarters are			E 3=SW	(NAD83 UTM in meters)			
Well Tag POD	Number	Q64 Q16			0 /		X	Ŷ	
C 0	0819	4	4	26	24S	26E	570022	3560935* 🧲	
Driller License:	30	Driller Con	ipan	y:	BA	RRON, E	EMMETT		
Driller Name:	EMMETT BARRO	N							
Drill Start Date:	02/23/1958	Drill Finish	Dat	e:	0	2/25/1958	3 P I	ug Date:	
Log File Date:	03/25/1958	PCW Rev I	Date:				So	ource:	Shallow
Pump Type:		Pipe Discha	rge	Size:			Es	stimated Yield	:
Casing Size:		Depth Well	:		6	2 feet	D	epth Water:	42 feet

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/11/24 10:09 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer Point of Diversion Summary

			< I				E 3=SW	/ 4=SE))	(NAD8	3 UT	M in meters)	
Well Tag	POD Nur	nber	Q64	Q16	Q4	Sec	Tws	Rng		Х	Y	
(C 03200	POD1	2	3	4	34	24S	26E	56820)6	3559349 🌍	
Driller Licen	se: 685		Drille	r Con	npan	ıy:	BR	AZEAL,	JOHN			
Driller Name	e: WA	YNE BRAZEAL	2									
Drill Start Da	ate: 08/	12/2005	Drill I	Finish	Dat	e:	0	8/20/200	5	Plu	g Date:	
Log File Date	e: 08/	18/2006	PCW	Rcv I	Dates	:				Sou	irce:	Shallow
Pump Type:			Pipe I	Discha	irge	Size:				Est	imated Yield:	8 GPM
Casing Size:			Depth	Well	:		8	0 feet		Dep	oth Water:	52 feet

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the data.

4/11/24 10:10 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer **Point of Diversion Summary**

			(quarte	ers are 1	=NW	2=N	E 3=SW	(4=SE)				
			(quar	ters are	smalle	est to	largest)		(NAD83	UTM in m	eters)	
Well Tag	POD	Number	Q64	Q16 (24 \$	Sec	Tws	Rng	Х	Z	Y	
	C 0	1089	3	4	1	03	25S	26E	567505	35583	398* 🔵	
Driller Lice	ense:	46	Driller	Comp	oany	:	AB	BOTT	BROTHER	S COMI	PANY	
Driller Nar	ne:	ABBOTT, FLOYE)									
Drill Start	Date:	08/06/1962	Drill F	inish I	Dates		0	8/07/19	962 I	lug Dat	e:	11/01/1962
Log File Da	ate:	08/17/1962	PCW F	Rev Da	te:				S	ource:		Shallow
Pump Type	e:		Pipe D	ischar	ge Si	ze:			I	Estimate	d Yield:	
Casing Size	e:	7.00	Depth	Well:			9	6 feet	Ι	Depth Wa	ater:	45 feet
C	Wate	er Bearing Stratific	ations:		Тор	F	Bottom	Des	cription			
					45		65	San	dstone/Grav	el/Congl	omerate	
					65		75	San	dstone/Grav	el/Congl	omerate	
					75		90	San	dstone/Grav	el/Congl	omerate	
(Casing Perfo	rations:		Тор	E	Bottom	l				
					45		90)				

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/11/24 10:12 AM

POINT OF DIVERSION SUMMARY

FEMA National Flood Hazard Layer (NFHL)



Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

FEMA National Flood Hazard Layer (NFHL)



600ft

Maxar | Esri Community Maps Contributors, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Marquardt 1 Penn Fed 1 (04.04.2024)





Esri Community Maps Contributors, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA, NM

New Mexico Oil Conservation Division

APPENDIX E





May 30, 2024

ASHTON THIELKE CARMONA RESOURCES 310 W WALL ST, SUITE 500 MIDLAND, TX 79701

RE: MARQUARDT 1 PENN FEDERAL #001 (04.04.24)

Enclosed are the results of analyses for samples received by the laboratory on 05/24/24 14:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 1 (3.5') (H242923-01)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 :	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/29/2024	ND	416	104	400	7.41	
TPH 8015M	mg/	/kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	90.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	88.2	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 2 (3.5') (H242923-02)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	05/29/2024	ND	416	104	400	7.41	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	82.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	81.7	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and clent's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, whother based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 3 (2.5') (H242923-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	05/29/2024	ND	416	104	400	7.41	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	88.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	85.2	% 49.1-14	0						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 4 (2.5') (H242923-04)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	98.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	96.3	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 5 (2.5') (H242923-05)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	84.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	80.3	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 6 (2.5') (H242923-06)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	106 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103 9	% 49.1-14	8						

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 7 (2.5') (H242923-07)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	93.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	90.4	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 8 (2.5') (H242923-08)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	102 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.4	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 9 (2.5') (H242923-09)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	112 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	110 9	<i>49.1-14</i>	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 10 (1.5') (H242923-10)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	111 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	110	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 11 (1.5') (H242923-11)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	108 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	107 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager


CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 12 (1.5') (H242923-12)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	96.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.1	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 13 (1.5') (H242923-13)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 5	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	<i>93.8</i>	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.0	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 14 (1.5') (H242923-14)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	99.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 15 (1.5') (H242923-15)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	97.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.1	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 16 (1.5') (H242923-16)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	103	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	99.8	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 1 (3.5') (H242923-17)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	104 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	102 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 2 (3.5') (H242923-18)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	111 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	109 9	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 3 (3.5') (H242923-19)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					
Surrogate: 1-Chlorooctane	98.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	96.3	% 49.1-14	8						

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CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 4 (2.5') (H242923-20)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	05/29/2024	ND	2.08	104	2.00	2.87	
Toluene*	<0.050	0.050	05/29/2024	ND	2.18	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.13	107	2.00	2.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.64	111	6.00	2.61	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	199	99.4	200	0.103	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	195	97.5	200	0.0457	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					
Surrogate: 1-Chlorooctane	68.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	66.0	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 5 (2.5') (H242923-21)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.94	96.9	2.00	5.24	
Toluene*	<0.050	0.050	05/29/2024	ND	1.89	94.7	2.00	4.30	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.93	96.3	2.00	3.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.57	92.9	6.00	3.28	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	91.1	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	207	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	191	95.5	200	4.26	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	78.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	87.3	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 6 (1.0') (H242923-22)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.94	96.9	2.00	5.24	
Toluene*	<0.050	0.050	05/29/2024	ND	1.89	94.7	2.00	4.30	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.93	96.3	2.00	3.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.57	92.9	6.00	3.28	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.1	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	207	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	191	95.5	200	4.26	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	65.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	73.6	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 7 (1.5') (H242923-23)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.94	96.9	2.00	5.24	
Toluene*	<0.050	0.050	05/29/2024	ND	1.89	94.7	2.00	4.30	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.93	96.3	2.00	3.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.57	92.9	6.00	3.28	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.7	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	05/29/2024	ND	448	112	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	207	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	191	95.5	200	4.26	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	74.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	86.0	% 49.1-14	8						

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 8 (1.5') (H242923-24)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.94	96.9	2.00	5.24	
Toluene*	<0.050	0.050	05/29/2024	ND	1.89	94.7	2.00	4.30	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.93	96.3	2.00	3.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.57	92.9	6.00	3.28	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	91.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/29/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	207	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	191	95.5	200	4.26	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	80.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	87.8	% 49.1-14							

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Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 9 (1.5') (H242923-25)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.94	96.9	2.00	5.24	
Toluene*	<0.050	0.050	05/29/2024	ND	1.89	94.7	2.00	4.30	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.93	96.3	2.00	3.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.57	92.9	6.00	3.28	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	91.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	05/29/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	207	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	191	95.5	200	4.26	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	78.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	85.9	% 49.1-14	8						

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CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 10 (1.5') (H242923-26)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.94	96.9	2.00	5.24	
Toluene*	<0.050	0.050	05/29/2024	ND	1.89	94.7	2.00	4.30	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.93	96.3	2.00	3.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.57	92.9	6.00	3.28	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	91.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/29/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	207	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	191	95.5	200	4.26	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	80.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	88.2	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/24/2024	Sampling Date:	05/24/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 11 (1.5') (H242923-27)

BTEX 8021B	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.94	96.9	2.00	5.24	
Toluene*	<0.050	0.050	05/29/2024	ND	1.89	94.7	2.00	4.30	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.93	96.3	2.00	3.67	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.57	92.9	6.00	3.28	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/29/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/28/2024	ND	207	103	200	1.56	
DRO >C10-C28*	<10.0	10.0	05/28/2024	ND	191	95.5	200	4.26	
EXT DRO >C28-C36	<10.0	10.0	05/28/2024	ND					
Surrogate: 1-Chlorooctane	78.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	86.9	% 49.1-14	8						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Project Manager: As	Ashton Thielke				Bill to: (if different)	(1)	Carm	Carmona Resources	ources						Wo	Work Order Comments
	Carmona Resources				Company Name:	IE:							Progra	Program: UST/PST PRP	ST	RP }rownfields
	310 W Wall St Ste 500	00			Address:								State o	State of Project:	1	
e ZIP:	Midland, TX 79701				City, State ZIP		-						Reporti	Reporting:Level II Level III		
	432-813-8988			Email:								L	Deliver	Deliverables: EDD		AUaP1
Name:	Marguardt 1 Penn Federal #001 (04.04.24)	-ederal #00	01 (04.04.24)	Turn	Turn Around						ANALYS	ANALYSIS REQUEST	JEST			
Ä		2337		Routine	🖪 Rush	Pres. Code	0 2		╞	\vdash	F	┝		+		
Project Location	Eddy County, New Mexico	ty, New Me		Due Date:	72 hrs	Ľ))								
Sampler's Name:		MM			(MRC		-		1				
PO#						ers		0 + 1								
SAMPLE RECEIPT	T Temp Blank:	ink	Yes No	Wet Ice:	Yes No	met	218	DR	4500	-		_		_		
Received Intact:	(res) h		Thermometer ID:		140	Para	X 80	RO -	ride							
Cooler Custody Seals:		$\[\]$	Correction Factor:		000	1	вте	MI (G	Chlo							
Sample Custody Seals:	Yes No	NIA I	lemperature Reading:	ading:	100			3015		-						
Total Commission					Grab/		*	трн								
Sample Identification		Date	IIIII	IIDO	Comp	mp Cont				+	T	+		+	+	
CS-1 (3.5')		5/24/2024		×		\vdash	×	×	×	+		+		+	+	
CS-2 (3.5')		5/24/2024		×		+	+	× ×	×	+		+	T	+	+	
CS-3 (2.5')		5/24/2024		×		-	-	×	×	+	t	+	T	+	+	
CS-4 (2.5')		5/24/2024		×		C 1	-	×	×	+		┝		+	+	
CS-5 (2.5')		5/24/2024		×		-	-	×	×	┝		╀	t	╀	+	T
CS-6 (2.5')	-	5/24/2024		×		C 1	\vdash	×	×					+	+	
CS-7 (2.5')		5/24/2024		×		C 1	-	×	×	\vdash		+		-	+	
CS-8 (2.5')		5/24/2024		×		C 1	-	×	×	╞		+		+	+	
CS-9 (2.5')		5/24/2024		×		\vdash	-	×	×	╞		+			+	
CS-10 (1.5')		5/24/2024		×		C 1	×	×	×						╟	
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Chain of Custody

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Mr	11		Comments.	SW-4 (2.5')	SW-3 (3.5')	SW-2 (3.5')	SW-1 (3.5')	CS-16 (1.5')	CS-15 (1.5')	CS-14 (1.5')	CS-13 (1.5')	CS-12 (1.5')	CS-11 (1.5')			Total Containers:	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	SAMPLE RECEIPT	PO #:	Sampler's Name:	Project Location	Project Number:	Project Name:	Phone:	City, State ZIP:		Name:					
und N	A B	•		(2.5')	(3.5')	(3.5')	(3.5')	(1.5')	(1.5')	(1.5')	(1.5')	(1.5')	(1.5')	luication			: Yes	s: Yes No					Eddy C		Marquardt 1 Penn Federal #001 (04.04.24)	432-813-8988	Midland, TX 79701	310 W Wall St Ste 500	Carmona Resources		Ashton Thielke			
	Relinquished by: (Signature)			5/24/2024	5/24/2024	5/24/2024	5/24/2024	5/24/2024	5/24/2024	5/24/2024	5/24/2024	5/24/2024	5/24/2024	Date		0	NO NIA	NIA		Temp Blank:		MM	Eddy County, New Mexico	2337	nn Federal #0		01	te 500	rces	1000				
	y: (Signature)													11110	Timo	Corrected Temperature:	Temperature Reading:	Correction Factor:	Thermometer ID:	Yes No			exico		01 (04.04.24)									
				×	×	×	×	×	×	X	×	×	×		e coii	erature:	ading:	ā		Wet Ice:			Due Date:	Routine	Turn	Email:								
									-					-	Water Grab/	(2.80	1	140	Yes No			72 hrs	Rush	Turn Around		City, State ZIP	Address.	Company Ivanie	Company Nan	Bill to: (if different)			
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5-24-24	Date				< ×	. ×	×	×	×	×	×	×	×				E	BTE	X 80	21B											Carm			
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	(Signature)																					1				EUU		vell	ject:	ST/PST		1	Wo	
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					+	\dagger		\dagger	\uparrow	t	t	t	t			NaOH		- CCPNI	Naro	H ₃ PO ₄ : HP	H ₂ S0 ₄ : H ₂	HCL: HC	Cool: Cool	None: NO				PST/UST		rownfields	Work Order Comments		ĥ	
															Sample Comments	NaUH+Ascorbic Acid: SAPC	Zn Acetate+NaUH: Zn	Na20203. Na003	Na CO: NaCO	HP	: H ₂	: H	Cool	NO	Preservative Codes	Outer.		RRP	[RC	ents	Page	2	
	Date/Time														Comm	DIC ACID:	aUH: Zr	03	D D	5	NaC	HNC	MeC	DIW	ative C	1	1					2of	24240	
1 1	T														ients	SAP					NaOH: Na	HNO3: HN	MeOH: Me	DI Water: H ₂ O	odes					Iperfund			0	-
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	Latter Thinks	2 12 12			Bill to: (if different)		Carmo	Carmona Resources	ources					Work	Work Order Comments	N.
	ASINUII IIIIIINE	TCDC			Company Name:	•							Pro	Program: UST/PST PRP rownfields		RC perfund
INGING.	310 W Wall St Ste 500	te 500			Address:								Sta	State of Project:		
City State ZIP: N	Midland, TX 79701	01			City, State ZIP:								Re			
	432-813-8988			Email:												
Name:	Marguardt 1 Penn Federal #001 (04.04.24)	nn Federal #0	01 (04.04.24)	Turn	Turn Around						ANAL	ANALYSIS REQUEST	EQUES		Pre	ervati
ň		2337		Routine	Rush	Code				+	+		-		Note, NO	
Project Location	Eddy C	Eddy County, New Mexico	exico	Due Date:	72 hrs))							HCI - HC	HNO3: HN
Sampler's Name:		MM		à				MRC		c					H ₂ S0 ₄ : H ₂	
PO #		Temp Blank:	Yes MO	Wet Ice:	Yes No	neter	18	DRO	500				16		H ₃ PO ₄ : HP	
Received Intact:	*	No	Thermometer ID:		140	Para	x 802	RO +	ride 4						Na ₂ S ₂ O ₃ : NaSO ₃	NaSO3
Cooler Custody Seals:	Yes	NIA	Correction Factor:		0000		вте	м (С	Chlo						Zn Aceta	Zn Acetate+NaOH: Zn
Sample Custody Seals: Total Containers	Yes	NO	Corrected Temperature:	erature:	1000			801							NaOH+A	NaOH+Ascorbic Acid: SAPC
Sample Identification	tification	Date	Time	Soil	Water Comp	b/ #of np Cont		TP							Sa	Sample Comments
SW-5 (2.5')	2.5')	5/24/2024		×	c	1	×	×	×	-	-					
	1.0')	5/24/2024		×	0	-	×	×	×	-	+					
SW-7 (1.5')	1.5')	5/24/2024		×		+	< >	< >	< >		+		-			80
	1.5')	5/24/2024		< ×		<u> </u>	< >	× >	× >	_	+					
	1.5")	5/24/2024		× >	0	+	× :	×	×		-	×.				,
	(0.1)	JETIEVET		<		-	×	×	×		_					
37) SW-11 (1.5)	(1.5')	5/24/2024		×		+++	,	>	,	+++	+++					
Comments:																
		Relinquished	Relinquished by: (Signature)				Date	Date/Time					Receiv	Received by: (Signature)	(Date/Time
M	with					Si	2-24-24	14	1450			M.M.	101	A marin	A	

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May 31, 2024

ASHTON THIELKE CARMONA RESOURCES 310 W WALL ST, SUITE 500 MIDLAND, TX 79701

RE: MARQUARDT 1 PENN FEDERAL #001 (04.04.24)

Enclosed are the results of analyses for samples received by the laboratory on 05/28/24 15:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/28/2024	Sampling Date:	05/28/2024
Reported:	05/31/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 17 (2.0') (H242951-01)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	05/29/2024	ND	2.04	102	2.00	4.26	
Toluene*	<0.050	0.050	05/29/2024	ND	2.11	106	2.00	4.16	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.06	103	2.00	3.95	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.27	105	6.00	4.01	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/30/2024	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2024	ND	232	116	200	1.66	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	232	116	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					
Surrogate: 1-Chlorooctane	88.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	82.0	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/28/2024	Sampling Date:	05/28/2024
Reported:	05/31/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 18 (2.0') (H242951-02)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.04	102	2.00	4.26	
Toluene*	<0.050	0.050	05/29/2024	ND	2.11	106	2.00	4.16	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.06	103	2.00	3.95	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.27	105	6.00	4.01	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	05/30/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2024	ND	232	116	200	1.66	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	232	116	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					
Surrogate: 1-Chlorooctane	100	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	<i>93.1</i>	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/28/2024	Sampling Date:	05/28/2024
Reported:	05/31/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 19 (2.0') (H242951-03)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.04	102	2.00	4.26	
Toluene*	<0.050	0.050	05/29/2024	ND	2.11	106	2.00	4.16	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.06	103	2.00	3.95	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.27	105	6.00	4.01	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	05/30/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2024	ND	232	116	200	1.66	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	232	116	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					
Surrogate: 1-Chlorooctane	114 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/28/2024	Sampling Date:	05/28/2024
Reported:	05/31/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 20 (2.0') (H242951-04)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.04	102	2.00	4.26	
Toluene*	<0.050	0.050	05/29/2024	ND	2.11	106	2.00	4.16	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.06	103	2.00	3.95	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.27	105	6.00	4.01	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	05/30/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2024	ND	232	116	200	1.66	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	232	116	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					
Surrogate: 1-Chlorooctane	112 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	105 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/28/2024	Sampling Date:	05/28/2024
Reported:	05/31/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 12 (2.0') (H242951-05)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.04	102	2.00	4.26	
Toluene*	<0.050	0.050	05/29/2024	ND	2.11	106	2.00	4.16	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.06	103	2.00	3.95	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.27	105	6.00	4.01	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/30/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2024	ND	232	116	200	1.66	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	232	116	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					
Surrogate: 1-Chlorooctane	113 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	107	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/28/2024	Sampling Date:	05/28/2024
Reported:	05/31/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 13 (2.0') (H242951-06)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.04	102	2.00	4.26	
Toluene*	<0.050	0.050	05/29/2024	ND	2.11	106	2.00	4.16	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.06	103	2.00	3.95	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.27	105	6.00	4.01	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/30/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2024	ND	232	116	200	1.66	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	232	116	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					
Surrogate: 1-Chlorooctane	106 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	99.8	% 49.1-14	8						

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/28/2024	Sampling Date:	05/28/2024
Reported:	05/31/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 14 (2.0') (H242951-07)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.04	102	2.00	4.26	
Toluene*	<0.050	0.050	05/29/2024	ND	2.11	106	2.00	4.16	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.06	103	2.00	3.95	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.27	105	6.00	4.01	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	05/30/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2024	ND	232	116	200	1.66	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	232	116	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					
Surrogate: 1-Chlorooctane	103	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	96.7	% 49.1-14	8						

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*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/28/2024	Sampling Date:	05/28/2024
Reported:	05/31/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 15 (2.0') (H242951-08)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	2.04	102	2.00	4.26	
Toluene*	<0.050	0.050	05/29/2024	ND	2.11	106	2.00	4.16	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	2.06	103	2.00	3.95	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	6.27	105	6.00	4.01	
Total BTEX	<0.300	0.300	05/29/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/30/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2024	ND	232	116	200	1.66	
DRO >C10-C28*	<10.0	10.0	05/30/2024	ND	232	116	200	0.987	
EXT DRO >C28-C36	<10.0	10.0	05/30/2024	ND					
Surrogate: 1-Chlorooctane	86.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	79.4	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

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	Phone:	402-010-000										ANAL	ANALYSIS REQUEST	EQUES	T					Preservative Codes	rative C	odes	-
	Project Name:	Marquardt 1 Penn Federal #001 (04.04.24)	nn Federal #0	01 (04.04.24)		Turn Around	Pre	s.		_	_	-		_	-			_	No	None: NO	DIV	DI Water: H ₂ O	
	E.		2337		Routine	I Rush	Code	Je			+	+		+	+	1		_	0	Cool: Cool	Me	MeOH: Me	
	Project Location	Eddy C	Eddy County, New Mexico	exico	Due Date:	72 hrs			D)										H	HCL: HC	HNG	HNO3: HN	
	Sampler's Name:		MM				s		+ MR						i.				H2	H ₂ S0 ₄ : H ₂	Nac	NaOH: Na	
	SAMDI E DECEIDT		Temp Blank:	.Yes, No	Wet Ice:	Yes No			DRC	500	_			_	-	-		-	Ha				
	Received Intact:			Thermometer ID:		140	Para	x 80	RO	ride	_							2	Na	Na ₂ S ₂ O ₃ : NaSO ₃	SO3		
	Cooler Custody Seals:	Yes	o (N/A)	Correction Factor:	JT.	11	1		м (С	Chlo									Zn	Zn Acetate+NaOH: Zn	VaOH: Z	2	
	Sample Custody Seals:	Yes	NO	Corrected Temperature:	erature:				1 801										Z	NaOH+Ascorbic Acid: SAPC	rbic Acid	SAPC	-
	Sample Identification	ification	Date	Time	Soil	Water Co	Grab/ # Comp Cc	# of Cont	ТР						-					Sampl	Sample Comments	nents	N. A. C.
-	CS-17 (2.0')	2.0")	5/28/2024		×			\vdash	+	< ×	_	+		+	+	+			_				
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Released to Imaging: 7/2/2024 3:00:58 PM



June 04, 2024

ASHTON THIELKE CARMONA RESOURCES 310 W WALL ST, SUITE 500 MIDLAND, TX 79701

RE: MARQUARDT 1 PENN FEDERAL #001 (04.04.24)

Enclosed are the results of analyses for samples received by the laboratory on 05/30/24 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 21 (2.0') (H243042-01)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	104	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	216	108	200	3.83	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	218	109	200	7.33	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	<i>93.7</i>	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.5	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 22 (2.0') (H243042-02)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	216	108	200	3.83	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	218	109	200	7.33	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	94.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.3	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 23 (2.5') (H243042-03)

BTEX 8021B	mg/kg		Analyzed By: JH						
	Result	Reporting Limit	Analyzed	Method Blank	BS % Recovery	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 5	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	216	108	200	3.83	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	218	109	200	7.33	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	61.0 % 48.2-13		4						
Surrogate: 1-Chlorooctadecane	60.4	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 24 (2.5') (H243042-04)

BTEX 8021B	mg/kg		Analyzed By: JH						
	Result	Reporting Limit	Analyzed	Method Blank	BS % Recovery	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	216	108	200	3.83	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	218	109	200	7.33	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	78.2 % 48.2-13		4						
Surrogate: 1-Chlorooctadecane	76.5	% 49.1-14	8						

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager


CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 25 (1.5') (H243042-05)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	216	108	200	3.83	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	218	109	200	7.33	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	90.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	91.7	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 26 (1.5') (H243042-06)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	231	115	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	239	120	200	3.15	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	108 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 27 (1.5') (H243042-07)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	231	115	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	239	120	200	3.15	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	103 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	98.7	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 28 (1.5') (H243042-08)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	231	115	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	239	120	200	3.15	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	105 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	99.6	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 29 (1.5') (H243042-09)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	231	115	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	239	120	200	3.15	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	101	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.7	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 30 (2.0') (H243042-10)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 5	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	231	115	200	0.929	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	239	120	200	3.15	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	88.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	83.6	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 31 (2.0') (H243042-11)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	81.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 16 (2.0') (H243042-12)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	90.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	112 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 17 (2.0') (H243042-13)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/04/2024	ND	416	104	400	3.77	QM-07
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	88.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	108 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 18 (0.5') (H243042-14)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	84.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 19 (2.5') (H243042-15)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	72.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	87.7	% 49.1-14	8						

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 20 (1.0') (H243042-16)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	86.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106 9	% 49.1-14	8						

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 21 (1.5') (H243042-17)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.76	88.2	2.00	4.33	
Toluene*	<0.050	0.050	06/03/2024	ND	1.89	94.4	2.00	3.19	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.88	94.0	2.00	2.65	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.84	97.3	6.00	1.97	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	69.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	85.0	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 22 (1.5') (H243042-18)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.75	87.7	2.00	1.51	
Toluene*	<0.050	0.050	06/03/2024	ND	1.73	86.6	2.00	0.401	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.66	83.2	2.00	0.103	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.15	85.8	6.00	0.261	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	84.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 23 (1.5') (H243042-19)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.75	87.7	2.00	1.51	
Toluene*	<0.050	0.050	06/03/2024	ND	1.73	86.6	2.00	0.401	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.66	83.2	2.00	0.103	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.15	85.8	6.00	0.261	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.1	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	86.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	107 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 24 (1.5') (H243042-20)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.75	87.7	2.00	1.51	
Toluene*	<0.050	0.050	06/03/2024	ND	1.73	86.6	2.00	0.401	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.66	83.2	2.00	0.103	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.15	85.8	6.00	0.261	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	72.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	88.9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 25 (1.5') (H243042-21)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.75	87.7	2.00	1.51	
Toluene*	<0.050	0.050	06/03/2024	ND	1.73	86.6	2.00	0.401	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.66	83.2	2.00	0.103	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.15	85.8	6.00	0.261	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.3	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2680	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	85.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 26 (1.5') (H243042-22)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.75	87.7	2.00	1.51	
Toluene*	<0.050	0.050	06/03/2024	ND	1.73	86.6	2.00	0.401	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.66	83.2	2.00	0.103	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.15	85.8	6.00	0.261	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.3	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	72.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	89.1	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 27 (1.5') (H243042-23)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.75	87.7	2.00	1.51	
Toluene*	<0.050	0.050	06/03/2024	ND	1.73	86.6	2.00	0.401	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.66	83.2	2.00	0.103	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.15	85.8	6.00	0.261	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	81.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	100 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 28 (2.0') (H243042-24)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.75	87.7	2.00	1.51	
Toluene*	<0.050	0.050	06/03/2024	ND	1.73	86.6	2.00	0.401	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.66	83.2	2.00	0.103	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.15	85.8	6.00	0.261	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	<i>98.3</i>	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	76.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	94.8	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 29 (2.0') (H243042-25)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.75	87.7	2.00	1.51	
Toluene*	<0.050	0.050	06/03/2024	ND	1.73	86.6	2.00	0.401	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.66	83.2	2.00	0.103	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.15	85.8	6.00	0.261	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.1	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	82.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	05/30/2024	Sampling Date:	05/30/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 30 (2.0') (H243042-26)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/03/2024	ND	1.75	87.7	2.00	1.51	
Toluene*	<0.050	0.050	06/03/2024	ND	1.73	86.6	2.00	0.401	
Ethylbenzene*	<0.050	0.050	06/03/2024	ND	1.66	83.2	2.00	0.103	
Total Xylenes*	<0.150	0.150	06/03/2024	ND	5.15	85.8	6.00	0.261	
Total BTEX	<0.300	0.300	06/03/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	98.8	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/04/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	202	101	200	2.43	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	197	98.6	200	5.47	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	79.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.6	% 49.1-14	8						

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

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										Comments:
G		>	×			×		5/30/2024	(2.0')	CS-30 (2.0')
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00		+	+		0	×		5/30/2024	(1.5')	CS-28 (1.5')
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		\vdash	-	-	0	×		5/30/2024	(1.5')	CS-25 (1.5')
2-2		×	×	-	0	×		5/30/2024	(2.5')	CS-24 (2.5')
		+	-	-	0	×		5/30/2024	(2.5')	CS-23 (2.5')
12		+	-	_	0	×		5/30/2024	(2.0')	CS-22 (2.0')
		\vdash	×		c	×		5/30/2024	(2.0')	CS-21 (2.0')
Sample Comments		-		b/ #of np Cont	Water Comp	Soil	Time	Date	ntification	Sample Identification
		PH 80				ature:	Corrected Temperature:			Total Containers:
NaOH+Ascorbic Acid: SAPC				<u> </u>	10	ling:	Temperature Reading:	NO N/A	als: Yes	Sample Custody Seals:
Zn Acetate+NaOH: Zn			вте	F			Correction Factor:	NO N/A	s: Yes	Cooler Custody Seals:
Na.5.0. NaSO			X 80	Para	7140		Thermometer ID:	No	K	Received Intact:
Harda Har		+ DR 4500	21B	met	Yes	Wet Ice:	Yes No	Temp Blank:		SAMPLE RECEIPT
				ers			>			PO #:
		MRC				6		MM		Sampler's Name:
0)		1	72 hrs	Due Date:		Eddy County, New Mexico	Eddy	Project Location
			0	Code	Rush	Routine		2337		Project Number:
ervati	ANALYSIS REQUEST		_	Pre	Turn Around	Turn)01 (04.04.24)	Marquardt 1 Penn Federal #001 (04.04.24)	Marquardt 1 F	Project Name:
						Email:			432-813-8988	Phone:
					City, State ZIP:			1701	Midland, TX 79701	City, State ZIP:
					Address:			Ste 500	310 W Wall St Ste 500	Address:
Program: UST/PST PRP prowniteids pro- periodic project:	Program: US1/P State of Project:			e:	Company Name:			urces	Carmona Resources	Company Name:
Work Urder Comments		Carmona Resources	Carmor		Bill to: (if different)				Ashton Thielke	Project Manager:
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Work Order No: Hayaya of 31										
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City, State ZIP: Midland	Midland, TX 79701			City, State ZIP	IP.				R	
	3-8988		Email:							Deliverables: EDD
Name:	Marquardt 1 Penn Federal #001 (04.04.24)	#001 (04.04.24)	Turr	Turn Around					ANALYSIS REQUEST	ST
Project Number:	2337		Routine	√ Rush	Pres. Code	©				
Project Location	Eddy County, New Mexico	Mexico	Due Date:	72 hrs))			
Sampler's Name:	MM						MRC			
PO #						3	RO +	00	-	
Received Intact	Ves No	Thermometer ID:		in all	aram	8021	RO + D	de 45		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	5	1	P	BTE)	(G	hlor		
Sample Custody Seals:		Temperature Reading:	ading:	4.0		B	15M	С		
Fotal Containers:		Corrected Temperature:	erature:	1			H 80			
Sample Identification	n Date	Time	Soil	Water o	Grab/ # of Comp Cont	<u></u>	TF			
CS-31 (2.0')	5/30/2024		×		C 1	×		×		
SW-16 (2.0')	5/30/2024		×		C 1	-	+	×		
SW-17 (2.0')	5/30/2024		×		\vdash	-	+	× ×		
SW-18 (0.5')	5/30/2024		×		\vdash	+	+	< ×		
SW-19 (2.5')	5/30/2024		×		+	+	+	< ×		
SW-20 (1.0')	5/30/2024		×		+	+	+	< ×		
SW-21 (1.5')	5/30/2024		×		+	+	+	< >		
SW-22 (1.5')	5/30/2024		< ×		+	+	+	< >		
SW-23 (1.5')	5/30/2024		×		+	+	+	< >		
SW-24 (1.5')	5/30/2024		×		0	×	×	×		
Comments:										
						7				Received by: (Signature)
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Chain of Custody

Kin	1	6/21/2024 9 Comments				SW-30 (2.0')	SW-29 (2.0')	SW-28 (2.0')	SW-27 (1.5')	SW-26 (1.5')	SW-25 (1.5')	Sample Identification	Total Containers:	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	SAMPLE RECEIPT	PO #:	Sampler's Name:	Project Location	ň	Project Name: M		City, State ZIP: Mi	Address: 31	Company Name: Ca	Project Manager: As		134 oj
	1					0')	0")	0')	5')	5')	5')	cation		Yes	Yes	*				Eddy		arquardt 1 P	432-813-8988	Midland, TX 79701	310 W Wall St Ste 500	Carmona Resources	Ashton Thielke		
	Relinquished					5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	5/30/2024	Date		NO NA	NO N/A	(es No	Temp Blank:		MM	Eddy County, New Mexico	2337	enn Federal #		701	Ste 500	urces			
	Relinquished by: (Signature)											Time	Corrected Temperature:	Temperature Reading:	Correction Factor:	Thermometer ID:	Yes No			Mexico		Marquardt 1 Penn Federal #001 (04.04.24)							
	:)					×	< ×	×	×	×	×	Soil	iperature:	Reading:	tor:	D	Wet Ice:		1	Due Date:	Routine		Email:						
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2024	Date/Time											Sample Comments		bic Acid: S	aOH: Zn	ç,	SIS		NaO	MeO		Preservative Codes			Level IV			of	304
100	Time											ents		APC					NaOH: Na	MECH: ME	DI VValci. 1120	Sapo			elV		Inerfund	Page 31	



June 05, 2024

ASHTON THIELKE CARMONA RESOURCES 310 W WALL ST, SUITE 500 MIDLAND, TX 79701

RE: MARQUARDT 1 PENN FEDERAL #001 (04.04.24)

Enclosed are the results of analyses for samples received by the laboratory on 06/03/24 15:48.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-32 (2.0') (H243117-01)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/04/2024	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	79.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.6	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-33 (2.0') (H243117-02)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	87.1	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/04/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	88.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-34 (2.0') (H243117-03)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.8	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/04/2024	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	85.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-35 (2.0') (H243117-04)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/04/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	82.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	99.4	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-36 (2.5') (H243117-05)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.4	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	06/04/2024	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	86.0	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103	% 49.1-14	8						

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-37 (2.5') (H243117-06)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/04/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	90.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	111 9	49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-38 (2.5') (H243117-07)

BTEX 8021B	mg	/kg	Analyze	ed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.0	% 71.5-13	4						
Chloride, SM4500Cl-B	mg	/kg	Analyze	ed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	72.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	87.7	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-39 (2.5') (H243117-08)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	88.3	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	85.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-40 (2.5') (H243117-09)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	88.9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	81.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	97.5	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager


CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-31 (2.0') (H243117-10)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	87.7	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	83.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	101 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-32 (2.5') (H243117-11)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.3	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	83.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	101	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-33 (2.5') (H243117-12)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.4	% 71.5-13	4						
Chloride, SM4500CI-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	92.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	112 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-34 (2.5') (H243117-13)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.8	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	94.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	114 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-35 (2.5') (H243117-14)

BTEX 8021B	mg/	'kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	92.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	113 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-36 (2.5') (H243117-15)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	96.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	117 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-37 (2.5') (H243117-16)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	2.60	
Toluene*	<0.050	0.050	06/04/2024	ND	1.98	99.2	2.00	3.67	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	2.02	101	2.00	4.72	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.85	97.5	6.00	4.92	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	89.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	108 9	% 49.1-14	8						

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*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-38 (0.5') (H243117-17)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	1.81	90.7	2.00	6.28	
Toluene*	<0.050	0.050	06/04/2024	ND	1.85	92.7	2.00	2.47	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	1.92	95.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.72	95.3	6.00	3.04	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	115 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	89.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	107	% 49.1-14	8						

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*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	05/31/2024
Reported:	06/05/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-39 (2.5') (H243117-18)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	1.81	90.7	2.00	6.28	
Toluene*	<0.050	0.050	06/04/2024	ND	1.85	92.7	2.00	2.47	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	1.92	95.9	2.00	2.94	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.72	95.3	6.00	3.04	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/04/2024	ND	432	108	400	3.64	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/04/2024	ND	197	98.6	200	4.41	
DRO >C10-C28*	<10.0	10.0	06/04/2024	ND	184	92.1	200	0.634	
EXT DRO >C28-C36	<10.0	10.0	06/04/2024	ND					
Surrogate: 1-Chlorooctane	91.8	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	112 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

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						Comments:	SW-31 (2.0')	CS-40 (2.5')	CS-39 (2.5')	CS-38 (2.5')	CS-37 (2.5')	CS-36 (2.5')	CS-35 (2.0')	CS-34 (2.0')	00-00 (2.0)	(0.2) 20-02		Sample Identification	I otal Containers:	Sample Custody Seals:	Couler Custody Seals:	Cooler Cristel: n=1	SAMPLE RECEIPT	#	Sampler's Name:	Project Location	Project Number:				710.			Project Manager:		
	N.		7				('C	5')	5')	5')	5')	5')	0')	0')	0)		2	ication		Yes						Eddy		Marquardt 1	432-813-8988	WIUIdillu, I X /9/01	Midland TV	310 W Wall St Ste 500	Carmona Resources	Ashton Thielke	- m.	
		elinquished I	blinguished 1				6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	Cale	Date		NO NIA	NO NIA	Yes No	Temp Blank:		GP	Eddy County, New Mexico	2337	Penn Federa		LO/6/		St Ste 500	sources	(e		
	4	Relinquished by: (Signature)					11	1	K	10	-	11	11	11	11	5/31/24 .	lime	Time	Corrected Temperature:	Temperature Reading:	Correction Factor:	Thermometer ID:	Yes No			v Mexico		Marquardt 1 Penn Federal #001 (04.04.24)								
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	1.3.2																Imple Co	Ascorbic.	Zn Acetate+NaOH: Zn	Na ₂ S ₂ O ₃ : NaSO ₃	NaHSO4: NABIS	ΗP	H ₂	Ō	00	NO	reservat	Culei.		RRP		RC	ents	Page 1	her	
	4 150	Date/Time															Sample Comments	NaOH+Ascorbic Acid: SAPC	H: Zn	au			NaOH: Na	HNO3: HN	MeOH: Me	DI Water: H ₂ O	Preservative Codes				Cipotin	Iperfund		of	311	
	S			_					12									Ő					a	Ż	Ле	r: H ₂ O	ů		2	<					Page 21 of	00

Received by OCD: 6/21/2024 9:41:17 AM

\int			Comments:		T				4		1				Total Con		Received Intact:	SAMPL	PO #:	Sampler's Name	Project Location	Project Number:	Project Name:		Dhono.	City, State ZIP:	Address:	Company Name:	Project Manager:
)		ts		SVV-39 (2.5)	SVV-38 (0.5')	SW-37 (2.5')	SW-36 (2.5')	SW-35 (2.5')	SW-34 (2.5')	SW-33 (2.5')	SW-32 (2	Sample Identification	Imiticis.	Sample Custody Seals: Total Containers	Couler Custody Seals:	Intact:	SAMPLE RECEIPT		s Name:	ocation	lumber:	lame:			e ZIP:			
j.	R				.5')	.5')	.5')	.5')	2.5')	2.5')	2.5')	(2.5')	ification		s: Yes		:				Eddy		Marquardt 1 F	402-010-088		Midland, TX 79701	310 W Wall St Ste 500	Carmona Resources	Ashton Thielke
	Relinquished by: (Signature)				6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	6/3/2024	Date		NO NIA	TA		Temp Blank:		GP	Eddy County, New Mexico	2337	⁹ enn Federal #			9701	t Ste 500	ources	Т
	/: (Signature)				11	11	11	11	ii.	1	- 1	5/31/24 ap	Time	Corrected Temperature	Temperature Reading:	Correction Factor:	Thermometer ID:	Yes NO			Mexico		Marquardt 1 Penn Federal #001 (04.04.24)						
					×	×	×	×	×	×	×	×	Soil	oerature:	eading:	97	10.25	Wet Ice:			Due Date:	Routine		Email					
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24	Date/Time												Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	D U	Ĩ	NaC	HNC	Mec	DIV	Preservative Codes							2
KSU8	ime												ente	SAPC				NaOH: Na	HNO3: HN	MeOH: Me	DI Water: H ₂ O	odes					uperfund		of2

Page 22 of 22

Page 156 of 222

Chain of Custody



June 04, 2024

ASHTON THIELKE CARMONA RESOURCES 310 W WALL ST, SUITE 500 MIDLAND, TX 79701

RE: MARQUARDT 1 PENN FEDERAL #001 (04.04.24)

Enclosed are the results of analyses for samples received by the laboratory on 06/03/24 15:48.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	06/03/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-41 (1.5') (H243118-01)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	06/04/2024	ND	1.87	93.4	2.00	3.26	
Toluene*	<0.050	0.050	06/04/2024	ND	1.84	92.0	2.00	2.71	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	1.86	93.1	2.00	2.36	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.40	90.1	6.00	2.10	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.3	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/04/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	200	100	200	2.51	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	198	99.1	200	1.75	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	94.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	106	% 49.1-14	0						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	06/03/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-42 (1.5') (H243118-02)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	1.87	93.4	2.00	3.26	
Toluene*	<0.050	0.050	06/04/2024	ND	1.84	92.0	2.00	2.71	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	1.86	93.1	2.00	2.36	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.40	90.1	6.00	2.10	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	84.8	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/04/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	200	100	200	2.51	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	198	99.1	200	1.75	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	Surrogate: 1-Chlorooctane 94.2 % 48.2-12								
Surrogate: 1-Chlorooctadecane	100 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	06/03/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS-43 (1.5') (H243118-03)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	1.87	93.4	2.00	3.26	
Toluene*	<0.050	0.050	06/04/2024	ND	1.84	92.0	2.00	2.71	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	1.86	93.1	2.00	2.36	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.40	90.1	6.00	2.10	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/04/2024	06/04/2024 ND		108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	200	100	200	2.51	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	198	99.1	200	1.75	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	84.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	90.3	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/03/2024	Sampling Date:	06/03/2024
Reported:	06/04/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Tamara Oldaker
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW-40 (1.5') (H243118-04)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/04/2024	ND	1.87	93.4	2.00	3.26	
Toluene*	<0.050	0.050	06/04/2024	ND	1.84	92.0	2.00	2.71	
Ethylbenzene*	<0.050	0.050	06/04/2024	ND	1.86	93.1	2.00	2.36	
Total Xylenes*	<0.150	0.150	06/04/2024	ND	5.40	90.1	6.00	2.10	
Total BTEX	<0.300	0.300	06/04/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	83.5	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/04/2024 ND		432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/03/2024	ND	200	100	200	2.51	
DRO >C10-C28*	<10.0	10.0	06/03/2024	ND	198	99.1	200	1.75	
EXT DRO >C28-C36	<10.0	10.0	06/03/2024	ND					
Surrogate: 1-Chlorooctane	Surrogate: 1-Chlorooctane 90.7 %		4						
Surrogate: 1-Chlorooctadecane	93.7	% 49.1-14	0						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

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	: 6/21/2024 9		· · ·			+	50	eli	1											1					
$\left \right $		Comments:				SW-40 (1.5')	CS-43 (1.5')	CS-42 (1.5')	CS-41 (1.5')	Sample Identification	I otal Containers:	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	SAMPLE RECEIPT	PO #:	Sampler's Name:	Project Location	Project Number:	Project Name:	Phone:	City, State ZIP:	Address:	Company Name:	Project Manager:
V.						(1.5')	(1.5')	(1.5')	(1.5')	vtification		als: Yes						Eddy		Marquardt 1	432-813-8988	Midland, TX 79701	310 W Wall St Ste 500	Carmona Resources	Ashton Thielke
Relinquished by: (Signature)						6/3/2024	6/3/2024	6/3/2024	6/3/2024	Date	-	NO NIA	No	Yes No	Temp Blank:		GP/MM	Eddy County, New Mexico	2337	Penn Federal #		9701	t Ste 500	sources	e
y: (Signature)										Time	Corrected Temperature:	Temperature Reading:	Correction Factor:	Thermometer ID:	Yes NO			Mexico		Marquardt 1 Penn Federal #001 (04.04.24)					
						×	×	×	×	Soil	perature:	eading:	P	, .	Wet Ice:	4		Due Date:	Routine		Email:				
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6										Samp)H+Asc	Zn Acetate+NaOH: Zn	Na ₂ S ₂ O ₃ : NaSO ₃	NaHSOA: NABIS				None: NO	LIG31	122.2.2.2	ſ	T			Work Order Comments
Date										le Con	orbic Ac	-NaOH:	aSO3	ABIS	7	, -	~ ~		SI VALIV		. :	_		5	
Date/Time										Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn			NaOH: Na	HNU3: HN	MeOH: Me	DI Water: H ₂ O	r lesel valive Codes		l		periuna		
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Page 7 of 7

Work Order No: 1843118



June 06, 2024

ASHTON THIELKE CARMONA RESOURCES 310 W WALL ST, SUITE 500 MIDLAND, TX 79701

RE: MARQUARDT 1 PENN FEDERAL #001 (04.04.24)

Enclosed are the results of analyses for samples received by the laboratory on 06/04/24 15:14.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 44 (2.0') (H243158-01)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	87.5	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	90.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	93.8	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 45 (2.0') (H243158-02)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	88.5	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	101 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	98.4	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 46 (0.5') (H243158-03)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.3	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	78.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	75.4	% 49.1-14	8						

Cardinal Laboratories

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 47 (0.5') (H243158-04)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	88.8	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	92.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	94.3	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 48 (0.5') (H243158-05)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	110 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	114 9	<i>49.1-14</i>	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 49 (0.5') (H243158-06)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	104 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 50 (0.5') (H243158-07)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	102 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102 9	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 51 (0.5') (H243158-08)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	111 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	113 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 52 (0.5') (H243158-09)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.7	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	75.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	74.7	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 53 (0.5') (H243158-10)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	88.6	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	73.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	69.3	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 54 (0.5') (H243158-11)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					
Surrogate: 1-Chlorooctane	115 %	48.2-13	4						
Surrogate: 1-Chlorooctadecane	108 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 55 (0.5') (H243158-12)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.3	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	61.7	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	59.6	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 56 (0.5') (H243158-13)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.7	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					
Surrogate: 1-Chlorooctane	114 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	109 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 57 (0.5') (H243158-14)

BTEX 8021B	mg/	'kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.7	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/06/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					
Surrogate: 1-Chlorooctane	124 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	122 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 58 (0.5') (H243158-15)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.1	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	102 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	126 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 59 (0.5') (H243158-16)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	91.8	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	92.3	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	112 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager


CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 60 (0.5') (H243158-17)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	90.7	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	95.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	116 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 61 (0.5') (H243158-18)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	89.8	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	112 %	48.2-13	4						
Surrogate: 1-Chlorooctadecane	139 9	% 49.1-14	8						

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 62 (0.5') (H243158-19)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	76.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	93.2	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 63 (0.5') (H243158-20)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	107 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	131 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 64 (0.5') (H243158-21)

BTEX 8021B	mg/	'kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	102 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	125 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 65 (0.5') (H243158-22)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	105 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	128 9	49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 66 (0.5') (H243158-23)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	106 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	135 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 67 (0.5') (H243158-24)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	102 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	124 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 68 (0.5') (H243158-25)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	106 9	71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	102 9	48.2-13	4						
Surrogate: 1-Chlorooctadecane	125 9	49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 41 (2.0') (H243158-26)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	105 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	130 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 42 (1.5') (H243158-27)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 %	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	79.4	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 43 (0.5') (H243158-28)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	84.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	104 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 44 (0.5') (H243158-29)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	88.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	107 9	% 49.1-14	8						

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mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 45 (0.5') (H243158-30)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	89.1	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	109 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 46 (0.5') (H243158-31)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	76.9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	94.8	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 47 (0.5') (H243158-32)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	108 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	70.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	86.4	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 48 (0.5') (H243158-33)

BTEX 8021B	mg/	'kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	111 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	85.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	102 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 49 (0.5') (H243158-34)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	6 71.5-13	4						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	06/06/2024	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	219	109	200	2.98	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	215	107	200	2.10	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	88.6	48.2-13	4						
Surrogate: 1-Chlorooctadecane	108 9	6 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: SW - 50 (0.5') (H243158-35)

BTEX 8021B	mg/	′kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.04	102	2.00	1.71	
Toluene*	<0.050	0.050	06/05/2024	ND	2.14	107	2.00	0.969	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	2.11	106	2.00	0.982	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	6.44	107	6.00	1.22	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/06/2024	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	210	105	200	0.674	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	231	115	200	1.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	103 9	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	103 9	% 49.1-14	8						

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

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Page 201 of 222

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Chain of Custody

Work Order No: 1243158

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Chain of Custody

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Chain of Custody

Received by OCD: 6/21/2024 9:41:17 AM

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June 10, 2024

ASHTON THIELKE CARMONA RESOURCES 310 W WALL ST, SUITE 500 MIDLAND, TX 79701

RE: MARQUARDT 1 PENN FEDERAL #001 (04.04.24)

Enclosed are the results of analyses for samples received by the laboratory on 06/07/24 15:53.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/10/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 70 (0.5-0.75') (H243289-01)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/07/2024	ND	1.86	92.8	2.00	11.2	
Toluene*	<0.050	0.050	06/07/2024	ND	1.84	92.0	2.00	10.5	
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	1.84	92.2	2.00	9.75	
Total Xylenes*	<0.150	0.150	06/07/2024	ND	5.48	91.4	6.00	9.88	
Total BTEX	<0.300	0.300	06/07/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/10/2024	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2024	ND	150	74.9	200	13.1	
DRO >C10-C28*	<10.0	10.0	06/08/2024	ND	153	76.6	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	06/08/2024	ND					
Surrogate: 1-Chlorooctane	74.6	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	75.1	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/07/2024	Sampling Date:	06/07/2024
Reported:	06/10/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: CS - 71 (0.5-0.75') (H243289-02)

BTEX 8021B	mg/	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/07/2024	ND	1.86	92.8	2.00	11.2	
Toluene*	<0.050	0.050	06/07/2024	ND	1.84	92.0	2.00	10.5	
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	1.84	92.2	2.00	9.75	
Total Xylenes*	<0.150	0.150	06/07/2024	ND	5.48	91.4	6.00	9.88	
Total BTEX	<0.300	0.300	06/07/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 71.5-13	4						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/10/2024	ND	432	108	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/08/2024	ND	150	74.9	200	13.1	
DRO >C10-C28*	<10.0	10.0	06/08/2024	ND	153	76.6	200	7.72	
EXT DRO >C28-C36	<10.0	10.0	06/08/2024	ND					
Surrogate: 1-Chlorooctane	71.5	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	70.5	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager

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Miranda		C.	Comments:					CS-71 (0.5 - 0.75')	CS-70 (0.5 - 0.75')	Sample Identification	Total Containers:	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	SAMPLE RECEIPT	PO #:	Sampler's Name:	Project Location	Project Number:	Project Name:		e ZIP:			Project Manager:
a Milwee								- 0.75')	- 0.75')	tification			s: Yes					Ed		Marquardt	432-813-8988	Midland, TX 79701	310 W Wall St Ste 500	Carmona Resources	Ashton Thielke
ree	Relinquishe							6/7/2024	6/7/2024	Date	-	No	NO NIA	Yes No	Temp Blank:		MM	Eddy County, New Mexico	2337	1 Penn Federa	88	79701	St Ste 500	esources	lkę
	Relinquished by: (Signature)							4	4	Time	Corrected Temperature:	Temperature Reading:	Correction Factor:	Thermometer ID:	Yes No			w Mexico		Marquardt 1 Penn Federal #001 (04.04.24)				×	
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	ignature)		*																			Reporting:Level II Level III PST/UST	roject:	Program: UST/PST PRP rownfields RC	Work Ord
6-7-20	Date/Time									Sample Comments	NaOH+Ascorbic Acid: SAPC	Zn Acetate+NaOH: Zn	Na2S2O3: NaSO3	NaHSO4: NABIS	H ₃ PO ₄ : HP	H ₂ S0 ₄ : H ₂ NaOH: Na	HCL: HC HNO3: HN	Cool: Cool MeOH: Me	None: NO DI Water: H ₂ O	Preservative Codes	ADaPT Other:	ST/UST RRP Level IV		rownfields RC perfund	Work Order Comments

W

Work Order No: 1243289



June 06, 2024

ASHTON THIELKE CARMONA RESOURCES 310 W WALL ST, SUITE 500 MIDLAND, TX 79701

RE: MARQUARDT 1 PENN FEDERAL #001 (04.04.24)

Enclosed are the results of analyses for samples received by the laboratory on 06/04/24 15:14.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Whe Singh

Mike Snyder For Celey D. Keene Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: STOCKPILE COMPOSITE #1 (H243157-01)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	85.8	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	93.2	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	91.2	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



CARMONA RESOURCES ASHTON THIELKE 310 W WALL ST, SUITE 500 MIDLAND TX, 79701 Fax To:

Received:	06/04/2024	Sampling Date:	06/04/2024
Reported:	06/06/2024	Sampling Type:	Soil
Project Name:	MARQUARDT 1 PENN FEDERAL #001 (04	Sampling Condition:	Cool & Intact
Project Number:	2337	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY, NEW MEXICO		

Sample ID: STOCKPILE COMPOSITE #2 (H243157-02)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2024	ND	2.00	99.8	2.00	1.39	
Toluene*	<0.050	0.050	06/05/2024	ND	1.96	98.0	2.00	1.11	
Ethylbenzene*	<0.050	0.050	06/05/2024	ND	1.99	99.3	2.00	0.772	
Total Xylenes*	<0.150	0.150	06/05/2024	ND	5.78	96.4	6.00	0.595	
Total BTEX	<0.300	0.300	06/05/2024	ND					
Surrogate: 4-Bromofluorobenzene (PID	87.2	% 71.5-13	4						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/06/2024	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/05/2024	ND	236	118	200	4.21	
DRO >C10-C28*	<10.0	10.0	06/05/2024	ND	238	119	200	3.48	
EXT DRO >C28-C36	<10.0	10.0	06/05/2024	ND					
Surrogate: 1-Chlorooctane	100	% 48.2-13	4						
Surrogate: 1-Chlorooctadecane	95.8	% 49.1-14	8						

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Mite Sugar

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Chain of Custody

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Page 5 of 5

District I

1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 356578

QUESTIC	DNS .
Operator: Blackbuck New Mexico LLC	OGRID: 373619
3200 Southwest Freeway Houston, TX 77027	Action Number: 356578
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2409950483
Incident Name	NAPP2409950483 MARQUARDT 1 PENN FED 1 @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received

Location of Release Source

Please answer all the questions in this group.	
Site Name	Marquardt 1 Penn Fed 1
Date Release Discovered	04/04/2024
Surface Owner	Federal

Incident Details

Please answer all the questions in this group.	
Incident Type	Produced Water 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	Yes
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 Not answered. Cause: Human Error | Pipeline (Any) | Produced Water | Released: 100 BBL | Recovered: 0 Produced Water Released (bbls) Details BBL | Lost: 100 BBL Is the concentration of chloride in the produced water >10,000 mg/l Yes 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. This release was caused by a third party contractor, (Tactical Water Group) severing a Are there additional details for the questions above (i.e. any answer containing produced water pipeline, while performing work for another Operator, (Select Energy Other, Specify, Unknown, and/or Fire, or any negative lost amounts) Services). Blackbuck Resources, nor its facilities, equipment, contractors, or personnel were the cause of this release.

District I

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District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

QUESTIONS, Page 2

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.

Action 356578

QUESTIONS (continued)

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	356578
	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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more; (2) an unauthorized release of a volume that: (d) substantially damages property or the environment.

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

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 True environment Released materials have been contained via the use of berms or dikes, absorbent True pads, or other containment devices All free liquids and recoverable materials have been removed and managed True appropriately If all the actions described above have not been undertaken, explain why Not answered. 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. Name: Adrienne Tovar I hereby agree and sign off to the above statement Email: adrienne.tovar@blackbuckresources.com

Date: 06/21/2024

District I

1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

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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, Page 3

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Action 356578

QUESTIONS (continued)

Operator:	OGRID:
Blackbuck New Mexico LLC	373619
3200 Southwest Freeway	Action Number:
Houston, TX 77027	356578
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-V-Closure)

QUESTIONS

Site Characterization

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.

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	Direct Measurement
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 1 and 5 (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	Zero feet, overlying, or within area
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan

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. Requesting a remediation plan approval with this submission Yes 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. 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 CI B) 2680 TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M) 0 GRO+DRO (EPA SW-846 Method 8015M) 0 BTEX (EPA SW-846 Method 8021B or 8260B) 0 (EPA SW-846 Method 8021B or 8260B) Benzene 0 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. On what estimated date will the remediation commence 05/13/2024 On what date will (or did) the final sampling or liner inspection occur 05/24/2024 On what date will (or was) the remediation complete(d) 06/05/2024 What is the estimated surface area (in square feet) that will be reclaimed 17320 What is the estimated volume (in cubic yards) that will be reclaimed 1300 What is the estimated surface area (in square feet) that will be remediated 17320 What is the estimated volume (in cubic yards) that will be remediated 1300 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. 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.

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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, Page 4

Action 356578

QUESTIONS (continued)		
Operator:	OGRID:	
Blackbuck New Mexico LLC	373619	
3200 Southwest Freeway Houston, TX 77027	Action Number: 356578	
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	
QUESTIONS		
Remediation Plan (continued)		
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.	
This remediation will (or is expected to) utilize the following processes to remediate	/ reduce contaminants:	
(Select all answers below that apply.)		
(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	LEA LAND LANDFILL [fEEM0112342028]	
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.	
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 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: Adrienne Tovar Email: adrienne.tovar@blackbuckresources.com Date: 06/21/2024	

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.

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Action 356578

QUESTIONS (continued)		
Operator: Blackbuck New Mexico LLC	OGRID: 373619	
3200 Southwest Freeway	Action Number:	
Houston, TX 77027	356578 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

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Action 356578

QUESTIONS (continued) Operator: OGRID: Blackbuck New Mexico LLC 373619 3200 Southwest Freeway Action Number: Houston, TX 77027 356578 Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	349868
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/05/2024
What was the (estimated) number of samples that were to be gathered	100
What was the sampling surface area in square feet	18900

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.		
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	17320	
What was the total volume (cubic yards) remediated	1300	
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	17320	
What was the total volume (in cubic yards) reclaimed	1300	
Summarize any additional remediation activities not included by answers (above)	After buried pipelines and utilities in the ROW were hydrovac'd and uncovered to be safely identified, the entire area was excavated/remediated at risk. All contamination was removed from the site and disposed of properly. Composite confirmation floor and sidewall samples were obtained followed by backfill of the entire remediation area to resume oilfield activities along the ROW and lease road. Backfill material was tested and confirmed to be clean before backfilling into the excavation.	
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 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: Adrienne Tovar
	Email: adrienne.tovar@blackbuckresources.com
	Date: 06/21/2024

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QUESTIONS, Page 7

Action 356578

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QUESTIONS (continued)			
Operator:	OGRID:		
Blackbuck New Mexico LLC	373619		
3200 Southwest Freeway	Action Number:		
Houston, TX 77027	356578		
	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 356578

Operator: OGRID: Blackbuck New Mexico LLC 373619 3200 Southwest Freeway Action Number: Houston, TX 77027 356578 Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

CONDITIONS

Created By	Condition	Condition Date
scwells	Remediation closure approved. Sampling notices were submitted for 5/24, 5/28, 6/3 and 6/5/24, however samples were also collected on 5/30, 6/4 and 6/7. No sampling notice was submitted for 5/30, 6/4 and 6/7/24. A sampling notice should be submitted at least two business days prior to collection for each date that confirmation samples are collected.	7/2/2024
scwells	Operator failed to provide proper Sampling Notification pursuant to 19.15.29.12.D.(1).(a) NMAC. Failure to provide proper sampling notice is a compliance issue and OCD may pursue compliance actions pursuant to 19.15.5 NMAC. Operator shall ensure future compliance with 19.15.29.12.D.(1).(a) NMAC	7/2/2024