

Rio State 3 (30-015-33690)
Specific Justification for Volumes

The total volume released was 87 bbls of produced oil (68.4 bbls) and water (18.6 bbls). The total volume recovered was 25.5 bbls consisting of 11.5 bbls oil and 14 bbls water.

208.8 bbl tank (1.16 bbl/in)

Date	Gauge	Bbbls	Oil	Water	Lost Oil	Lost Water
1/2/2022	1' 10"	25.5	11.5	14	56.9	4.6
1/1/2022	6'3"	87	68.4	18.6		



McNabb Partners, LLC
Hobbs • Carlsbad • Midland
575.397.0050
www.mcnabbpartnersllc.com

September 25, 2024

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

RE: Closure Report
Incident ID: nAPP2202454641
Rio State #3 Tank Battery
Lat/Long: 32.708155, -104.546172
Project ID: 20220103-murchison-RioState3

NMOCD:

McNabb Partners LLC submits this closure request for above incident on behalf of Murchison Oil and Gas, LLC.

This report includes remediation action and sampling activities conducted at the Rio State #3 Tank Battery production site. McNabb Partners relied upon the submitted characterization and remediation plan submitted by Hungry Horse and approved by NMOCD on 06/17/2024.

- Remediation plan is included in Appendix C.

1. Remediation Activities and Confirmation Sampling

Remediation activities began on June 25, 2024. Plate 1 shows:

- Remediation extent (with depths) relative to the release extent as mapped by Hungry Horse.
- Confirmation soil sample locations.

Closure Criteria for the site according to Table I in 19.29.12.12 NMAC is listed below:

High Karst Potential	Chloride (mg/kg)	GRO+DRO (mg/kg)	TPH Ext. (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)
NMOCD Closure Criteria	600	--	100	10	50



Rio State #3
Incident #: nAPP2202454641

Confirmation sampling was conducted along with the excavation activities. The confirmation soil samples (5-point composite) were collected every 200 square feet (or less) from the excavation bases and sidewalls and analyzed for TPH, BTEX and chloride by a certified laboratory.

On June 26, 2024, 3 confirmation samples were collected from the base of the excavation at 5 ft bgs (i.e., BS-01, BS-02 and BS-03) and 4 confirmation samples were collected from the walls of the excavation (i.e., SW-01 through SW-04). Analytical results indicate that samples BS-01 and SW-01 through SW-03 exceed NMOCD closure criteria for TPH and/or BTEX concentrations. Following the receipt of analytical data, 200 square feet areas represented by these samples were excavated further vertically and horizontally.

On June 28, 2024, 6 confirmation samples (WS-08 and WS-09 at depths of 0-2, 2-4 and 6 ft bgs) were collected from the walls of the excavation. Analytical results indicate that these samples exceeded TPH concentrations. Due to the presence of tank on top of the affected areas, these side walls could not be excavated any further at that time without causing major facility deconstruction.

On July 2, 2024, 4 confirmation samples were collected from the base of the excavation at 4 ft bgs (i.e., BS-04 through BS-07) and 8 confirmation samples were collected from the walls of the excavation (i.e., WS-03 through WS-07 at depths of 0-2 and 2-4 ft bgs). Analytical results indicate that all samples met concentrations listed in Table I (19.15.29 NMAC).

On July 8, 2024, 11 confirmation samples (WS-01, WS-02, WS-07 at depths of 0-2, 2-4 and 6 ft; and WS-10 at depths of 0-2 and 2-4 ft bgs) were collected from the walls of the excavation. Analytical results indicate that all samples met concentrations listed in Table I (19.15.29 NMAC).

Excavation activities in impacted areas of BS-01, WS-08 and WS-09 resumed after the storage tank was removed from the battery containment. Following the completion of the excavation in these affected areas, McNabb Partners collected final confirmation samples on September 18, 2024). 3 confirmation soil samples were collected from the base of the excavation (i.e., BS-01 at 12 ft bgs, BS-08 at 5 ft bgs, BS-09 at 5 ft bgs) and 8 confirmation soil samples were collected from the walls of the excavation (i.e., WS-01 at 6-9 and 9-12 ft bgs, WS-07 at 6-9 and 9-12 ft bgs, WS-08A at 0-2 and 2-5 ft bgs, and WS-09A at 0-2 and 2-5 ft bgs). Analytical results indicate that all samples met concentrations listed in Table I (19.15.29 NMAC) therefore all impacted soils were removed from the affected area of release.

Clean non-waste containing caliche was used for backfill material to restore the surface to an active production pad for oil and gas operations. Please refer to the composite sample "Backfill" in the Table A.

- Confirmation sample results are included in Table A Summary of Analytical.
- Certificate of Analysis for confirmation samples are included in Appendix B.
- All sampling notifications are included in Appendix A.



Rio State #3
Incident #: nAPP2202454641

2. Closure Request

Remediation Closure Request	
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?	Yes
What was the total surface area (in sq ft) remediated?	1,635
What was the total volume (cubic yards) remediated?	600
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of 4 ft non waste containing material with concentration less than 600 mg/kg chlorides?	Yes
What was the total surface area (in sq ft) reclaimed?	1,635
What was the total volume (in cubic yards) reclaimed?	600
Summarize any addition remediation activities not included in answers above	Dig and haul disposal

On behalf of Murchison Oil & Gas, we respectfully request a closure for the incident ID: nAPP2202454641. Based on the remedial action activities and confirmation samples analytical results, the Site is compliant with applicable closure requirements set forth in rule 19.15.19.12 NMAC and no further actions are required at the site.

When the production site is no longer in use for oil and gas operations, the surface will be remediated, restored, reclaimed and revegetated per 19.15.29.12 and 19.15.29.13 NMAC.

Please contact me with any questions.

Sincerely,

Dimitry Nikanorov
Environmental Manager
McNabb Partners
(917) 497-6890



Cc: Murchison Oil and Gas, LLC

September 25, 2024

Page 3 of 4



Rio State #3
Incident #: nAPP2202454641



Figure 1. Final Excavation.



Figure 2. Final Excavation.



Figure 3. Final Excavation.



Figure 4. Final Excavation.



Figure 5. Final Excavation before backfilling.

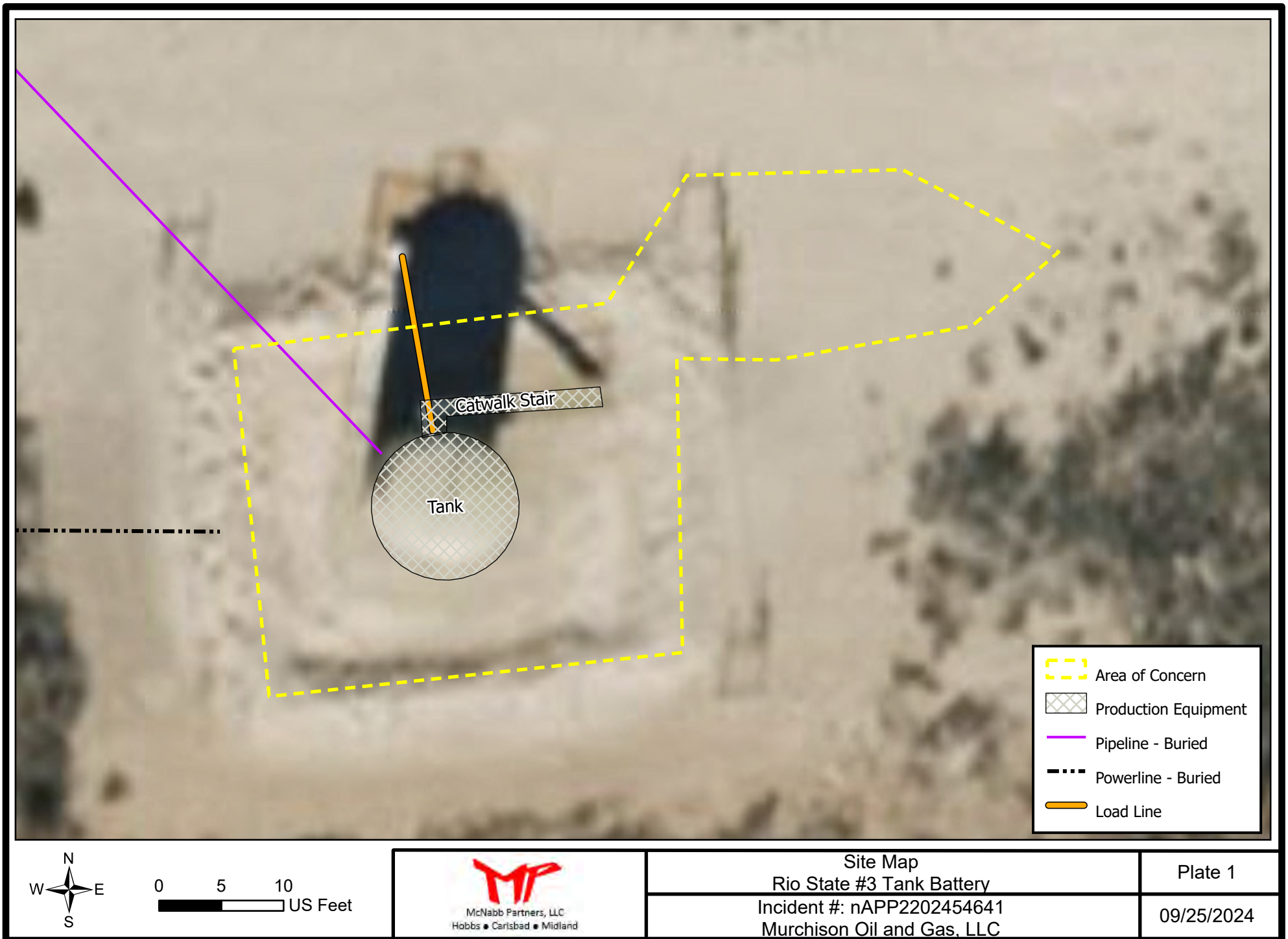


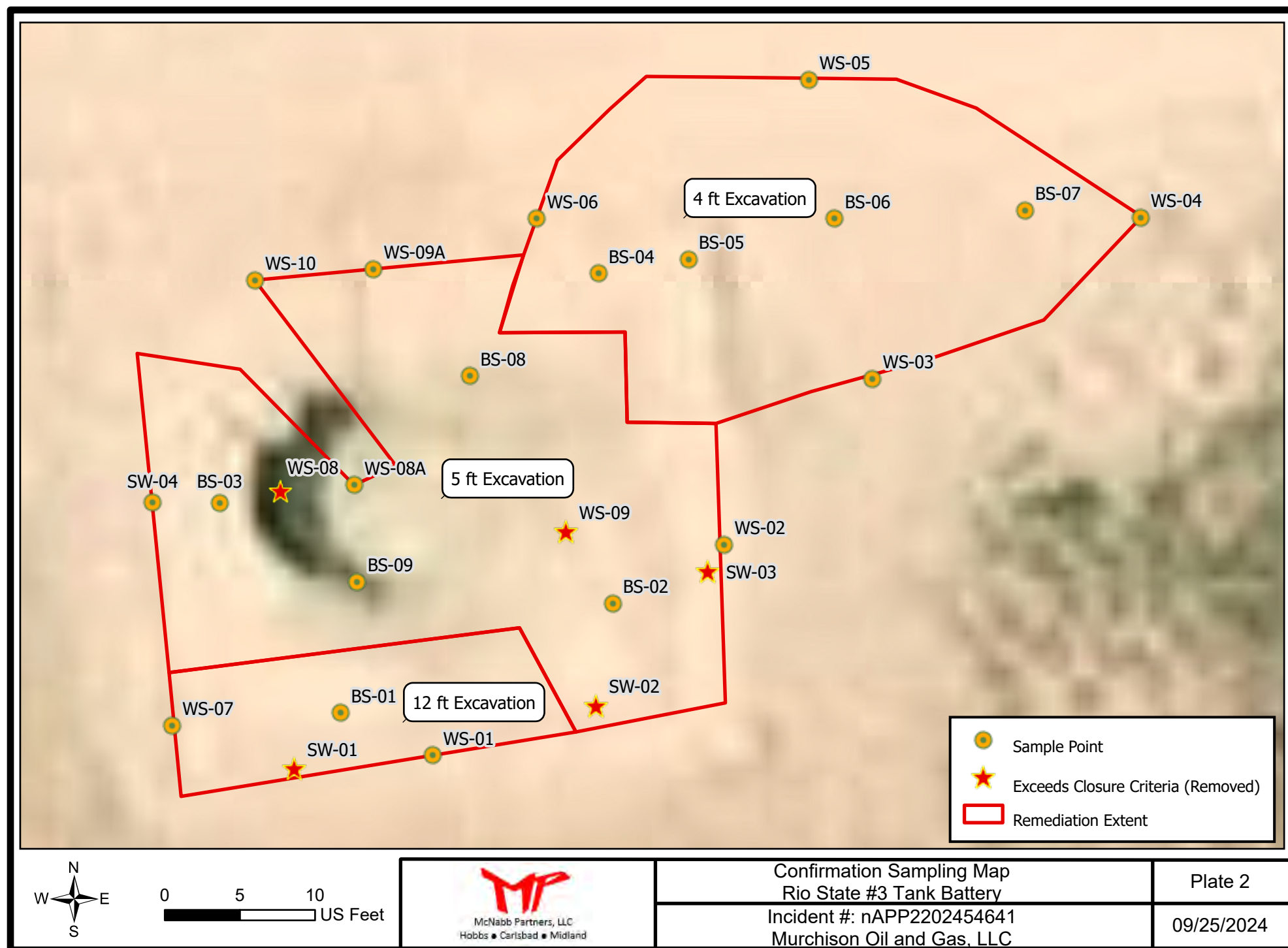
Figure 6. Final Excavation before backfilling.

Plates



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Tables



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Table A
Summary of AnalyticalRio State #3
napp2202454641

Sample ID	Date	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	Location	Chloride (mg/kg)	GRO+DRO (mg/kg)	TPH Ext. (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	Comments	Lab	Lab #
NMOCD Closure Criteria						600	--	100	10	50			
BS-01	6/26/2024	5			Base	16	<5640	<5671.4	<1	62	Removed	Cardinal	H243870
BS-01	7/8/2024	6			Base	80	331.3	<341.3	<0.05	<0.3	Removed	Cardinal	H244041
BS-01	7/30/2024	7			Grab	57.3	<50	<50.0	<0.00202	0.11	Removed	Eurofins	890-6964-1
BS-01	7/30/2024	8			Grab	74.7	2969	2970	<0.00201	12.8	Removed	Eurofins	890-6964-1
BS-01	7/30/2024	9			Grab	150	2217	2220	<0.00200	17.4	Removed	Eurofins	890-6964-1
BS-01	7/30/2024	10			Grab	114	1300	1300	<0.00199	13.7	Removed	Eurofins	890-6964-1
BS-01	7/30/2024	11			Grab	138	97.1	97.1	<0.00199	0.197	Removed	Eurofins	890-6964-1
BS-01	7/30/2024	12			Grab	5.26	<50	<50.0	<0.00202	0.0145	Removed	Eurofins	890-6964-1
BS-01	9/18/2024	12			Base	32	12	12	<0.05	<0.3		Cardinal	H245673
BS-02	6/26/2024	5			Base	16	<55	<65	<0.05	0.318		Cardinal	H243870
BS-03	6/26/2024	5			Base	208	<20	<30	<0.05	<0.3		Cardinal	H243870
BS-04	7/2/2024	4			Base	80	<20	<30	<0.05	<0.3		Cardinal	H244017
BS-05	7/2/2024	4			Base	64	<20	<30	<0.05	<0.3		Cardinal	H244017
BS-06	7/2/2024	4			Base	80	<20	<30	<0.05	<0.3		Cardinal	H244017
BS-07	7/2/2024	4			Base	80	<20	<30	<0.05	<0.3		Cardinal	H244017
BS-08	9/18/2024	5			Base	16	50.9	50.9	<0.05	<0.3		Cardinal	H245673
BS-09	9/18/2024	5			Base	32	36.1	36.1	<0.05	<0.3		Cardinal	H245673
SW-01	6/26/2024		0	5	Wall	48	<1802	<1812	<0.05	5.37	Removed	Cardinal	H243870
SW-02	6/26/2024		0	5	Wall	16	9360	9406.1	<1	126	Removed	Cardinal	H243870
SW-03	6/26/2024		0	5	Wall	32	<4220	<4240.2	<0.5	37.3	Removed	Cardinal	H243870
SW-04	6/26/2024		0	5	Wall	32	<20	<30	<0.05	<0.3		Cardinal	H243870
WS-01	7/8/2024		0	2	Wall	32	<20	<30	<0.05	<0.3		Cardinal	H244041
WS-01	7/8/2024		2	4	Wall	304	<20	<30	<0.05	<0.3		Cardinal	H244041
WS-01	7/8/2024	6			Wall	144	<20	<30	<0.05	<0.3		Cardinal	H244041
WS-01	9/18/2024		6	9	Wall	16	<20	<30	<0.05	<0.3		Cardinal	H245673
WS-01	9/18/2024		9	12	Wall	64	<20	<30	<0.05	<0.3		Cardinal	H245673
WS-02	7/8/2024		0	2	Wall	176	<27.7	<37.7	<0.05	<0.3		Cardinal	H244041
WS-02	7/8/2024		2	4	Wall	80	<20	<30	<0.05	<0.3		Cardinal	H244041
WS-02	7/8/2024	6			Wall	48	<20	<30	<0.05	<0.3		Cardinal	H244041
WS-03	7/2/2024		0	2	Wall	96	<20	<30	<0.05	<0.3		Cardinal	H244017
WS-03	7/2/2024		2	4	Wall	448	<20	<30	<0.05	<0.3		Cardinal	H244017
WS-04	7/2/2024		0	2	Wall	160	<20	<30	<0.05	<0.3		Cardinal	H244017
WS-04	7/2/2024		2	4	Wall	64	<20	<30	<0.05	<0.3		Cardinal	H244017
WS-05	7/2/2024		0	2	Wall	48	<20	<30	<0.05	<0.3		Cardinal	H244017
WS-05	7/2/2024		2	4	Wall	48	<20	<30	<0.05	<0.3		Cardinal	H244017
WS-06	7/2/2024		0	2	Wall	64	<34.4	<44.4	<0.05	<0.3		Cardinal	H244017
WS-06	7/2/2024		2	4	Wall	160	<20	<30	<0.05	<0.3		Cardinal	H244017

Table A
Summary of Analytical

Rio State #3
napp2202454641

Sample ID	Date	Discrete Depth (Feet)	Top Depth (Feet)	Bottom Depth (Feet)	Location	Chloride (mg/kg)	GRO+DRO (mg/kg)	TPH Ext. (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	Comments	Lab	Lab #
NMOCD Closure Criteria						600	--	100	10	50			
WS-07	7/8/2024		0	2	Wall	16	<20	<30	<0.05	<0.3		Cardinal	H244041
WS-07	7/8/2024		2	4	Wall	128	<20	<30	<0.05	<0.3		Cardinal	H244041
WS-07	7/8/2024	6			Wall	96	<20	<30	<0.05	<0.3		Cardinal	H244041
WS-07	9/18/2024		6	9	Wall	16	<20	<30	<0.05	<0.3		Cardinal	H245673
WS-07	9/18/2024		9	12	Wall	64	<20	<30	<0.05	<0.3		Cardinal	H245673
WS-08	6/28/2024		0	2	Wall	16	328.2	<338.2	<0.05	3.98	Removed	Cardinal	H243921
WS-08	6/28/2024		2	4	Wall	<16	2882	2905.9	<0.1	49.1	Removed	Cardinal	H243921
WS-08	6/28/2024	5			Wall	<16	2518	<2528	<0.05	12.4	Removed	Cardinal	H243921
WS-09	6/28/2024		0	2	Wall	112	2634.9	2727.6	<0.05	0.696	Removed	Cardinal	H243921
WS-09	6/28/2024		2	4	Wall	16	4130	4156.8	<0.05	12.9	Removed	Cardinal	H243921
WS-09	6/28/2024	5			Wall	16	<49.7	<59.7	<0.05	<0.3	Removed	Cardinal	H243921
WS-08A	9/18/2024		0	2	Wall	48	<20	<30	<0.05	<0.3		Cardinal	H245673
WS-08A	9/18/2024		2	5	Wall	16	<20	<30	<0.05	<0.3		Cardinal	H245673
WS-09A	9/18/2024		0	2	Wall	64	<20	<30	<0.05	<0.3		Cardinal	H245673
WS-09A	9/18/2024		2	5	Wall	16	<20	<30	<0.05	<0.3		Cardinal	H245673
WS-10	7/8/2024		0	2	Wall	32	<20	<30	<0.05	<0.3		Cardinal	H244041
WS-10	7/8/2024		2	4	Wall	16	<20	<30	<0.05	<0.3		Cardinal	H244041
Backfill	6/25/2024				Backfill	304	<20	<30	<0.05	<0.3		Cardinal	H243842
Exceeds Closure Criteria													

Appendix A

Communications



McNabb Partners, LLC
Hobbs • Carlsbad • Midland

Cindy Cottrell

From: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Sent: Friday, September 13, 2024 8:59 AM
To: Cindy Cottrell
Cc: Greg Boans; andrew@mcnabbpartners.com; Dmitry Nikanorov
Subject: RE: [EXTERNAL] nAPP2202454641 Rio State #3 (30-015-33690)

Good morning Cindy,

The extension request for 9/30/24 is approved. Please include a copy of this correspondence in the remediation closure report.

Thank you,

Brittany Hall ● Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.517.5333 | Brittany.Hall@emnrd.nm.gov
<http://www.emnrd.nm.gov/ocd/>

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMNRD Website prior to submitting any C-141s. The guidance documents can be found at <https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/> or <https://www.emnrd.nm.gov/ocd/ocd-forms/>.

From: Cindy Cottrell <ccottrell@jdmii.com>
Sent: Friday, September 13, 2024 7:23 AM
To: Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>
Cc: Greg Boans <gboans@jdmii.com>; andrew@mcnabbpartners.com; Dmitry Nikanorov <Dmitry@mcnabbpartners.com>
Subject: [EXTERNAL] nAPP2202454641 Rio State #3 (30-015-33690)

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

Brittany,

The closure report for Rio State #3 is due on Monday, 9/16/24. The tank has been removed and excavation is in progress. May we please have an extension until 9/30/24 in order to complete excavation and obtain confirmation samples?

Thank you for your consideration.



Cindy Cottrell
Regulatory Coordinator & Corporate Secretary
7250 Dallas Parkway, Suite 1400
Plano, TX 75024
Direct Line: 469-573-6413

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
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District III

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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 356504

QUESTIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 356504
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2202454641
Incident Name	NAPP2202454641 RIO STATE 3 @ 30-015-33690
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Well	[30-015-33690] RIO STATE #003

Location of Release Source	
Site Name	RIO STATE 3
Date Release Discovered	01/03/2022
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	1,500
What is the estimated number of samples that will be gathered	20
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/25/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	Please contact dimitry@mcnabbpartners.com if needed. 917-497-6890
Please provide any information necessary for navigation to sampling site	GPS Coordinates: 32.7081068, -104.5461455

District I
1625 N. French Dr., Hobbs, NM 88240
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Santa Fe, NM 87505

CONDITIONS

Action 356504

CONDITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 356504
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aparkernp	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	6/21/2024

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

QUESTIONS

Action 358916

QUESTIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 358916
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2202454641
Incident Name	NAPP2202454641 RIO STATE 3 @ 30-015-33690
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Well	[30-015-33690] RIO STATE #003

Location of Release Source	
Site Name	RIO STATE 3
Date Release Discovered	01/03/2022
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	1,500
What is the estimated number of samples that will be gathered	20
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	06/28/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Please contact dimitry@mcnabbpartners.com if needed. 917-497-6890 Sampling will continue into 6/28/2024
Please provide any information necessary for navigation to sampling site	GPS Coordinates: 32.7081068, -104.5461455

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

CONDITIONS

Action 358916

CONDITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 358916
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aparkernp	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	6/26/2024

District I

1625 N. French Dr., Hobbs, NM 88240
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Santa Fe, NM 87505

QUESTIONS

Action 359510

QUESTIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 359510
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2202454641
Incident Name	NAPP2202454641 RIO STATE 3 @ 30-015-33690
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Well	[30-015-33690] RIO STATE #003

Location of Release Source

Site Name	RIO STATE 3
Date Release Discovered	01/03/2022
Surface Owner	Private

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

What is the sampling surface area in square feet	1,500
What is the estimated number of samples that will be gathered	20
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/02/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	Please contact dimitry@mcnabbpartners.com if needed. 917-497-6890 or Andrew Parker 970-579-9535 Delays in excavation efforts have effected the dates and times of sampling. Project is taking longer than anticipated to ensure human health and safety around production equipment.
Please provide any information necessary for navigation to sampling site	GPS Coordinates: 32.7081068, -104.5461455

District I
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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 359510

CONDITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 359510
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aparkernp	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	6/28/2024

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 360579

QUESTIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 360579
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2202454641
Incident Name	NAPP2202454641 RIO STATE 3 @ 30-015-33690
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Well	[30-015-33690] RIO STATE #003

Location of Release Source

Site Name	RIO STATE 3
Date Release Discovered	01/03/2022
Surface Owner	Private

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

What is the sampling surface area in square feet	1,500
What is the estimated number of samples that will be gathered	15
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/08/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	Christopher Turner. 575-441-0080
Please provide any information necessary for navigation to sampling site	GPS Coordinates: 32.7081068, -104.5461455

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 360579

CONDITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 360579
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aparkernp	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	7/2/2024

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 367510

QUESTIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 367510
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2202454641
Incident Name	NAPP2202454641 RIO STATE 3 @ 30-015-33690
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Well	[30-015-33690] RIO STATE #003

Location of Release Source	
Site Name	RIO STATE 3
Date Release Discovered	01/03/2022
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	200
What is the estimated number of samples that will be gathered	3
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/30/2024
Time sampling will commence	08:30 AM
Please provide any information necessary for observers to contact samplers	dimitry@mcnabbpartners.com if needed. 917-497- 6890
Please provide any information necessary for navigation to sampling site	32.7081068, -104.5461455

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 367510

CONDITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 367510
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aparkernp	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	7/25/2024

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 383715

QUESTIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 383715
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2202454641
Incident Name	NAPP2202454641 RIO STATE 3 @ 30-015-33690
Incident Type	Oil Release
Incident Status	Remediation Plan Approved
Incident Well	[30-015-33690] RIO STATE #003

Location of Release Source	
Site Name	RIO STATE 3
Date Release Discovered	01/03/2022
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	1,000
What is the estimated number of samples that will be gathered	8
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/18/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	Please contact Dmitry at 9174976890 or dimitry@mcnabbpartners.com if neccessary
Please provide any information necessary for navigation to sampling site	GPS coordinates of the excavation area: 32.708155, -104.546108

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
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
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1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 383715

CONDITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 383715
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aparkernp	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	9/16/2024

Appendix B

Certificates of Analysis



McNabb Partners, LLC
Hobbs • Carlsbad • Midland



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 03, 2024

ANDREW PARKER
MC NABB SERVICES
P. O. BOX 5753
HOBBS, NM 88240

RE: RIO STATE #3

Enclosed are the results of analyses for samples received by the laboratory on 06/26/24 16:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene
Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received: 06/26/2024
 Reported: 07/03/2024
 Project Name: RIO STATE #3
 Project Number: NONE GIVEN
 Project Location: EDDY CO., NM

Sampling Date: 06/25/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Alyssa Parras

Sample ID: BACKFILL (H243842-01)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/02/2024	ND	1.91	95.4	2.00	5.30		
Toluene*	<0.050	0.050	07/02/2024	ND	1.91	95.3	2.00	6.40		
Ethylbenzene*	<0.050	0.050	07/02/2024	ND	2.04	102	2.00	7.16		
Total Xylenes*	<0.150	0.150	07/02/2024	ND	5.98	99.7	6.00	7.39		
Total BTEx	<0.300	0.300	07/02/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	07/02/2024	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	07/02/2024	ND	185	92.4	200	3.66	
DRO >C10-C28*	<10.0	10.0	07/02/2024	ND	174	87.2	200	13.7	
EXT DRO >C28-C36	<10.0	10.0	07/02/2024	ND					

Surrogate: 1-Chlorooctane 99.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.8 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client'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 whatsoever 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, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is 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.

Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client'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 whatsoever 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, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is 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.

A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

[illegible]

PLEASE NOTE: Liability proceedings, including liability and direct services, must be filed in the court in which the claim is made. All claims, including those for negligence and any other cause, shall be filed in the court in which the claim is made. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by clients, its subsidiaries, or any of the above stated reasons or otherwise.

Relinquished By: <i>[Signature]</i> Relinquished By: _____									
Date: <i>6/26</i>		Received By: <i>[Signature]</i>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #: _____		All Results are emailed. Please provide Email address: _____	
Time: <i>16:45</i>		Date: _____		REMARKS: _____		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Time: _____		Received By: _____		Turnaround Time: _____		Thermometer ID #140 _____		Correction Factor 0°C _____	
Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____		Observed Temp. °C <i>5.9</i> Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Bacteria (only) Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Thermometer ID #140 _____	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Thermometer ID #140 _____	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °C _____ Corrected Temp. °C _____		Sample Condition Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: <i>[Signature]</i>		Turnaround Time: _____		Standard <i>Rush</i> <input checked="" type="checkbox"/>	
Observed Temp. °									

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 01, 2024

DIMITRY NIKANOROV

MC NABB SERVICES

P. O. BOX 5753

HOBBS, NM 88240

RE: RIO STATE #3

Enclosed are the results of analyses for samples received by the laboratory on 06/27/24 16:22.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received: 06/27/2024
 Reported: 07/01/2024
 Project Name: RIO STATE #3
 Project Number: NONE GIVEN
 Project Location: EDDY CO., NM

Sampling Date: 06/26/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BS - 01 5 (H243870-01)

BTX 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	06/29/2024	ND	1.97	98.7	2.00	10.2	
Toluene*	2.28	1.00	06/29/2024	ND	1.97	98.3	2.00	9.33	GC-NC1
Ethylbenzene*	13.5	1.00	06/29/2024	ND	2.07	104	2.00	8.85	GC-NC1
Total Xylenes*	46.2	3.00	06/29/2024	ND	6.11	102	6.00	8.58	GC-NC1
Total BTX	62.0	6.00	06/29/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 144 % 71.5-134

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	06/28/2024	ND	416	104	400	3.92	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2270	10.0	06/28/2024	ND	170	84.8	200	1.84	
DRO >C10-C28*	3370	10.0	06/28/2024	ND	176	87.9	200	4.71	
EXT DRO >C28-C36	31.4	10.0	06/28/2024	ND					

Surrogate: 1-Chlorooctane 339 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received: 06/27/2024
 Reported: 07/01/2024
 Project Name: RIO STATE #3
 Project Number: NONE GIVEN
 Project Location: EDDY CO., NM

Sampling Date: 06/26/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BS - 02 5 (H243870-02)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2024	ND	1.97	98.7	2.00	10.2	
Toluene*	<0.050	0.050	06/29/2024	ND	1.97	98.3	2.00	9.33	
Ethylbenzene*	0.104	0.050	06/29/2024	ND	2.07	104	2.00	8.85	GC-NC1
Total Xylenes*	0.214	0.150	06/29/2024	ND	6.11	102	6.00	8.58	GC-NC1
Total BTEX	0.318	0.300	06/29/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/28/2024	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	06/28/2024	ND	170	84.8	200	1.84	
DRO >C10-C28*	45.0	10.0	06/28/2024	ND	176	87.9	200	4.71	
EXT DRO >C28-C36	<10.0	10.0	06/28/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 122 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received: 06/27/2024
 Reported: 07/01/2024
 Project Name: RIO STATE #3
 Project Number: NONE GIVEN
 Project Location: EDDY CO., NM

Sampling Date: 06/26/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 01 0-5 (H243870-03)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/29/2024	ND	1.97	98.7	2.00	10.2		
Toluene*	0.090	0.050	06/29/2024	ND	1.97	98.3	2.00	9.33	GC-NC1	
Ethylbenzene*	1.50	0.050	06/29/2024	ND	2.07	104	2.00	8.85	GC-NC1	
Total Xylenes*	3.78	0.150	06/29/2024	ND	6.11	102	6.00	8.58	GC-NC1	
Total BTEX	5.37	0.300	06/29/2024	ND						GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 235 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/28/2024	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	372	10.0	06/28/2024	ND	170	84.8	200	1.84	
DRO >C10-C28*	1430	10.0	06/28/2024	ND	176	87.9	200	4.71	
EXT DRO >C28-C36	<10.0	10.0	06/28/2024	ND					

Surrogate: 1-Chlorooctane 166 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received: 06/27/2024
 Reported: 07/01/2024
 Project Name: RIO STATE #3
 Project Number: NONE GIVEN
 Project Location: EDDY CO., NM

Sampling Date: 06/26/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 02 0-5 (H243870-04)

BTEx 8021B		mg/kg	Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	06/29/2024	ND	1.97	98.7	2.00	10.2	S-04
Toluene*	5.11	1.00	06/29/2024	ND	1.97	98.3	2.00	9.33	GC-NC1, S-04
Ethylbenzene*	27.1	1.00	06/29/2024	ND	2.07	104	2.00	8.85	GC-NC1, S-04
Total Xylenes*	93.4	3.00	06/29/2024	ND	6.11	102	6.00	8.58	GC-NC1, S-04
Total BTEX	126	6.00	06/29/2024	ND					GC-NC1, S-04

Surrogate: 4-Bromofluorobenzene (PID) 180 % 71.5-134

Chloride, SM4500Cl-B		mg/kg	Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/28/2024	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	3990	10.0	06/28/2024	ND	170	84.8	200	1.84	
DRO >C10-C28*	5370	10.0	06/28/2024	ND	176	87.9	200	4.71	
EXT DRO >C28-C36	46.1	10.0	06/28/2024	ND					

Surrogate: 1-Chlorooctane 490 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received: 06/27/2024
 Reported: 07/01/2024
 Project Name: RIO STATE #3
 Project Number: NONE GIVEN
 Project Location: EDDY CO., NM

Sampling Date: 06/26/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 03 0-5 (H243870-05)

BTEx 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	06/29/2024	ND	1.97	98.7	2.00	10.2	S-04
Toluene*	0.985	0.500	06/29/2024	ND	1.97	98.3	2.00	9.33	GC-NC1, S-04
Ethylbenzene*	7.19	0.500	06/29/2024	ND	2.07	104	2.00	8.85	GC-NC1, S-04
Total Xylenes*	29.1	1.50	06/29/2024	ND	6.11	102	6.00	8.58	GC-NC1, S-04
Total BTEX	37.3	3.00	06/29/2024	ND					GC-NC1, S-04

Surrogate: 4-Bromofluorobenzene (PID) 169 % 71.5-134

Chloride, SM4500Cl-B			mg/kg		Analyzed By: CT				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/28/2024	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*	1520	10.0	06/28/2024	ND	170	84.8	200	1.84	
DRO >C10-C28*	2700	10.0	06/28/2024	ND	176	87.9	200	4.71	
EXT DRO >C28-C36	20.2	10.0	06/28/2024	ND					

Surrogate: 1-Chlorooctane 280 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received: 06/27/2024
 Reported: 07/01/2024
 Project Name: RIO STATE #3
 Project Number: NONE GIVEN
 Project Location: EDDY CO., NM

Sampling Date: 06/27/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: BS - 03 5 (H243870-06)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/29/2024	ND	1.97	98.7	2.00	10.2		
Toluene*	<0.050	0.050	06/29/2024	ND	1.97	98.3	2.00	9.33		
Ethylbenzene*	<0.050	0.050	06/29/2024	ND	2.07	104	2.00	8.85		
Total Xylenes*	<0.150	0.150	06/29/2024	ND	6.11	102	6.00	8.58		
Total BTEX	<0.300	0.300	06/29/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 71.5-134

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	06/28/2024	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	06/28/2024	ND	170	84.8	200	1.84	
DRO >C10-C28*	<10.0	10.0	06/28/2024	ND	176	87.9	200	4.71	
EXT DRO >C28-C36	<10.0	10.0	06/28/2024	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 132 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received: 06/27/2024
 Reported: 07/01/2024
 Project Name: RIO STATE #3
 Project Number: NONE GIVEN
 Project Location: EDDY CO., NM

Sampling Date: 06/27/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SW - 04 0-5 (H243870-07)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/29/2024	ND	1.97	98.7	2.00	10.2	
Toluene*	<0.050	0.050	06/29/2024	ND	1.97	98.3	2.00	9.33	
Ethylbenzene*	<0.050	0.050	06/29/2024	ND	2.07	104	2.00	8.85	
Total Xylenes*	<0.150	0.150	06/29/2024	ND	6.11	102	6.00	8.58	
Total BTEX	<0.300	0.300	06/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/28/2024	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	06/28/2024	ND	170	84.8	200	1.84	
DRO >C10-C28*	<10.0	10.0	06/28/2024	ND	176	87.9	200	4.71	
EXT DRO >C28-C36	<10.0	10.0	06/28/2024	ND					

Surrogate: 1-Chlorooctane 94.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
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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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 08, 2024

ANDREW PARKER
MC NABB SERVICES
P. O. BOX 5753
HOBBS, NM 88240

RE: RIO STATE #3

Enclosed are the results of analyses for samples received by the laboratory on 06/28/24 16:24.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene
Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	06/28/2024	Sampling Date:	06/28/2024
Reported:	07/08/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS - 08 0-2' (H243921-01)

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/05/2024	ND	1.99	99.5	2.00	2.10	
Toluene*	<0.050	0.050	07/05/2024	ND	2.08	104	2.00	1.52	GC-NC
Ethylbenzene*	1.42	0.050	07/05/2024	ND	2.12	106	2.00	0.805	GC-NC1
Total Xylenes*	2.57	0.150	07/05/2024	ND	6.25	104	6.00	0.851	GC-NC1
Total BTX	3.98	0.300	07/05/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 201 % 71.5-134

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	07/05/2024	ND	416	104	400	3.92	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	73.2	10.0	07/03/2024	ND	217	109	200	0.908	
DRO >C10-C28*	255	10.0	07/03/2024	ND	215	108	200	0.0195	QM-07
EXT DRO >C28-C36	<10.0	10.0	07/03/2024	ND					

Surrogate: 1-Chlorooctane 113 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	06/28/2024	Sampling Date:	06/28/2024
Reported:	07/08/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS - 08 2-4' (H243921-02)

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	07/06/2024	ND	1.99	99.5	2.00	2.10	
Toluene*	<0.100	0.100	07/06/2024	ND	2.08	104	2.00	1.52	GC-NC
Ethylbenzene*	9.80	0.100	07/06/2024	ND	2.12	106	2.00	0.805	GC-NC1
Total Xylenes*	39.3	0.300	07/06/2024	ND	6.25	104	6.00	0.851	GC-NC1
Total BTEX	49.1	0.600	07/06/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 445 % 71.5-134

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	07/05/2024	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	782	10.0	07/03/2024	ND	217	109	200	0.908	
DRO >C10-C28*	2100	10.0	07/03/2024	ND	215	108	200	0.0195	
EXT DRO >C28-C36	23.9	10.0	07/03/2024	ND					

Surrogate: 1-Chlorooctane 188 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	06/28/2024	Sampling Date:	06/28/2024
Reported:	07/08/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS - 08 5' (H243921-03)

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/04/2024	ND	1.91	95.5	2.00	0.998	
Toluene*	<0.050	0.050	07/04/2024	ND	1.90	95.2	2.00	1.52	GC-NC
Ethylbenzene*	2.80	0.050	07/04/2024	ND	2.01	100	2.00	1.63	GC-NC1, QM-07
Total Xylenes*	9.59	0.150	07/04/2024	ND	5.92	98.7	6.00	1.58	GC-NC1, QM-07
Total BTEx	12.4	0.300	07/04/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 344 % 71.5-134

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	07/05/2024	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	758	10.0	07/03/2024	ND	217	109	200	0.908	
DRO >C10-C28*	1760	10.0	07/03/2024	ND	215	108	200	0.0195	
EXT DRO >C28-C36	<10.0	10.0	07/03/2024	ND					

Surrogate: 1-Chlorooctane 175 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	06/28/2024	Sampling Date:	06/28/2024
Reported:	07/08/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS - 09 0-2' (H243921-04)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/04/2024	ND	1.91	95.5	2.00	0.998		
Toluene*	<0.050	0.050	07/04/2024	ND	1.90	95.2	2.00	1.52		
Ethylbenzene*	0.174	0.050	07/04/2024	ND	2.01	100	2.00	1.63	GC-NC1	
Total Xylenes*	0.522	0.150	07/04/2024	ND	5.92	98.7	6.00	1.58	GC-NC1	
Total BTEX	0.696	0.300	07/04/2024	ND					GC-NC1	

Surrogate: 4-Bromofluorobenzene (PID) 123 % 71.5-134

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	07/05/2024	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	74.9	10.0	07/03/2024	ND	217	109	200	0.908		
DRO >C10-C28*	2560	10.0	07/03/2024	ND	215	108	200	0.0195		
EXT DRO >C28-C36	92.7	10.0	07/03/2024	ND						

Surrogate: 1-Chlorooctane 109 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	06/28/2024	Sampling Date:	06/28/2024
Reported:	07/08/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS - 09 2-4' (H243921-05)

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/04/2024	ND	1.91	95.5	2.00	0.998	
Toluene*	<0.050	0.050	07/04/2024	ND	1.90	95.2	2.00	1.52	GC-NC
Ethylbenzene*	2.86	0.050	07/04/2024	ND	2.01	100	2.00	1.63	GC-NC1
Total Xylenes*	10.0	0.150	07/04/2024	ND	5.92	98.7	6.00	1.58	GC-NC1
Total BTEX	12.9	0.300	07/04/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 327 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	07/05/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1170	10.0	07/04/2024	ND	217	109	200	0.908	
DRO >C10-C28*	2960	10.0	07/04/2024	ND	215	108	200	0.0195	
EXT DRO >C28-C36	26.8	10.0	07/04/2024	ND					

Surrogate: 1-Chlorooctane 230 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	06/28/2024	Sampling Date:	06/28/2024
Reported:	07/08/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS - 09 5' (H243921-06)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/04/2024	ND	1.91	95.5	2.00	0.998	
Toluene*	<0.050	0.050	07/04/2024	ND	1.90	95.2	2.00	1.52	
Ethylbenzene*	0.079	0.050	07/04/2024	ND	2.01	100	2.00	1.63	GC-NC1
Total Xylenes*	0.196	0.150	07/04/2024	ND	5.92	98.7	6.00	1.58	GC-NC1
Total BTEX	<0.300	0.300	07/04/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/05/2024	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	07/04/2024	ND	217	109	200	0.908	
DRO >C10-C28*	39.7	10.0	07/04/2024	ND	215	108	200	0.0195	
EXT DRO >C28-C36	<10.0	10.0	07/04/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
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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A handwritten signature in black ink, appearing to read "Celey D. Keene", written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST

Lab I.D.	Sample I.D.
-----------------	--------------------

42413921

	WS-08	WS-08	WS-08	WS-09	WS-09
1	0-2 Ft C	X	X	0-2 Ft C	X
2	2-4 Ft			2-4 Ft	
3	5 Ft			5 Ft	
4	6-2 Ft			6-2 Ft	
5	2-4 Ft			2-4 Ft	
6	5 Ft			5 Ft	
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100					

Chloride
TPH (GRO + DRO + MRO)
BTEX (Benzene)

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:

Relinquished By:	<i>[Signature]</i>	Date:	4-28-24	Received By:	<i>[Signature]</i>
Relinquished By:		Date:	4-24	Received By:	

REMARKS:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp. °C

Corrected Temp. °C

Sample Condition
Cool Intact

Sample Condition
Cool Intact

CHECKED BY:
(Initials)

CHECKED BY:
(Initials)

turnaround time.

turnaround time.

Rush

Rush

Cool Intact

Cool Intact

Observed Temp.: °C

Observed Temp.: °C

1-800-800-8000 FAX 314-677-1123

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 11, 2024

ANDREW PARKER
MC NABB SERVICES
P. O. BOX 5753
HOBBS, NM 88240

RE: RIO STATE #3

Enclosed are the results of analyses for samples received by the laboratory on 07/03/24 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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. Keene
Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484Reported:
11-Jul-24 17:01

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BS - 07 4'	H244017-01	Soil	02-Jul-24 14:00	03-Jul-24 15:15
BS - 06 4'	H244017-02	Soil	02-Jul-24 14:12	03-Jul-24 15:15
BS - 05 4'	H244017-03	Soil	02-Jul-24 14:20	03-Jul-24 15:15
BS - 04 4'	H244017-04	Soil	02-Jul-24 14:24	03-Jul-24 15:15
WS - 03 0-2'	H244017-05	Soil	02-Jul-24 14:34	03-Jul-24 15:15
WS - 03 2-4'	H244017-06	Soil	02-Jul-24 14:38	03-Jul-24 15:15
WS - 04 0-2'	H244017-07	Soil	02-Jul-24 14:43	03-Jul-24 15:15
WS - 04 2-4'	H244017-08	Soil	02-Jul-24 14:47	03-Jul-24 15:15
WS - 05 0-2'	H244017-09	Soil	02-Jul-24 14:51	03-Jul-24 15:15
WS - 05 2-4'	H244017-10	Soil	02-Jul-24 14:55	03-Jul-24 15:15
WS - 06 0-2'	H244017-11	Soil	02-Jul-24 15:02	03-Jul-24 15:15
WS - 06 2-4'	H244017-12	Soil	02-Jul-24 15:09	03-Jul-24 15:15

07/11/24 - Client changed the sample date (see COC). This is the revised report and will replace the one sent on 07/10/24.

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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

BS - 07 4'
H244017-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	80.0		16.0	mg/kg	4	4070937	AC	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070904	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070904	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070904	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070904	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070904	JH	10-Jul-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134 4070904 JH 10-Jul-24 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	

Surrogate: 1-Chlorooctane 72.6 % 48.2-134 4070807 MS 09-Jul-24 8015B

Surrogate: 1-Chlorooctadecane 76.3 % 49.1-148 4070807 MS 09-Jul-24 8015B

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

BS - 06 4'
H244017-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	80.0		16.0	mg/kg	4	4070937	AC	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070904	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070904	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070904	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070904	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070904	JH	10-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			109 %	71.5-134		4070904	JH	10-Jul-24	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
Surrogate: 1-Chlorooctane			83.4 %	48.2-134		4070807	MS	09-Jul-24	8015B	
Surrogate: 1-Chlorooctadecane			87.6 %	49.1-148		4070807	MS	09-Jul-24	8015B	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

BS - 05 4'
H244017-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	64.0		16.0	mg/kg	4	4070937	AC	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	09-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	09-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	09-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	09-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	09-Jul-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			101 %	71.5-134		4070905	JH	09-Jul-24	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			90.2 %	48.2-134		4070807	MS	09-Jul-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			94.9 %	49.1-148		4070807	MS	09-Jul-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

BS - 04 4'
H244017-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	80.0		16.0	mg/kg	4	4070937	AC	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	10-Jul-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			102 %	71.5-134		4070905	JH	10-Jul-24	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			95.8 %	48.2-134		4070807	MS	09-Jul-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			104 %	49.1-148		4070807	MS	09-Jul-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

WS - 03 0-2'
H244017-05 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	96.0		16.0	mg/kg	4	4070937	AC	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	10-Jul-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			101 %	71.5-134		4070905	JH	10-Jul-24	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	

Surrogate: 1-Chlorooctane			81.5 %	48.2-134		4070807	MS	09-Jul-24	8015B	
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Surrogate: 1-Chlorooctadecane			82.8 %	49.1-148		4070807	MS	09-Jul-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

WS - 03 2-4'
H244017-06 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	448		16.0	mg/kg	4	4070930	CT	09-Jul-24	4500-Cl-B	QM-07
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	10-Jul-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134 4070905 JH 10-Jul-24 8021B

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	

Surrogate: 1-Chlorooctane 88.4 % 48.2-134 4070807 MS 09-Jul-24 8015B

Surrogate: 1-Chlorooctadecane 93.3 % 49.1-148 4070807 MS 09-Jul-24 8015B

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

WS - 04 0-2'
H244017-07 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	160		16.0	mg/kg	4	4070930	CT	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	10-Jul-24	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			100 %	71.5-134		4070905	JH	10-Jul-24	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	

<i>Surrogate: 1-Chlorooctane</i>			89.2 %	48.2-134		4070807	MS	09-Jul-24	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			91.9 %	49.1-148		4070807	MS	09-Jul-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

WS - 04 2-4'
H244017-08 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	64.0		16.0	mg/kg	4	4070930	CT	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	10-Jul-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			100 %	71.5-134		4070905	JH	10-Jul-24	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	

Surrogate: 1-Chlorooctane			91.0 %	48.2-134		4070807	MS	09-Jul-24	8015B	
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Surrogate: 1-Chlorooctadecane			96.0 %	49.1-148		4070807	MS	09-Jul-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

WS - 05 0-2'
H244017-09 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	48.0		16.0	mg/kg	4	4070930	CT	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			99.9 %	71.5-134		4070905	JH	10-Jul-24	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
Surrogate: 1-Chlorooctane			95.5 %	48.2-134		4070807	MS	09-Jul-24	8015B	
Surrogate: 1-Chlorooctadecane			99.6 %	49.1-148		4070807	MS	09-Jul-24	8015B	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

WS - 05 2-4'
H244017-10 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	48.0		16.0	mg/kg	4	4070930	CT	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	10-Jul-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			102 %	71.5-134		4070905	JH	10-Jul-24	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	

Surrogate: 1-Chlorooctane			82.6 %	48.2-134		4070807	MS	09-Jul-24	8015B	
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Surrogate: 1-Chlorooctadecane			88.1 %	49.1-148		4070807	MS	09-Jul-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

WS - 06 0-2'
H244017-11 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	64.0		16.0	mg/kg	4	4070930	CT	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	10-Jul-24	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			104 %	71.5-134		4070905	JH	10-Jul-24	8021B	
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Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	24.4		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	

Surrogate: 1-Chlorooctane			74.7 %	48.2-134		4070807	MS	09-Jul-24	8015B	
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Surrogate: 1-Chlorooctadecane			77.7 %	49.1-148		4070807	MS	09-Jul-24	8015B	
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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

WS - 06 2-4'
H244017-12 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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Cardinal Laboratories**Inorganic Compounds**

Chloride	160		16.0	mg/kg	4	4070930	CT	09-Jul-24	4500-Cl-B	
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Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Toluene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	4070905	JH	10-Jul-24	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			101 %	71.5-134		4070905	JH	10-Jul-24	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	4070807	MS	09-Jul-24	8015B	
Surrogate: 1-Chlorooctane			95.1 %	48.2-134		4070807	MS	09-Jul-24	8015B	
Surrogate: 1-Chlorooctadecane			100 %	49.1-148		4070807	MS	09-Jul-24	8015B	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

Inorganic Compounds - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4070930 - 1:4 DI Water**Blank (4070930-BLK1)**

Prepared & Analyzed: 09-Jul-24

Chloride	ND	16.0	mg/kg
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LCS (4070930-BS1)

Prepared & Analyzed: 09-Jul-24

Chloride	432	16.0	mg/kg	400	108	80-120
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LCS Dup (4070930-BSD1)

Prepared & Analyzed: 09-Jul-24

Chloride	432	16.0	mg/kg	400	108	80-120	0.00	20
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Batch 4070937 - 1:4 DI Water**Blank (4070937-BLK1)**

Prepared & Analyzed: 09-Jul-24

Chloride	ND	16.0	mg/kg
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LCS (4070937-BS1)

Prepared & Analyzed: 09-Jul-24

Chloride	416	16.0	mg/kg	400	104	80-120
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LCS Dup (4070937-BSD1)

Prepared & Analyzed: 09-Jul-24

Chloride	448	16.0	mg/kg	400	112	80-120	7.41	20
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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

Volatile Organic Compounds by EPA Method 8021 - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4070904 - Volatiles**Blank (4070904-BLK1)**

Prepared & Analyzed: 09-Jul-24

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0517		mg/kg	0.0500		103	71.5-134			

LCS (4070904-BS1)

Prepared & Analyzed: 09-Jul-24

Benzene	1.92	0.050	mg/kg	2.00		96.2	82.8-130			
Toluene	1.95	0.050	mg/kg	2.00		97.6	86-128			
Ethylbenzene	1.97	0.050	mg/kg	2.00		98.6	85.9-128			
m,p-Xylene	3.87	0.100	mg/kg	4.00		96.7	89-129			
o-Xylene	1.94	0.050	mg/kg	2.00		96.9	86.1-125			
Total Xylenes	5.81	0.150	mg/kg	6.00		96.8	88.2-128			
Surrogate: 4-Bromofluorobenzene (PID)	0.0494		mg/kg	0.0500		98.9	71.5-134			

LCS Dup (4070904-BSD1)

Prepared & Analyzed: 09-Jul-24

Benzene	2.04	0.050	mg/kg	2.00		102	82.8-130	6.01	15.8	
Toluene	2.01	0.050	mg/kg	2.00		101	86-128	3.03	15.9	
Ethylbenzene	2.03	0.050	mg/kg	2.00		102	85.9-128	3.11	16	
m,p-Xylene	3.97	0.100	mg/kg	4.00		99.2	89-129	2.47	16.2	
o-Xylene	1.99	0.050	mg/kg	2.00		99.4	86.1-125	2.51	16.7	
Total Xylenes	5.95	0.150	mg/kg	6.00		99.2	88.2-128	2.48	16.3	
Surrogate: 4-Bromofluorobenzene (PID)	0.0489		mg/kg	0.0500		97.7	71.5-134			

Batch 4070905 - Volatiles**Blank (4070905-BLK1)**

Prepared & Analyzed: 09-Jul-24

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

Volatile Organic Compounds by EPA Method 8021 - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4070905 - Volatiles**Blank (4070905-BLK1)**

Prepared & Analyzed: 09-Jul-24

Total BTEX	ND	0.300	mg/kg							
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Surrogate: 4-Bromofluorobenzene (PID)	0.0504		mg/kg	0.0500		101	71.5-134			
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LCS (4070905-BS1)

Prepared & Analyzed: 09-Jul-24

Benzene	2.01	0.050	mg/kg	2.00		101	82.8-130			
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Toluene	2.00	0.050	mg/kg	2.00		99.8	86-128			
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Ethylbenzene	2.03	0.050	mg/kg	2.00		102	85.9-128			
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m,p-Xylene	4.01	0.100	mg/kg	4.00		100	89-129			
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o-Xylene	1.99	0.050	mg/kg	2.00		99.4	86.1-125			
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Total Xylenes	6.00	0.150	mg/kg	6.00		100	88.2-128			
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Surrogate: 4-Bromofluorobenzene (PID)	0.0509		mg/kg	0.0500		102	71.5-134			
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LCS Dup (4070905-BSD1)

Prepared & Analyzed: 09-Jul-24

Benzene	1.98	0.050	mg/kg	2.00		98.9	82.8-130	1.84	15.8	
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Toluene	1.95	0.050	mg/kg	2.00		97.7	86-128	2.09	15.9	
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Ethylbenzene	1.99	0.050	mg/kg	2.00		99.5	85.9-128	2.11	16	
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m,p-Xylene	3.93	0.100	mg/kg	4.00		98.1	89-129	2.13	16.2	
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o-Xylene	1.95	0.050	mg/kg	2.00		97.7	86.1-125	1.75	16.7	
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Total Xylenes	5.88	0.150	mg/kg	6.00		98.0	88.2-128	2.00	16.3	
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Surrogate: 4-Bromofluorobenzene (PID)	0.0502		mg/kg	0.0500		100	71.5-134			
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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
P. O. BOX 5753
HOBBS NM, 88240

Project: RIO STATE #3
Project Number: 20220103-MURCHISON - RIOSTAT
Project Manager: ANDREW PARKER
Fax To: (575) 391-8484

Reported:
11-Jul-24 17:01

Petroleum Hydrocarbons by GC FID - Quality Control**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4070807 - General Prep - Organics**Blank (4070807-BLK1)**

Prepared: 08-Jul-24 Analyzed: 09-Jul-24

GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	58.4		mg/kg	50.0		117	48.2-134		
Surrogate: 1-Chlorooctadecane	65.0		mg/kg	50.0		130	49.1-148		

LCS (4070807-BS1)

Prepared: 08-Jul-24 Analyzed: 10-Jul-24

GRO C6-C10	102	10.0	mg/kg	100		102	66.4-123		
DRO >C10-C28	101	10.0	mg/kg	100		101	66.5-118		
Total TPH C6-C28	203	10.0	mg/kg	200		101	77.6-123		
Surrogate: 1-Chlorooctane	49.6		mg/kg	50.0		99.3	48.2-134		
Surrogate: 1-Chlorooctadecane	53.0		mg/kg	50.0		106	49.1-148		

LCS Dup (4070807-BSD1)

Prepared: 08-Jul-24 Analyzed: 09-Jul-24

GRO C6-C10	99.6	10.0	mg/kg	100		99.6	66.4-123	2.67	17.7
DRO >C10-C28	102	10.0	mg/kg	100		102	66.5-118	1.00	21
Total TPH C6-C28	201	10.0	mg/kg	200		101	77.6-123	0.831	18.5
Surrogate: 1-Chlorooctane	62.1		mg/kg	50.0		124	48.2-134		
Surrogate: 1-Chlorooctadecane	70.2		mg/kg	50.0		140	49.1-148		

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Celey D. Keene, Lab Director/Quality Manager

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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.
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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>McHale Par Truss</u> Project Manager: <u>Andrew Parker</u> Address: <u>On-File</u> City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____ Project #: _____ Project Owner: _____ Project Name: <u>20220103-Murchison-Rio State 3</u> Project Location: <u>Rio State 3</u> Sampler Name: <u>Christopher Turner</u>		BILL TO P.O. #: <u>20220103-Murchison-Rio State 3</u> Company: <u>McHale Par Truss</u> Attn: <u>Andrew Parker</u> Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____		ANALYSIS REQUEST	
FOR LAB USE ONLY Lab I.D. <u>H244617</u> Sample I.D.		MATRIX (G)RAB OR (C)OMP. _____ # CONTAINERS _____ GROUNDWATER _____ WASTEWATER _____ SOIL _____ OIL _____ SLUDGE _____ OTHER: _____ ACID/BASE: _____ ICE / COOL _____ OTHER: _____		PRESERV DOSE <u>07/24/24</u> <u>1400</u> TIME _____	
1 BS-07 4 Ft 1 2 BS-06 4 Ft 1 3 BS-05 4 Ft 1 4 BS-04 4 Ft 1 5 WS-03 6-2 Ft 1 6 WS-03 2-4 Ft 1 7 WS-04 6-2 Ft 1 8 WS-04 2-4 Ft 1 9 WS-05 0-2 Ft 1 10 WS-05 2-4 Ft 1		X X X X X X X X X X		Chloride TPH (GRO+DRO+MRO) BTEX (Benzene)	
Relinquished By: _____ Date: <u>7-3-24</u> Time: <u>1515</u> Received By: _____ Date: _____ Time: _____		REMARKS: <u>* Customer requested Date change 4-2-7/11/24</u>		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) <input type="checkbox"/> Sample Condition <input type="checkbox"/> Cool Intact <input type="checkbox"/> Observed Temp. °C _____ Corrected Temp. °C _____	



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: McNabb Partners		P.O. #: 202203-murchison-RioState3		BILL TO		ANALYSIS REQUEST	
Project Manager: Andrew Parker		Company: McNabb Partners					
Address: DN-File		Address: Andrew@mcnabbpartners.com					
City: _____ State: _____ Zip: _____		City: _____ State: _____ Zip: _____					
Phone #: _____ Fax #: _____		City: _____ State: _____ Zip: _____					
Project #: _____		City: _____ State: _____ Zip: _____					
Project Name: 202203-Murchison-RioState3		City: _____ State: _____ Zip: _____					
Project Location: Rio State 3		City: _____ State: _____ Zip: _____					
Sampler Name: Christopher Turner		City: _____ State: _____ Zip: _____					
FOR LAB USE ONLY		City: _____ State: _____ Zip: _____					
Lab I.D. _____		City: _____ State: _____ Zip: _____					
Sample I.D. _____		City: _____ State: _____ Zip: _____					
Date: 7-3-24		City: _____ State: _____ Zip: _____					
Time: 1515		City: _____ State: _____ Zip: _____					
Date: 7-3-24		City: _____ State: _____ Zip: _____					
Time: 1515		City: _____ State: _____ Zip: _____					
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Date: 7-3-24		City: _____ State: _____ Zip: _____					
Time: 1515		City: _____ State: _____ Zip: _____					
Date: 7-3-24		City: _____ State: _____ Zip: _____					
Time: 1515		City: _____ State: _____ Zip: _____					



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 11, 2024

ANDREW PARKER
MC NABB SERVICES
P. O. BOX 5753
HOBBS, NM 88240

RE: RIO STATE #3

Enclosed are the results of analyses for samples received by the laboratory on 07/08/24 13:39.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene
Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: BS-01 6FT (H244041-01)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839	
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774	
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885	
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820	
Total BTEX	<0.300	0.300	07/10/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	07/10/2024	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*	21.3	10.0	07/10/2024	ND	186	93.2	200	1.26	
DRO >C10-C28*	310	10.0	07/10/2024	ND	180	90.2	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -01 0-2FT (H244041-02)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

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	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26	
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND					

Surrogate: 1-Chlorooctane 96.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -01 2-4FT (H244041-03)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26		
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45		
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND						

Surrogate: 1-Chlorooctane 85.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -01 6FT (H244041-04)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26	
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND					

Surrogate: 1-Chlorooctane 78.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -02 0-2FT (H244041-05)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26		
DRO >C10-C28*	17.7	10.0	07/10/2024	ND	180	90.2	200	2.45		
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND						

Surrogate: 1-Chlorooctane 99.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -02 2-4FT (H244041-06)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26		
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45		
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND						

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -02 6FT (H244041-07)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26		
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45		
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND						

Surrogate: 1-Chlorooctane 102 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -07 0-2FT (H244041-08)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26		
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45		
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND						

Surrogate: 1-Chlorooctane 85.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -07 2-4FT (H244041-09)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26	
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND					

Surrogate: 1-Chlorooctane 99.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -07 6FT (H244041-10)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/10/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/10/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/10/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/10/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

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	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26		
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45		
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND						

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -10 0-2FT (H244041-11)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/11/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/11/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/11/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/11/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26	
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45	
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND					

Surrogate: 1-Chlorooctane 83.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 78.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

MC NABB SERVICES
 ANDREW PARKER
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	07/08/2024	Sampling Date:	07/08/2024
Reported:	07/11/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Alyssa Parras
Project Location:	EDDY CO., NM		

Sample ID: WS -10 2-4FT (H244041-12)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/11/2024	ND	1.98	98.9	2.00	0.839		
Toluene*	<0.050	0.050	07/11/2024	ND	2.18	109	2.00	0.774		
Ethylbenzene*	<0.050	0.050	07/11/2024	ND	2.23	111	2.00	0.885		
Total Xylenes*	<0.150	0.150	07/11/2024	ND	6.89	115	6.00	0.820		
Total BTEX	<0.300	0.300	07/11/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	07/10/2024	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	07/10/2024	ND	186	93.2	200	1.26		
DRO >C10-C28*	<10.0	10.0	07/10/2024	ND	180	90.2	200	2.45		
EXT DRO >C28-C36	<10.0	10.0	07/10/2024	ND						

Surrogate: 1-Chlorooctane 87.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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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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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <i>McNabb Partners</i> Project Manager: <i>Andrew Parker</i> Address: <i>On-File</i> City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____ Project #: _____ Project Owner: _____ Project Name: <i>2020105-Murchison-Rio State 3</i> Project Location: <i>Rio State 3</i> Sampler Name: <i>Christopher Turner</i>				BILL TO P.O. #: <i>2020105-Murchison-Rio State 3</i> Company: <i>McNabb Partners</i> Attn: <i>Andrew McNabb/Partners</i> Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____				ANALYSIS REQUEST			
FOR LAB USE ONLY											
Lab I.D. <i>H244001</i> <i>11</i> <i>12</i>		Sample I.D. <i>WS-10</i> <i>NS-10</i>		DATE <i>6-24-11</i> <i>2-4-11</i>		TIME <i>11:12</i> <i>11:16</i>		ANALYSIS REQUEST <i>Chloride</i> <i>TPH. (GRD+DRD+MRD)</i> <i>BTEX (Benzene)</i>			
				(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER MATRIX SOIL <input checked="" type="checkbox"/> OIL <input checked="" type="checkbox"/> SLUDGE <input checked="" type="checkbox"/> OTHER: <input checked="" type="checkbox"/>		PRESERV. ACID/BASE: <input checked="" type="checkbox"/> ICE / COOL <input checked="" type="checkbox"/> OTHER: <input checked="" type="checkbox"/>					
				DATE <i>07/08</i> <i>11:16</i>		TIME <i>11:12</i> <i>11:16</i>					
				<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>					

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Relinquished By: <i>[Signature]</i> Time: <i>1339</i> Date: _____		Received By: <i>[Signature]</i> Time: _____ Date: _____		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: _____ All Results are emailed. Please provide Email address: _____	
Relinquished By: _____ Time: _____ Date: _____		Received By: _____ Time: _____ Date: _____		REMARKS: _____	

Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____		Observed Temp. °C <i>3.6</i>		Corrected Temp. °C _____		Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		CHECKED BY: <i>[Signature]</i> (Initials)		Turnaround Time: _____ Thermometer ID #140 Correction Factor 0°C		Standard <i>RUSH</i> <input checked="" type="checkbox"/> Bacteria (only) Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Observed Temp. °C _____ Corrected Temp. °C _____	
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Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Dimitry Nikanorov
McNabb Partners
5014 W Carlsbad Hwy
Hobbs, New Mexico 88240
Generated 8/8/2024 1:14:16 PM Revision 1

JOB DESCRIPTION

RIO STATE #3
Eddy CO NM

JOB NUMBER

890-6964-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

Authorization



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

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8/8/2024 1:14:16 PM
Revision 1

Client: McNabb Partners
Project/Site: RIO STATE #3

Laboratory Job ID: 890-6964-1
SDG: Eddy CO NM

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Definitions/Glossary

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: McNabb Partners
Project: RIO STATE #3

Job ID: 890-6964-1

Job ID: 890-6964-1

Eurofins Carlsbad

Job Narrative
890-6964-1

REVISION

The report being provided is a revision of the original report sent on 8/8/2024. The report (revision 1) is being revised due to Per client email, requesting sample ID correction.

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

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

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

Receipt

The samples were received on 7/30/2024 11:11 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.2°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BS - 01 (7') (890-6964-1), BS - 01 (8') (890-6964-2), BS - 01 (9') (890-6964-3), BS - 01 (10') (890-6964-4), BS - 01 (11') (890-6964-5) and BS - 01 (12') (890-6964-6).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: BS - 01 (7') (890-6964-1), BS - 01 (8') (890-6964-2), BS - 01 (9') (890-6964-3), BS - 01 (10') (890-6964-4), BS - 01 (11') (890-6964-5), (890-6964-A-1-A MS) and (890-6964-A-1-B MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

Diesel Range Organics

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-87078 and analytical batch 880-87131 was outside the control limits.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-87078 and analytical batch 880-87131 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BS - 01 (9') (890-6964-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The closing continuing calibration verification (CCVC) associated with batch 880-87133 recovered above the upper control limit for Diesel Range Organics (Over C10-C28). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: (LCS 880-87117/2-A) and (LCSD 880-87117/3-A). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-87117 and analytical batch 880-87133 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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Case Narrative

Client: McNabb Partners
Project: RIO STATE #3

Job ID: 890-6964-1

Job ID: 890-6964-1 (Continued)

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Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-87117 and analytical batch 880-87133 was outside the control limits.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-87117 and analytical batch 880-87133 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28).

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-87359 and analytical batch 880-87294 was outside the control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BS - 01 (8') (890-6964-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-87294/6). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-87294 recovered above the upper control limit for Diesel Range Organics (Over C10-C28). An acceptable CCV was ran within the 12 hour limit, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-87294/21).

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

HPLC/IC

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

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Client Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Client Sample ID: BS - 01 (7')

Lab Sample ID: 890-6964-1

Date Collected: 07/30/24 08:30

Matrix: Solid

Date Received: 07/30/24 11:11

Sample Depth: 7'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/31/24 09:48	07/31/24 11:45	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/31/24 09:48	07/31/24 11:45	1
Ethylbenzene	0.0216		0.00202		mg/Kg		07/31/24 09:48	07/31/24 11:45	1
m-Xylene & p-Xylene	0.0635		0.00404		mg/Kg		07/31/24 09:48	07/31/24 11:45	1
o-Xylene	0.0245		0.00202		mg/Kg		07/31/24 09:48	07/31/24 11:45	1
Xylenes, Total	0.0880		0.00404		mg/Kg		07/31/24 09:48	07/31/24 11:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	177	S1+	70 - 130	07/31/24 09:48	07/31/24 11:45	1
1,4-Difluorobenzene (Surr)	92		70 - 130	07/31/24 09:48	07/31/24 11:45	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.110		0.00404		mg/Kg			07/31/24 11:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/31/24 19:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U ** *1	50.0		mg/Kg		07/31/24 10:01	07/31/24 19:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U ** *1	50.0		mg/Kg		07/31/24 10:01	07/31/24 19:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/31/24 10:01	07/31/24 19:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	07/31/24 10:01	07/31/24 19:47	1
o-Terphenyl	100		70 - 130	07/31/24 10:01	07/31/24 19:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.3		5.02		mg/Kg			08/02/24 05:42	1

Client Sample ID: BS - 01 (8')

Lab Sample ID: 890-6964-2

Date Collected: 07/30/24 08:45

Matrix: Solid

Date Received: 07/30/24 11:11

Sample Depth: 8'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/31/24 09:48	07/31/24 12:06	1
Toluene	0.241		0.00201		mg/Kg		07/31/24 09:48	07/31/24 12:06	1
Ethylbenzene	2.00		0.0502		mg/Kg		07/31/24 14:43	07/31/24 19:28	25
m-Xylene & p-Xylene	7.81		0.100		mg/Kg		07/31/24 14:43	07/31/24 19:28	25
o-Xylene	2.78		0.0502		mg/Kg		07/31/24 14:43	07/31/24 19:28	25
Xylenes, Total	10.6		0.100		mg/Kg		07/31/24 14:43	07/31/24 19:28	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	143	S1+	70 - 130	07/31/24 09:48	07/31/24 12:06	1

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Client Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Client Sample ID: BS - 01 (8')

Lab Sample ID: 890-6964-2

Date Collected: 07/30/24 08:45

Matrix: Solid

Date Received: 07/30/24 11:11

Sample Depth: 8'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	370	S1+	70 - 130	07/31/24 14:43	07/31/24 19:28	25
1,4-Difluorobenzene (Surr)	90		70 - 130	07/31/24 09:48	07/31/24 12:06	1
1,4-Difluorobenzene (Surr)	110		70 - 130	07/31/24 14:43	07/31/24 19:28	25

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	12.8		0.100		mg/Kg			07/31/24 19:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2970		49.8		mg/Kg			08/02/24 15:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	899		49.8		mg/Kg		08/02/24 09:59	08/02/24 15:39	1
Diesel Range Organics (Over C10-C28)	2070		49.8		mg/Kg		08/02/24 09:59	08/02/24 15:39	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/02/24 09:59	08/02/24 15:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	174	S1+	70 - 130	08/02/24 09:59	08/02/24 15:39	1
o-Terphenyl	102		70 - 130	08/02/24 09:59	08/02/24 15:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74.7		4.98		mg/Kg			08/02/24 05:50	1

Client Sample ID: BS - 01 (9')

Lab Sample ID: 890-6964-3

Date Collected: 07/30/24 09:00

Matrix: Solid

Date Received: 07/30/24 11:11

Sample Depth: 9'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/31/24 09:48	07/31/24 12:27	1
Toluene	0.247		0.00200		mg/Kg		07/31/24 09:48	07/31/24 12:27	1
Ethylbenzene	2.74		0.0498		mg/Kg		07/31/24 14:43	07/31/24 19:49	25
m-Xylene & p-Xylene	10.7		0.0996		mg/Kg		07/31/24 14:43	07/31/24 19:49	25
o-Xylene	3.70		0.0498		mg/Kg		07/31/24 14:43	07/31/24 19:49	25
Xylenes, Total	14.4		0.0996		mg/Kg		07/31/24 14:43	07/31/24 19:49	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	439	S1+	70 - 130	07/31/24 09:48	07/31/24 12:27	1
4-Bromofluorobenzene (Surr)	485	S1+	70 - 130	07/31/24 14:43	07/31/24 19:49	25
1,4-Difluorobenzene (Surr)	93		70 - 130	07/31/24 09:48	07/31/24 12:27	1
1,4-Difluorobenzene (Surr)	81		70 - 130	07/31/24 14:43	07/31/24 19:49	25

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	17.4		0.0996		mg/Kg			07/31/24 19:49	1

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Client Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Client Sample ID: BS - 01 (9')

Lab Sample ID: 890-6964-3

Date Collected: 07/30/24 09:00

Matrix: Solid

Date Received: 07/30/24 11:11

Sample Depth: 9'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	2220		49.8		mg/Kg			07/31/24 19:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	665	*+ *1	49.8		mg/Kg		07/30/24 14:57	07/31/24 19:16	1
Diesel Range Organics (Over C10-C28)	1550	*+ *1	49.8		mg/Kg		07/30/24 14:57	07/31/24 19:16	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/30/24 14:57	07/31/24 19:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130				07/30/24 14:57	07/31/24 19:16	1
o-Terphenyl	86		70 - 130				07/30/24 14:57	07/31/24 19:16	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		5.04		mg/Kg			08/02/24 05:58	1

Client Sample ID: BS - 01 (10')

Lab Sample ID: 890-6964-4

Date Collected: 07/30/24 09:15

Matrix: Solid

Date Received: 07/30/24 11:11

Sample Depth: 10'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/31/24 09:48	07/31/24 12:47	1
Toluene	0.217		0.00199		mg/Kg		07/31/24 09:48	07/31/24 12:47	1
Ethylbenzene	2.33		0.0497		mg/Kg		07/31/24 14:43	07/31/24 20:09	25
m-Xylene & p-Xylene	8.40		0.0994		mg/Kg		07/31/24 14:43	07/31/24 20:09	25
o-Xylene	2.72		0.0497		mg/Kg		07/31/24 14:43	07/31/24 20:09	25
Xylenes, Total	11.1		0.0994		mg/Kg		07/31/24 14:43	07/31/24 20:09	25
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	321	S1+	70 - 130				07/31/24 09:48	07/31/24 12:47	1
4-Bromofluorobenzene (Surr)	453	S1+	70 - 130				07/31/24 14:43	07/31/24 20:09	25
1,4-Difluorobenzene (Surr)	94		70 - 130				07/31/24 09:48	07/31/24 12:47	1
1,4-Difluorobenzene (Surr)	80		70 - 130				07/31/24 14:43	07/31/24 20:09	25

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	13.7		0.0994		mg/Kg			07/31/24 20:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1300		49.7		mg/Kg			07/31/24 19:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	343	*+ *1	49.7		mg/Kg		07/30/24 14:57	07/31/24 19:32	1
Diesel Range Organics (Over C10-C28)	955	*+ *1	49.7		mg/Kg		07/30/24 14:57	07/31/24 19:32	1

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Client Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Client Sample ID: BS - 01 (10')

Lab Sample ID: 890-6964-4

Date Collected: 07/30/24 09:15

Matrix: Solid

Date Received: 07/30/24 11:11

Sample Depth: 10'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/30/24 14:57	07/31/24 19:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130				07/30/24 14:57	07/31/24 19:32	1
o-Terphenyl	86		70 - 130				07/30/24 14:57	07/31/24 19:32	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	114		4.99		mg/Kg			08/02/24 06:06	1

Client Sample ID: BS - 01 (11')

Lab Sample ID: 890-6964-5

Date Collected: 07/30/24 09:30

Matrix: Solid

Date Received: 07/30/24 11:11

Sample Depth: 11'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/31/24 09:48	07/31/24 13:08	1
Toluene	0.00381		0.00199		mg/Kg		07/31/24 09:48	07/31/24 13:08	1
Ethylbenzene	0.0443		0.00199		mg/Kg		07/31/24 09:48	07/31/24 13:08	1
m-Xylene & p-Xylene	0.114		0.00398		mg/Kg		07/31/24 09:48	07/31/24 13:08	1
o-Xylene	0.0347		0.00199		mg/Kg		07/31/24 09:48	07/31/24 13:08	1
Xylenes, Total	0.149		0.00398		mg/Kg		07/31/24 09:48	07/31/24 13:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	229	S1+	70 - 130				07/31/24 09:48	07/31/24 13:08	1
1,4-Difluorobenzene (Surr)	93		70 - 130				07/31/24 09:48	07/31/24 13:08	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.197		0.00398		mg/Kg			07/31/24 13:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	97.1		49.7		mg/Kg			07/31/24 19:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U *+ *1	49.7		mg/Kg		07/30/24 14:57	07/31/24 19:47	1
Diesel Range Organics (Over C10-C28)	97.1	*+ *1	49.7		mg/Kg		07/30/24 14:57	07/31/24 19:47	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/30/24 14:57	07/31/24 19:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				07/30/24 14:57	07/31/24 19:47	1
o-Terphenyl	79		70 - 130				07/30/24 14:57	07/31/24 19:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	138		5.02		mg/Kg			08/02/24 06:14	1

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Client Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Client Sample ID: BS - 01 (12')

Lab Sample ID: 890-6964-6

Date Collected: 07/30/24 09:45

Matrix: Solid

Date Received: 07/30/24 11:11

Sample Depth: 12'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/31/24 09:48	07/31/24 13:29	1
Toluene	0.00586		0.00202		mg/Kg		07/31/24 09:48	07/31/24 13:29	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/31/24 09:48	07/31/24 13:29	1
m-Xylene & p-Xylene	0.00462		0.00404		mg/Kg		07/31/24 09:48	07/31/24 13:29	1
o-Xylene	0.00402		0.00202		mg/Kg		07/31/24 09:48	07/31/24 13:29	1
Xylenes, Total	0.00864		0.00404		mg/Kg		07/31/24 09:48	07/31/24 13:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	07/31/24 09:48	07/31/24 13:29	1
1,4-Difluorobenzene (Surr)	82		70 - 130	07/31/24 09:48	07/31/24 13:29	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0145		0.00404		mg/Kg			07/31/24 13:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/31/24 20:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U ** *1	50.0		mg/Kg		07/30/24 14:57	07/31/24 20:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U ** *1	50.0		mg/Kg		07/30/24 14:57	07/31/24 20:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/30/24 14:57	07/31/24 20:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	07/30/24 14:57	07/31/24 20:18	1
o-Terphenyl	80		70 - 130	07/30/24 14:57	07/31/24 20:18	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.26		5.04		mg/Kg			08/02/24 06:38	1

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Surrogate Summary

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
890-6964-1	BS - 01 (7')	177 S1+	92
890-6964-1 MS	BS - 01 (7')	191 S1+	94
890-6964-1 MSD	BS - 01 (7')	208 S1+	90
890-6964-2	BS - 01 (8')	143 S1+	90
890-6964-2	BS - 01 (8')	370 S1+	110
890-6964-3	BS - 01 (9')	439 S1+	93
890-6964-3	BS - 01 (9')	485 S1+	81
890-6964-4	BS - 01 (10')	321 S1+	94
890-6964-4	BS - 01 (10')	453 S1+	80
890-6964-5	BS - 01 (11')	229 S1+	93
890-6964-6	BS - 01 (12')	110	82
LCS 880-87116/1-A	Lab Control Sample	114	92
LCSD 880-87116/2-A	Lab Control Sample Dup	124	99
MB 880-87116/5-A	Method Blank	86	88

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
890-6964-1	BS - 01 (7')	88	100
890-6964-2	BS - 01 (8')	174 S1+	102
890-6964-3	BS - 01 (9')	142 S1+	86
890-6964-4	BS - 01 (10')	124	86
890-6964-5	BS - 01 (11')	91	79
890-6964-6	BS - 01 (12')	91	80
LCS 880-87078/2-A	Lab Control Sample	125	106
LCS 880-87117/2-A	Lab Control Sample	200 S1+	208 S1+
LCS 880-87359/2-A	Lab Control Sample	89	74
LCSD 880-87078/3-A	Lab Control Sample Dup	168 S1+	139 S1+
LCSD 880-87117/3-A	Lab Control Sample Dup	131 S1+	134 S1+
LCSD 880-87359/3-A	Lab Control Sample Dup	87	72
MB 880-87078/1-A	Method Blank	64 S1-	59 S1-
MB 880-87117/1-A	Method Blank	54 S1-	65 S1-
MB 880-87359/1-A	Method Blank	63 S1-	58 S1-

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-87116/5-A

Matrix: Solid

Analysis Batch: 87103

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 87116

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/31/24 09:48	07/31/24 11:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/31/24 09:48	07/31/24 11:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/31/24 09:48	07/31/24 11:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/31/24 09:48	07/31/24 11:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/31/24 09:48	07/31/24 11:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/31/24 09:48	07/31/24 11:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	07/31/24 09:48	07/31/24 11:24	1
1,4-Difluorobenzene (Surr)	88		70 - 130	07/31/24 09:48	07/31/24 11:24	1

Lab Sample ID: LCS 880-87116/1-A

Matrix: Solid

Analysis Batch: 87103

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 87116

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1127		mg/Kg		113	70 - 130
Toluene	0.100	0.1061		mg/Kg		106	70 - 130
Ethylbenzene	0.100	0.1215		mg/Kg		122	70 - 130
m-Xylene & p-Xylene	0.200	0.2461		mg/Kg		123	70 - 130
o-Xylene	0.100	0.1243		mg/Kg		124	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-87116/2-A

Matrix: Solid

Analysis Batch: 87103

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 87116

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1107		mg/Kg		111	70 - 130	2	35
Toluene	0.100	0.1000		mg/Kg		100	70 - 130	6	35
Ethylbenzene	0.100	0.1056		mg/Kg		106	70 - 130	14	35
m-Xylene & p-Xylene	0.200	0.2212		mg/Kg		111	70 - 130	11	35
o-Xylene	0.100	0.1089		mg/Kg		109	70 - 130	13	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 890-6964-1 MS

Matrix: Solid

Analysis Batch: 87103

Client Sample ID: BS - 01 (7')

Prep Type: Total/NA

Prep Batch: 87116

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U	0.100	0.1014		mg/Kg		101	70 - 130
Toluene	<0.00202	U	0.100	0.09237		mg/Kg		92	70 - 130

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QC Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3Job ID: 890-6964-1
SDG: Eddy CO NM

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

Lab Sample ID: 890-6964-1 MS

Matrix: Solid

Analysis Batch: 87103

Client Sample ID: BS - 01 (7')

Prep Type: Total/NA

Prep Batch: 87116

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	0.0216		0.100	0.1269		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.0635		0.200	0.2938		mg/Kg		115	70 - 130
o-Xylene	0.0245		0.100	0.1289		mg/Kg		104	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	191	S1+	70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-6964-1 MSD

Matrix: Solid

Analysis Batch: 87103

Client Sample ID: BS - 01 (7')

Prep Type: Total/NA

Prep Batch: 87116

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.1022		mg/Kg		102	70 - 130	1	35
Toluene	<0.00202	U	0.100	0.09602		mg/Kg		96	70 - 130	4	35
Ethylbenzene	0.0216		0.100	0.1281		mg/Kg		106	70 - 130	1	35
m-Xylene & p-Xylene	0.0635		0.200	0.2897		mg/Kg		113	70 - 130	1	35
o-Xylene	0.0245		0.100	0.1268		mg/Kg		102	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	208	S1+	70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

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

Lab Sample ID: MB 880-87078/1-A

Matrix: Solid

Analysis Batch: 87131

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 87078

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/30/24 14:57	07/31/24 11:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/30/24 14:57	07/31/24 11:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/30/24 14:57	07/31/24 11:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	64	S1-	70 - 130	07/30/24 14:57	07/31/24 11:54	1
o-Terphenyl	59	S1-	70 - 130	07/30/24 14:57	07/31/24 11:54	1

Lab Sample ID: LCS 880-87078/2-A

Matrix: Solid

Analysis Batch: 87131

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 87078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1101		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1115		mg/Kg		112	70 - 130

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QC Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

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

Lab Sample ID: LCS 880-87078/2-A

Matrix: Solid

Analysis Batch: 87131

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 87078

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	125		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-87078/3-A

Matrix: Solid

Analysis Batch: 87131

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 87078

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1425	*+ *1	mg/Kg		143	70 - 130	26	20
Diesel Range Organics (Over C10-C28)	1000	1386	*+ *1	mg/Kg		139	70 - 130	22	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	168	S1+	70 - 130
o-Terphenyl	139	S1+	70 - 130

Lab Sample ID: MB 880-87117/1-A

Matrix: Solid

Analysis Batch: 87133

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 87117

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/31/24 10:01	07/31/24 11:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/31/24 10:01	07/31/24 11:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/31/24 10:01	07/31/24 11:39	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	54	S1-	70 - 130	07/31/24 10:01	07/31/24 11:39	1
o-Terphenyl	65	S1-	70 - 130	07/31/24 10:01	07/31/24 11:39	1

Lab Sample ID: LCS 880-87117/2-A

Matrix: Solid

Analysis Batch: 87133

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 87117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1449	*+	mg/Kg		145	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1934	*+	mg/Kg		193	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	200	S1+	70 - 130
o-Terphenyl	208	S1+	70 - 130

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QC Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

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

Lab Sample ID: LCSD 880-87117/3-A

Matrix: Solid

Analysis Batch: 87133

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 87117

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1076	*1	mg/Kg		108	70 - 130	30	20
Diesel Range Organics (Over C10-C28)	1000	1238	*1	mg/Kg		124	70 - 130	44	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	131	S1+	70 - 130						
o-Terphenyl	134	S1+	70 - 130						

Lab Sample ID: MB 880-87359/1-A

Matrix: Solid

Analysis Batch: 87294

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 87359

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/02/24 09:58	08/02/24 10:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/02/24 09:58	08/02/24 10:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/02/24 09:58	08/02/24 10:00	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	63	S1-	70 - 130				08/02/24 09:58	08/02/24 10:00	1
o-Terphenyl	58	S1-	70 - 130				08/02/24 09:58	08/02/24 10:00	1

Lab Sample ID: LCS 880-87359/2-A

Matrix: Solid

Analysis Batch: 87294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 87359

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	904.5		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	759.4		mg/Kg		76	70 - 130		
Surrogate	%Recovery	LCS Qualifier	Limits						
1-Chlorooctane	89		70 - 130						
o-Terphenyl	74		70 - 130						

Lab Sample ID: LCSD 880-87359/3-A

Matrix: Solid

Analysis Batch: 87294

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 87359

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	862.0		mg/Kg		86	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	744.4		mg/Kg		74	70 - 130	2	20

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QC Sample Results

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

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

Lab Sample ID: LCSD 880-87359/3-A
Matrix: Solid
Analysis Batch: 87294

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 87359

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	87		70 - 130
o-Terphenyl	72		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-87136/1-A
Matrix: Solid
Analysis Batch: 87209

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Chloride	<5.00	U	5.00		mg/Kg			08/02/24 03:59		1

Lab Sample ID: LCS 880-87136/2-A
Matrix: Solid
Analysis Batch: 87209

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	250	233.0		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-87136/3-A
Matrix: Solid
Analysis Batch: 87209

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	250	228.4		mg/Kg		91	90 - 110	2	20

Lab Sample ID: 890-6964-5 MS
Matrix: Solid
Analysis Batch: 87209

Client Sample ID: BS - 01 (11')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	138		251	364.0		mg/Kg		90	90 - 110		

Lab Sample ID: 890-6964-5 MSD
Matrix: Solid
Analysis Batch: 87209

Client Sample ID: BS - 01 (11')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	138		251	369.7		mg/Kg		92	90 - 110	2	20

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QC Association Summary

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

GC VOA

Analysis Batch: 87103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-1	BS - 01 (7')	Total/NA	Solid	8021B	87116
890-6964-2	BS - 01 (8')	Total/NA	Solid	8021B	87116
890-6964-2	BS - 01 (8')	Total/NA	Solid	8021B	87116
890-6964-3	BS - 01 (9')	Total/NA	Solid	8021B	87116
890-6964-3	BS - 01 (9')	Total/NA	Solid	8021B	87116
890-6964-4	BS - 01 (10')	Total/NA	Solid	8021B	87116
890-6964-4	BS - 01 (10')	Total/NA	Solid	8021B	87116
890-6964-5	BS - 01 (11')	Total/NA	Solid	8021B	87116
890-6964-6	BS - 01 (12')	Total/NA	Solid	8021B	87116
MB 880-87116/5-A	Method Blank	Total/NA	Solid	8021B	87116
LCS 880-87116/1-A	Lab Control Sample	Total/NA	Solid	8021B	87116
LCSD 880-87116/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	87116
890-6964-1 MS	BS - 01 (7')	Total/NA	Solid	8021B	87116
890-6964-1 MSD	BS - 01 (7')	Total/NA	Solid	8021B	87116

Prep Batch: 87116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-1	BS - 01 (7')	Total/NA	Solid	5035	
890-6964-2	BS - 01 (8')	Total/NA	Solid	5035	
890-6964-2	BS - 01 (8')	Total/NA	Solid	5035	
890-6964-3	BS - 01 (9')	Total/NA	Solid	5035	
890-6964-3	BS - 01 (9')	Total/NA	Solid	5035	
890-6964-4	BS - 01 (10')	Total/NA	Solid	5035	
890-6964-4	BS - 01 (10')	Total/NA	Solid	5035	
890-6964-5	BS - 01 (11')	Total/NA	Solid	5035	
890-6964-6	BS - 01 (12')	Total/NA	Solid	5035	
MB 880-87116/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-87116/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-87116/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6964-1 MS	BS - 01 (7')	Total/NA	Solid	5035	
890-6964-1 MSD	BS - 01 (7')	Total/NA	Solid	5035	

Analysis Batch: 87249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-1	BS - 01 (7')	Total/NA	Solid	Total BTEX	
890-6964-2	BS - 01 (8')	Total/NA	Solid	Total BTEX	
890-6964-3	BS - 01 (9')	Total/NA	Solid	Total BTEX	
890-6964-4	BS - 01 (10')	Total/NA	Solid	Total BTEX	
890-6964-5	BS - 01 (11')	Total/NA	Solid	Total BTEX	
890-6964-6	BS - 01 (12')	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 87078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-3	BS - 01 (9')	Total/NA	Solid	8015NM Prep	
890-6964-4	BS - 01 (10')	Total/NA	Solid	8015NM Prep	
890-6964-5	BS - 01 (11')	Total/NA	Solid	8015NM Prep	
890-6964-6	BS - 01 (12')	Total/NA	Solid	8015NM Prep	
MB 880-87078/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-87078/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

GC Semi VOA (Continued)

Prep Batch: 87078 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-87078/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 87117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-1	BS - 01 (7')	Total/NA	Solid	8015NM Prep	
MB 880-87117/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-87117/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-87117/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 87131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-3	BS - 01 (9')	Total/NA	Solid	8015B NM	87078
890-6964-4	BS - 01 (10')	Total/NA	Solid	8015B NM	87078
890-6964-5	BS - 01 (11')	Total/NA	Solid	8015B NM	87078
890-6964-6	BS - 01 (12')	Total/NA	Solid	8015B NM	87078
MB 880-87078/1-A	Method Blank	Total/NA	Solid	8015B NM	87078
LCS 880-87078/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	87078
LCSD 880-87078/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	87078

Analysis Batch: 87133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-1	BS - 01 (7')	Total/NA	Solid	8015B NM	87117
MB 880-87117/1-A	Method Blank	Total/NA	Solid	8015B NM	87117
LCS 880-87117/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	87117
LCSD 880-87117/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	87117

Analysis Batch: 87265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-1	BS - 01 (7')	Total/NA	Solid	8015 NM	
890-6964-2	BS - 01 (8')	Total/NA	Solid	8015 NM	
890-6964-3	BS - 01 (9')	Total/NA	Solid	8015 NM	
890-6964-4	BS - 01 (10')	Total/NA	Solid	8015 NM	
890-6964-5	BS - 01 (11')	Total/NA	Solid	8015 NM	
890-6964-6	BS - 01 (12')	Total/NA	Solid	8015 NM	

Analysis Batch: 87294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-2	BS - 01 (8')	Total/NA	Solid	8015B NM	87359
MB 880-87359/1-A	Method Blank	Total/NA	Solid	8015B NM	87359
LCS 880-87359/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	87359
LCSD 880-87359/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	87359

Prep Batch: 87359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-2	BS - 01 (8')	Total/NA	Solid	8015NM Prep	
MB 880-87359/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-87359/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-87359/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad

QC Association Summary

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

HPLC/IC

Leach Batch: 87136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-1	BS - 01 (7')	Soluble	Solid	DI Leach	
890-6964-2	BS - 01 (8')	Soluble	Solid	DI Leach	
890-6964-3	BS - 01 (9')	Soluble	Solid	DI Leach	
890-6964-4	BS - 01 (10')	Soluble	Solid	DI Leach	
890-6964-5	BS - 01 (11')	Soluble	Solid	DI Leach	
890-6964-6	BS - 01 (12')	Soluble	Solid	DI Leach	
MB 880-87136/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-87136/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-87136/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6964-5 MS	BS - 01 (11')	Soluble	Solid	DI Leach	
890-6964-5 MSD	BS - 01 (11')	Soluble	Solid	DI Leach	

Analysis Batch: 87209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6964-1	BS - 01 (7')	Soluble	Solid	300.0	87136
890-6964-2	BS - 01 (8')	Soluble	Solid	300.0	87136
890-6964-3	BS - 01 (9')	Soluble	Solid	300.0	87136
890-6964-4	BS - 01 (10')	Soluble	Solid	300.0	87136
890-6964-5	BS - 01 (11')	Soluble	Solid	300.0	87136
890-6964-6	BS - 01 (12')	Soluble	Solid	300.0	87136
MB 880-87136/1-A	Method Blank	Soluble	Solid	300.0	87136
LCS 880-87136/2-A	Lab Control Sample	Soluble	Solid	300.0	87136
LCSD 880-87136/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	87136
890-6964-5 MS	BS - 01 (11')	Soluble	Solid	300.0	87136
890-6964-5 MSD	BS - 01 (11')	Soluble	Solid	300.0	87136

Lab Chronicle

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Client Sample ID: BS - 01 (7')

Lab Sample ID: 890-6964-1

Date Collected: 07/30/24 08:30

Matrix: Solid

Date Received: 07/30/24 11:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	87116	07/31/24 09:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	87103	07/31/24 11:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87249	07/31/24 11:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			87265	07/31/24 19:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	87117	07/31/24 10:01	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	87133	07/31/24 19:47	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	87136	07/31/24 11:12	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	87209	08/02/24 05:42	SMC	EET MID

Client Sample ID: BS - 01 (8')

Lab Sample ID: 890-6964-2

Date Collected: 07/30/24 08:45

Matrix: Solid

Date Received: 07/30/24 11:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	87116	07/31/24 09:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	87103	07/31/24 12:06	MNR	EET MID
Total/NA	Prep	5035			4.98 g	5 mL	87116	07/31/24 14:43	MNR	EET MID
Total/NA	Analysis	8021B		25	5 mL	5 mL	87103	07/31/24 19:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87249	07/31/24 19:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			87265	08/02/24 15:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	87359	08/02/24 09:59	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	87294	08/02/24 15:39	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	87136	07/31/24 11:12	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	87209	08/02/24 05:50	SMC	EET MID

Client Sample ID: BS - 01 (9')

Lab Sample ID: 890-6964-3

Date Collected: 07/30/24 09:00

Matrix: Solid

Date Received: 07/30/24 11:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	87116	07/31/24 09:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	87103	07/31/24 12:27	MNR	EET MID
Total/NA	Prep	5035			5.02 g	5 mL	87116	07/31/24 14:43	MNR	EET MID
Total/NA	Analysis	8021B		25	5 mL	5 mL	87103	07/31/24 19:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87249	07/31/24 19:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			87265	07/31/24 19:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	87078	07/30/24 14:57	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	87131	07/31/24 19:16	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	87136	07/31/24 11:12	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	87209	08/02/24 05:58	SMC	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Client Sample ID: BS - 01 (10')
Date Collected: 07/30/24 09:15
Date Received: 07/30/24 11:11

Lab Sample ID: 890-6964-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	87116	07/31/24 09:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	87103	07/31/24 12:47	MNR	EET MID
Total/NA	Prep	5035			5.03 g	5 mL	87116	07/31/24 14:43	MNR	EET MID
Total/NA	Analysis	8021B		25	5 mL	5 mL	87103	07/31/24 20:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87249	07/31/24 20:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			87265	07/31/24 19:32	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	87078	07/30/24 14:57	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	87131	07/31/24 19:32	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	87136	07/31/24 11:12	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	87209	08/02/24 06:06	SMC	EET MID

Client Sample ID: BS - 01 (11')
Date Collected: 07/30/24 09:30
Date Received: 07/30/24 11:11

Lab Sample ID: 890-6964-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	87116	07/31/24 09:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	87103	07/31/24 13:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87249	07/31/24 13:08	SM	EET MID
Total/NA	Analysis	8015 NM		1			87265	07/31/24 19:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	87078	07/30/24 14:57	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	87131	07/31/24 19:47	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	87136	07/31/24 11:12	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	87209	08/02/24 06:14	SMC	EET MID

Client Sample ID: BS - 01 (12')
Date Collected: 07/30/24 09:45
Date Received: 07/30/24 11:11

Lab Sample ID: 890-6964-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	87116	07/31/24 09:48	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	87103	07/31/24 13:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			87249	07/31/24 13:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			87265	07/31/24 20:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	87078	07/30/24 14:57	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	87131	07/31/24 20:18	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	87136	07/31/24 11:12	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	87209	08/02/24 06:38	SMC	EET MID

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

Accreditation/Certification Summary

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Laboratory: Eurofins Midland

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

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

Method Summary

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: McNabb Partners
Project/Site: RIO STATE #3

Job ID: 890-6964-1
SDG: Eddy CO NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6964-1	BS - 01 (7')	Solid	07/30/24 08:30	07/30/24 11:11	7'
890-6964-2	BS - 01 (8')	Solid	07/30/24 08:45	07/30/24 11:11	8'
890-6964-3	BS - 01 (9')	Solid	07/30/24 09:00	07/30/24 11:11	9'
890-6964-4	BS - 01 (10')	Solid	07/30/24 09:15	07/30/24 11:11	10'
890-6964-5	BS - 01 (11')	Solid	07/30/24 09:30	07/30/24 11:11	11'
890-6964-6	BS - 01 (12')	Solid	07/30/24 09:45	07/30/24 11:11	12'

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 595-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 382-7550, Carlsbad, NM (575) 988-3199
Little Rock, AR (501) 224-5060

Environment Testing

Work Order No:

Page of

Project Manager:	Dimitry Nikanorov	Bill to: (if different)	
Company Name:	McNabb Partners	Company Name:	McNabb Partners
Address:	5014 W Carlsbad Hwy	Address:	
City, State ZIP:	Hobbs, NM 88240	City, State ZIP:	
Phone:	505-497-6890	Email:	dimitry@mcnabbpartners.com

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

Project Name:	Rio State #3	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code		ANALYSIS REQUEST		Preservative Codes
Project Number:								None: NO DI Water: H ₂ O
Project Location:	Eddy Co, NM	Due Date:						Cool: Cool MeOH: Me
Sampler's Name:	Dimitry Nikanorov	TAT starts the day received by the lab, if received by 4:00pm						HCL: HC HNO ₃
PO #:		Wet loc:	Yes No					H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT		Temp Blank:	Yes No	Thermometer ID:				H ₃ PO ₄ : HP
Samples Received Intact:	Yes No	Correction Factor:						NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes No	Temperature Reading:						Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No	Corrected Temperature:						Zn Acetate+NaOH: Zn
Total Containers:								NaOH+Ascorbic Acid: SAPC
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont		Sample Comments
BS-01 (7')	S	7/30/24	0830	7'	Grab	1		
BS-01 (8')			0845	8'				
BS-01 (9')			0900	9'				
BS-01 (10')			0915	10'				
BS-01 (11')			0930	11'				
BS-01 (12')			0945	12'				

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fa Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$65.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	2 <i>[Signature]</i>	3 <i>[Signature]</i>	4 <i>[Signature]</i>	7/30 11:12
5 <i>[Signature]</i>	6 <i>[Signature]</i>			

Login Sample Receipt Checklist

Client: McNabb Partners

Job Number: 890-6964-1

SDG Number: Eddy CO NM

Login Number: 6964

List Number: 1

Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: McNabb Partners

Job Number: 890-6964-1

SDG Number: Eddy CO NM

Login Number: 6964

List Number: 2

Creator: Vasquez, Julisa

List Source: Eurofins Midland

List Creation: 07/31/24 08:24 AM

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



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

September 20, 2024

DIMITRY NIKANOROV

MC NABB SERVICES

P. O. BOX 5753

HOBBS, NM 88240

RE: RIO STATE #3

Enclosed are the results of analyses for samples received by the laboratory on 09/18/24 13:27.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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 accredited 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,

A handwritten signature in black ink that reads "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: BS - 08 5' (H245673-01)

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/19/2024	ND	2.09	105	2.00	0.0246	
Toluene*	<0.050	0.050	09/19/2024	ND	1.95	97.3	2.00	0.246	
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	1.96	97.8	2.00	0.872	
Total Xylenes*	<0.150	0.150	09/19/2024	ND	5.82	97.0	6.00	0.340	
Total BTX	<0.300	0.300	09/19/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	202	101	200	0.914	
DRO >C10-C28*	50.9	10.0	09/19/2024	ND	189	94.6	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 65.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.6 % 49.1-148

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



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: BS - 09 5' (H245673-02)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/19/2024	ND	2.09	105	2.00	0.0246		
Toluene*	<0.050	0.050	09/19/2024	ND	1.95	97.3	2.00	0.246		
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	1.96	97.8	2.00	0.872		
Total Xylenes*	<0.150	0.150	09/19/2024	ND	5.82	97.0	6.00	0.340		
Total BTEX	<0.300	0.300	09/19/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 71.5-134

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	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	202	101	200	0.914	
DRO >C10-C28*	36.1	10.0	09/19/2024	ND	189	94.6	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 76.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.6 % 49.1-148

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



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: BS - 01 12' (H245673-03)

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/19/2024	ND	2.09	105	2.00	0.0246	GC-NC	
Toluene*	<0.050	0.050	09/19/2024	ND	1.95	97.3	2.00	0.246		
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	1.96	97.8	2.00	0.872		
Total Xylenes*	<0.150	0.150	09/19/2024	ND	5.82	97.0	6.00	0.340		
Total BTX	<0.300	0.300	09/19/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 71.5-134

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	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	202	101	200	0.914	
DRO >C10-C28*	12.0	10.0	09/19/2024	ND	189	94.6	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 80.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.4 % 49.1-148

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



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: WS - 08A 0-2' (H245673-04)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/19/2024	ND	2.09	105	2.00	0.0246		
Toluene*	<0.050	0.050	09/19/2024	ND	1.95	97.3	2.00	0.246		
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	1.96	97.8	2.00	0.872		
Total Xylenes*	<0.150	0.150	09/19/2024	ND	5.82	97.0	6.00	0.340		
Total BTEX	<0.300	0.300	09/19/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.8 % 71.5-134

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	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	202	101	200	0.914	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	189	94.6	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 86.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.3 % 49.1-148

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



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: WS - 08A 2-5' (H245673-05)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/19/2024	ND	2.09	105	2.00	0.0246		
Toluene*	<0.050	0.050	09/19/2024	ND	1.95	97.3	2.00	0.246		
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	1.96	97.8	2.00	0.872		
Total Xylenes*	<0.150	0.150	09/19/2024	ND	5.82	97.0	6.00	0.340		
Total BTEX	<0.300	0.300	09/19/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.0 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	202	101	200	0.914		
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	189	94.6	200	1.66		
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND						

Surrogate: 1-Chlorooctane 84.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.4 % 49.1-148

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



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: WS - 09A 0-2' (H245673-06)

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/19/2024	ND	2.09	105	2.00	0.0246		
Toluene*	<0.050	0.050	09/19/2024	ND	1.95	97.3	2.00	0.246		
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	1.96	97.8	2.00	0.872		
Total Xylenes*	<0.150	0.150	09/19/2024	ND	5.82	97.0	6.00	0.340		
Total BTEX	<0.300	0.300	09/19/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 71.5-134

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	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	202	101	200	0.914	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	189	94.6	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.0 % 49.1-148

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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: WS - 09A 2-5' (H245673-07)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/19/2024	ND	2.32	116	2.00	1.24	
Toluene*	<0.050	0.050	09/19/2024	ND	2.19	109	2.00	0.761	
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	2.18	109	2.00	0.183	
Total Xylenes*	<0.150	0.150	09/19/2024	ND	6.59	110	6.00	0.412	
Total BTEX	<0.300	0.300	09/19/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	198	99.2	200	0.771	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	200	100	200	0.725	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 98.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 113 % 49.1-148

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



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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: WS - 01 6-9' (H245673-08)

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/19/2024	ND	2.32	116	2.00	1.24	
Toluene*	<0.050	0.050	09/19/2024	ND	2.19	109	2.00	0.761	
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	2.18	109	2.00	0.183	
Total Xylenes*	<0.150	0.150	09/19/2024	ND	6.59	110	6.00	0.412	
Total BTEX	<0.300	0.300	09/19/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/19/2024	ND	400	100	400	3.92	

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	09/19/2024	ND	198	99.2	200	0.771	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	200	100	200	0.725	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 97.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: WS - 01 9-12' (H245673-09)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/19/2024	ND	2.32	116	2.00	1.24		
Toluene*	<0.050	0.050	09/19/2024	ND	2.19	109	2.00	0.761		
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	2.18	109	2.00	0.183		
Total Xylenes*	<0.150	0.150	09/19/2024	ND	6.59	110	6.00	0.412		
Total BTEX	<0.300	0.300	09/19/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

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	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	198	99.2	200	0.771	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	200	100	200	0.725	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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*=Accredited Analyte

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



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: WS - 07 6-9' (H245673-10)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/19/2024	ND	2.32	116	2.00	1.24		
Toluene*	<0.050	0.050	09/19/2024	ND	2.19	109	2.00	0.761		
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	2.18	109	2.00	0.183		
Total Xylenes*	<0.150	0.150	09/19/2024	ND	6.59	110	6.00	0.412		
Total BTEX	<0.300	0.300	09/19/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	198	99.2	200	0.771	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	200	100	200	0.725	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 79.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 94.5 % 49.1-148

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*=Accredited Analyte

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



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

MC NABB SERVICES
 DIMITRY NIKANOROV
 P. O. BOX 5753
 HOBBS NM, 88240
 Fax To: (575) 391-8484

Received:	09/18/2024	Sampling Date:	09/18/2024
Reported:	09/20/2024	Sampling Type:	Soil
Project Name:	RIO STATE #3	Sampling Condition:	Cool & Intact
Project Number:	20220103-MURCHISON - RIOSTATE3	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY CO., NM		

Sample ID: WS - 07 9-12' (H245673-11)

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/19/2024	ND	2.32	116	2.00	1.24		
Toluene*	<0.050	0.050	09/19/2024	ND	2.19	109	2.00	0.761		
Ethylbenzene*	<0.050	0.050	09/19/2024	ND	2.18	109	2.00	0.183		
Total Xylenes*	<0.150	0.150	09/19/2024	ND	6.59	110	6.00	0.412		
Total BTEX	<0.300	0.300	09/19/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	09/19/2024	ND	400	100	400	3.92		

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	09/19/2024	ND	198	99.2	200	0.771	
DRO >C10-C28*	<10.0	10.0	09/19/2024	ND	200	100	200	0.725	
EXT DRO >C28-C36	<10.0	10.0	09/19/2024	ND					

Surrogate: 1-Chlorooctane 94.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Notes and Definitions

- GC-NC 8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
- 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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A handwritten signature in black ink, appearing to read "Mike Snyder".

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: McKabbPartners

Project Manager: Dimitry Nikanov

Address: On file

City: _____ State: _____ Zip: _____

Phone #: _____ Fax #: _____

Project #: _____ Project Owner: _____

Project Name: 20230108-Murchison-Rio State 3

Project Location: Rio State #3

Sampler Name: Chris Tupper Turner

BILL TO

P.O. #: 20230108-Murchison-Rio State 3

Company: Murchison Oil & Gas

Attn: Dimitry Nikanov

Address: _____

City: _____ State: _____ Zip: _____

Phone #: _____

Fax #: _____

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	ANALYSIS REQUEST
<u>H45073</u>	<u>BS-08</u>	<u>5F+</u>	<u>C</u>	<u>X</u>	<u>X</u>	<u>09/18</u>	<u>4:34</u>	<u>X</u>	<u>Chloride</u>
	<u>BS-09</u>	<u>5F+</u>	<u>1</u>	<u>X</u>	<u>X</u>		<u>4:41</u>	<u>X</u>	<u>TPH (GRO+DRO+MRO)</u>
	<u>BS-01</u>	<u>12F+</u>					<u>4:53</u>		<u>BTEx (Benzene)</u>
	<u>WS-08A</u>	<u>0-2F+</u>					<u>10:03</u>		
	<u>WS-01A</u>	<u>2-5F+</u>					<u>10:01</u>		
	<u>WS-09A</u>	<u>6-9F+</u>					<u>10:17</u>		
	<u>WS-01</u>	<u>9-12F+</u>					<u>10:22</u>		
	<u>WS-07</u>	<u>6-9F+</u>					<u>10:33</u>		
							<u>10:40</u>		
							<u>10:46</u>		

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Relinquished By: _____

Date: 9/18/24 Received By: S. Odionov

Time: 13:27

Relinquished By: _____

Date: _____ Received By: _____

Time: _____

Delivered By: (Circle One)

Observed Temp. °C: 5.0

Sample Condition: Intact

CHECKED BY: ST

Sampler - UPS - Bus - Other: _____

Corrected Temp. °C: 5.0

Corrected Temp. °C: 5.0

Thermometer ID #140

Correction Factor 0.0

Standard 48H2

Bacteria (only) Sample Condition: Intact

Observed Temp. °C: _____

Corrected Temp. °C: _____

REMARKS: Chris@mcabbpartners.com

Verbal Result: ☐ Yes ☐ No Add'l Phone #: _____

All Results are emailed. Please provide Email address: _____

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinalhsnm.com



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: *McNabb Partners*

Project Manager: *Dimitry Nikanorov*

Address: *On-File*

City: State: Zip:

Phone #: Fax #:

Project #: Project Owner:

Project Name: *20220103-Murchison-Rio State*

Project Location: *Rio State #3*

Sampler Name: *Christopher Turner*

BILL TO

ANALYSIS REQUEST

P.O. # *20220103-Murchison-Rio State*

Company: *Murchison Oil & Gas*

Attn: *Dimitry McNabb Partners*

Address:

City: State: Zip:

Phone #:

Fax #:

FOR LAB USE ONLY

Lab I.D. *12018-24*
12018-24
12018-24

Sample I.D.

WS-07

4-12Ft

☒ (G)RAB OR (C)OMP

1

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

09/18 10:53

X

X

X

Chloride

TPH (GRO+DRO+MRO)

BTEX (Benzene)

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Relinquished By:

[Signature]

Time: *9:18:24*

Date: *9/18/24*

Received By: *[Signature]*

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

Relinquished By:

[Signature]

Time: *9:18:24*

Date: *9/18/24*

Received By: *[Signature]*

REMARKS:

Chloride

TPH (GRO+DRO+MRO)

BTEX (Benzene)

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp. °C *5.0*

Corrected Temp. °C *5.0*

Sample Condition

Turnaround Time:

Standard *48 Hrs*

Bacteria (only) Sample Condition

Observed Temp. °C

Corrected Temp. °C

FORM 000-1-24 07/11/23

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Appendix C

Remediation Plan



McNabb Partners, LLC
Hobbs • Carlsbad • Midland



Site Assessment and Remediation Work Plan

Murchison Oil & Gas, LLC

Rio State #3

Eddy County, New Mexico

Unit Letter "D", Section 36, Township 18 South, Range 24 East

Latitude 32.708155 North, Longitude 104.546172 West

NMOCD Incident # nAPP2202454641

Prepared For:

Murchison Oil & Gas
5325 Sierra Vista
Carlsbad, NM 88230

Prepared By:

Hungry Horse, LLC
4024 Plains Hwy
Lovington, NM 88260
Office: (575) 393-3386

June 2024

Bradley Wells

Bradley Wells
Project Manager
bwells@hungry-horse.com

Daniel Dominguez

Daniel Dominguez
Environmental Manager
ddominguez@hungry-horse.com

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- Figure 2 – OSE POD Locations Map
- Figure 3 – USGS Well Locations Map
- Figure 4 – January 19,2022 & February 7, 2023 Sample Map
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- Attachment I – Karst, Wetland, and Soil Maps
- Attachment II – Depth to Groundwater
- Attachment III – Field Data
- Attachment IV – Laboratory Analytical Results



HUNGRY HORSE, LLC

The following *Site Assessment and Remediation Work Plan* serves as a condensed update on proposed reclamation activities at the afore referenced Site.

Background:

The site is located in Unit Letter D (NW/NW), Section 36, Township 18 South, Range 24 East, approximately seventeen miles Southwest of Artesia, in Eddy County, New Mexico. The property is located on private land. Topographic Map, OSE POD Locations Map, and USGS Well Locations Map are included as Figure 1, Figure 2, and Figure 3, respectively.

The release occurred at a load line on an active well pad; Latitude 32.708155 North, Longitude 104.546172 West. The NMOCD Form C-141 indicated that on January 3, 2022 approximately 4.64 bbls of produced water and 68.44 bbls condensate were released when a load line valve froze and burst. A crew was dispatched to the release site and the valve was repaired. Approximately 11.6 bbls were recovered. Previously submitted pages of the NMOCD Form C-141 are available on the NMOCD Permitting Portal.

NMOCD Site Classification:

A search of the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) groundwater databases was completed in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Approximate depth to groundwater was determined using maintained and published water well data. Karst mapping indicates the site is located in a Karst designated area. Depth to groundwater information is provided as Attachment II and the results are depicted on Figures 2 and 3.

Three water wells are located within a half mile of the release area with depth to groundwater ranging from 364' to 379.17' bgs. However, as the site is located in a Karst designated area, the site will be remediated according to the strictest NMOCD Closure Criteria Utilizing this information, the NMOCD Closure Criteria for the Site were determined as follows:

Depth to Groundwater	Constituent	Method	Limit
<50'	Chloride	EPA 300.0 or SM4500 CLB	600 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	100 mg/kg
	BTEX	EPA SW-846 Methods 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Methods 8021B or 8260B	10 mg/kg

A United States Department of Agriculture (USDA) Web Soil Survey was completed to determine soil types in the area of remediation. Web Soil Survey indicates the area is located in the Upton-Reagan association comprised of gravelly loam soils with 0 to 9 percent slopes. As the release occurred on an active well pad, no seeding will be required. Karst, Wetland, and Soil Maps are provided as Attachment I.



Initial Site Assessment and Delineation:

On January 19, 2022, RT Hicks Consultants, Ltd. conducted an initial site assessment and sampling activities of the release area. Based on these sampling activities, eighteen representative soil samples were selected for laboratory analysis. Soil samples SSA1 through SSA6, as well as a Background sample, were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria in only three of the submitted samples, BG at 0-4' and 4.2' bgs and SSA3 at 4.2 bgs. The remaining soil samples all exhibited TPH concentrations in excess of NMOCD Closure Criteria.

On February 7, 2023, RT Hicks Consultants, Ltd. conducted additional sampling activities in and around the release area. Based on these sampling activities, twelve representative soil samples were selected for laboratory analysis. Soil samples SSA1, SSA2, SSA7, and SSA8, were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria in SSA7 and SSA8. SSA1 and SSA2 all exhibited TPH concentrations in excess of NMOCD Closure Criteria.

On June 4, 2024, Hungry Horse conducted delineation sampling of the release area. Sixteen representative soil samples were submitted for laboratory analysis. Soil samples SP1 through SP4 and HZ1 through HZ4 were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria in each of the submitted samples with the exception of SP2 at Surface, SP3 and SP4, at Surface and one-foot bgs, which exhibited TPH concentrations in excess of NMOCD Closure Criteria.

January 19, 2022 & February 7, 2023 Sample Map and Delineation Sample Map are provided as Figure 4 and Figure 5, respectively. Laboratory Analytical Data is provided as Attachment III.

Proposed Remediation Activities:

In accordance with NMOCD Regulations, and based upon laboratory analytical results, site characteristics, and field observations made during the initial site assessment, the following remediation activities are proposed in an effort to advance the site toward approved closure.

- Based upon laboratory analytical results received from RT Hicks Consultants, Ltd. sampling activities and Hungry Horse delineation sampling, the release area will be excavated to an approximate depth of five feet bgs. The proposed excavation area, approximately 2,000 sq. ft., is depicted on Figure 5.
- Excavated contaminated soil, including berms, approximately 500 cy, will be temporarily stockpiled onsite, atop plastic, before transport to an NMOCD approved disposal facility.
- Stormwater protection (i.e. berms, waddles, etc.) will be installed around the contaminated soil stockpile to prevent transportation of contaminated soils due to precipitation events. If the plastic is found to be damaged during remediation activities, five-point composite samples, representing no more than 200 square feet, will be



collected from beneath the plastic and analyzed for BTEX, TPH, and chloride to ensure surface soil has not been contaminated.

- Upon completion of excavation activities, five-point composite confirmation samples will be collected from the excavation floor and sidewalls; each sample representing no more than 200 square feet. Confirmation soil samples will be submitted to the laboratory for analysis of BTEX, TPH, and chloride.
- Upon receipt of laboratory analytical results from confirmation soil samples, demonstrating constituent contaminant levels are in excess of the strictest NMOCD Closure Criteria in the excavation floor and/or sidewalls, the area will be further excavated, vertically and/or horizontally, until laboratory analytical data indicates constituent contaminant levels are equal to or below the strictest NMOCD Closure Criteria in the excavation floor and sidewalls.
- Upon receiving laboratory analytical results from confirmation soil samples, demonstrating constituent contaminant levels are equal to or below NMOCD Closure Criteria, the excavation will be backfilled with locally sourced, clean, non-impacted, material. Berms will be rebuilt to contain 1.5 times the volume of the tank.
- Remediation activities are expected to be completed within 30 days of receiving NMOCD and NMBLM approval of this Site Assessment and Remediation Work Plan.

Sampling Plan:

Upon completion of excavation activities, confirmation five-point composite soil samples will be collected from the excavation floor and sidewalls; each sample representing no more than 200 square feet. This will ensure the lateral extents of soil contamination have been removed. Confirmation soil samples will be submitted to the laboratory for analysis of BTEX, TPH, and chloride.

Restoration, Reclamation, and Re-Vegetation:

Based upon laboratory analytical results from confirmation soil samples, the excavation will be backfilled with locally sourced, clean, non-impacted material. The area will be contoured to achieve erosion control and preserve surface water flow. As the affected area is located on an active well pad, and no area off pad was affected, no seeding will be required.

Limitations:

Hungry Horse, LLC, has prepared this *Site Assessment and Remediation Work Plan* to the best of its ability. No other warranty, expressed or implied, is made or intended. Hungry Horse has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Hungry Horse has not conducted an independent examination of the facts contained in referenced materials and statements. Hungry Horse has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Hungry Horse notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.



Distribution:

Murchison Oil & Gas

5325 Sierra Vista
Carlsbad, NM 88230

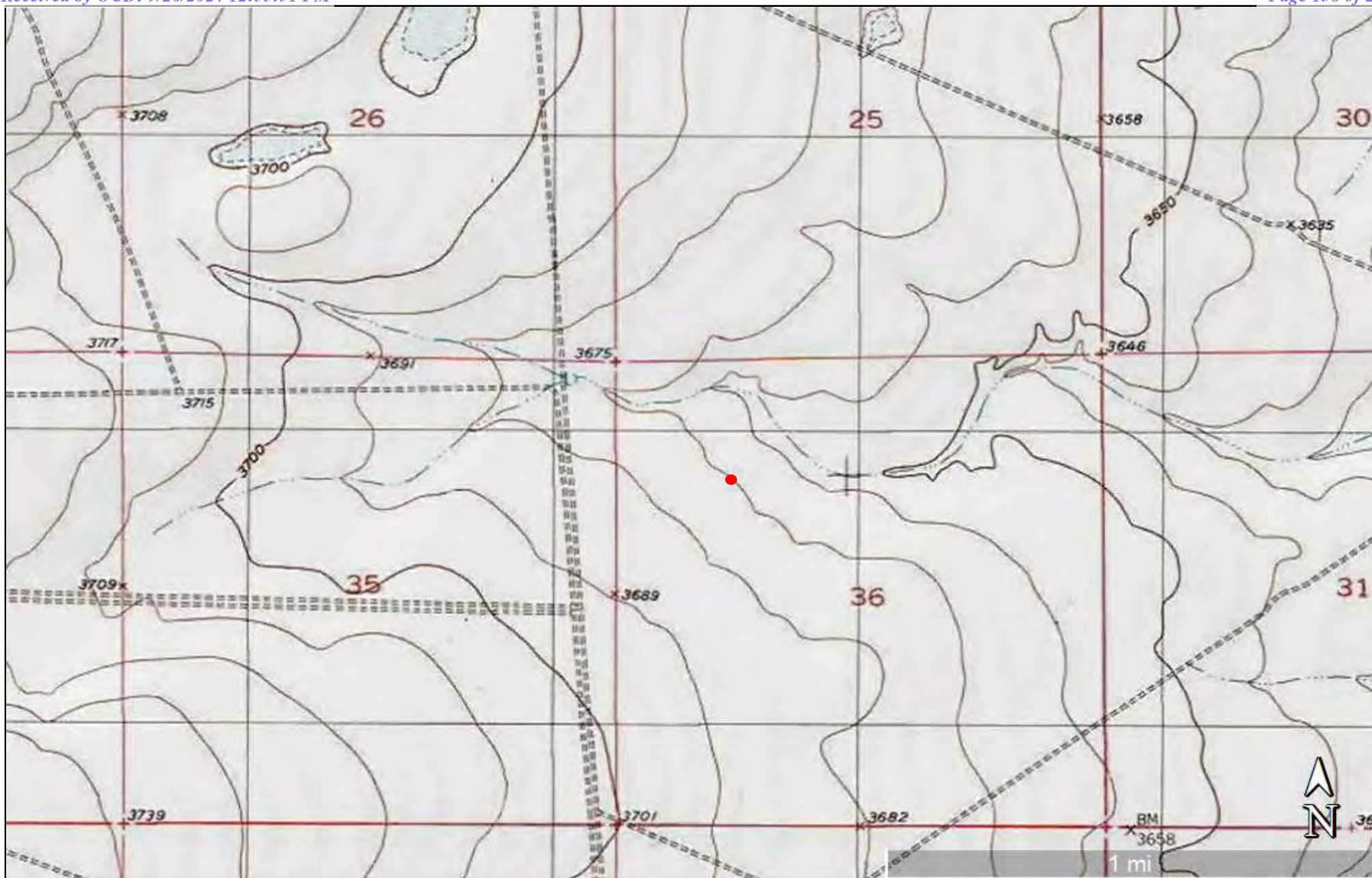
New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 2
811 S. First St.
Artesia, NM 88210

Yates Ranch Property, LLP

PO Box 1394
Artesia, NM 88211

Figures

**Figure 1**

Topographic Map
Murchison Oil & Gas

Rio State #3

GPS: 32.708155, -104.546172

Eddy County

Legend:

● Rio State #3 Location

Drafted: dd

Checked: bw

Date: 4/15/24



**Figure 2**

OSE POD Locations Map
Murchison Oil & Gas
Rio State #3
GPS: 32.708155, -104.546172
Eddy County

Legend:

- Rio State #3 Location
- Unknown OSE Water Well



Drafted: dd
Checked: bw
Date: 4/15/24

**Figure 3**

USGS Well Locations Map
Murchison Oil & Gas
Rio State #3
GPS: 32.708155, -104.546172
Eddy County

Legend:

- Rio State #3 Location
- USGS Well Location

Drafted: dd
Checked: bw
Date: 4/15/24



**Figure 4**

January 19, 2022 & February 7, 2023 Sample Map
Murchison Oil & Gas
Rio State #3
GPS: 32.708155, -104.546172
Eddy County

Legend:

- Release Area
 SSA1 Sample Location

Drafted: dd
Checked: bw
Date: 4/16/24



**Figure 5**

Delineation Sample Map
Murchison Oil & Gas
Rio State #3
GPS: 32.708155, -104.546172
Eddy County

Legend:

- Proposed Excavation Area
- SP1 Delineation Sample Location
- HZ1 Horizontal Sample Location

Drafted: dd
Checked: bw
Date: 6/3/24



Table

TABLE 1
Summary of Soil Sample Laboratory Analytical Results
Murchison Oil & Gas
Rio State #3
NMOCD Ref. #: nAPP2202454641

Sample ID	Date	Depth (ft)	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SSA1	1/19/22	0-2	In-Situ	<0.050	<0.300	891	2,160	3,051	25.4	3,076.4	32.0
	1/19/22	2-4	In-Situ	<0.050	<0.300	415	928	1,343	11.2	1,354.2	16.0
	1/19/22	0-4	In-Situ	<0.500	112	1,540	3,750	5,290	21.6	5,311.6	<16.0
	1/19/22	4.2	In-Situ	<0.500	77.5	691	1,760	2,451	<10.0	2,451	<16.0
	2/7/23	0-2	In-Situ	<0.025	3.99	1,390	2,170	3,560	<10.0	3,560	<16.0
	2/7/23	2-4	In-Situ	<0.500	17.1	290	467	757	<10.0	757	48.0
	2/7/23	4.2	In-Situ	<0.500	21.1	504	704	1,208	<10.0	1,208	32.0
SSA2	1/19/22	0-2	In-Situ	<0.050	<0.300	2,620	4,010	6,630	38.3	6,668.3	48.0
	1/19/22	2-4	In-Situ	<0.050	<0.300	914	1,780	2,694	14.1	2,708.1	<16.0
	1/19/22	0-4	In-Situ	<0.500	136	2,860	7,150	10,010	38.2	10,048.2	<16.0
	1/19/22	4.2	In-Situ	<0.500	102	1,260	3,150	4,410	21.2	4,431.2	<16.0
	2/7/23	0-2	In-Situ	<0.500	12.3	2,560	3,570	6,130	29.2	6,159.2	64.0
	2/7/23	2-4	In-Situ	<0.500	59.6	2,600	3,050	5,650	26.6	5,676.6	32.0
	2/7/23	4.2	In-Situ	<0.500	43.5	1,710	2,050	3,760	18.3	3,778	48.0
SSA3	1/19/22	0-4	In-Situ	<0.050	4.53	28.3	123	151	<10.0	151	<16.0
	1/19/22	4.2	In-Situ	<0.050	2.04	10.5	54.0	64.5	10.8	75.3	<16.0
SSA4	1/19/22	0-4	In-Situ	<0.050	4.05	134	602	736	<10.0	736	16.0
	1/19/22	4.2	In-Situ	<0.050	9.57	58.0	219	277	15.2	292.2	48.0
SSA5	1/19/22	0-4	In-Situ	<0.050	1.67	37.5	221	259	<10.0	259	32.0
	1/19/22	4.2	In-Situ	<0.050	3.89	13.8	102	115.8	<10.0	115.8	48.0
SSA6	1/19/22	0-4	In-Situ	<0.050	6.82	51.8	366	418	10.4	428	<16.0
	1/19/22	4.2	In-Situ	<0.050	4.43	62.4	329	391.4	12.4	403.8	16.0
SSA7	2/7/23	0-2	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
	2/7/23	2-4	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	2/7/23	4.2	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
SSA8	2/7/23	0-2	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
	2/7/23	2-4	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
	2/7/23	4.2	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
BG	1/19/22	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	1/19/22	4.2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
NMOCD Closure Criteria				10	50	-	-	NA	-	100	600

NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

TABLE 1
Summary of Soil Sample Laboratory Analytical Results
Murchison Oil & Gas
Rio State #3
NMOCD Ref. #: nAPP2202454641

Sample ID	Date	Depth (ft)	Soil Status	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SP1	6/4/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
	6/4/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
SP2	6/4/24	Surf	In-Situ	<0.050	<0.300	<10.0	101	101	34.9	135.9	800
	6/4/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80.0
SP3	6/4/24	Surf	In-Situ	<0.050	<0.300	105	4,960	5,065	267	5,332	400
	6/4/24	1	In-Situ	<0.050	<0.300	243	1,090	1,333	<10.0	1,333	80.0
SP4	6/4/24	Surf	In-Situ	<0.050	0.630	65.2	3,420	3,485.2	467	3,952.2	16.0
	6/4/24	1	In-Situ	<0.050	19.4	797	1,650	2,447	24.1	2,471.1	32.0
HZ1	6/4/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	6/4/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
HZ2	6/4/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	6/4/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
HZ3	6/4/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	6/4/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
HZ4	6/4/24	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	6/4/24	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
NMOCD Closure Criteria				10	50	-	-	NA	-	100	600

NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Attachment I

Karst, Wetland, and Soil Maps

Rio State #3



4/17/2024

Karst Type

- Carbonate
- Erosional
- Gypsum



Volcanic

World Imagery

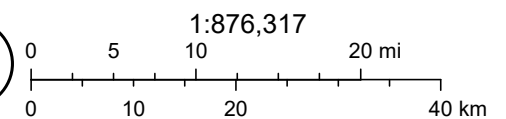
Low Resolution 15m Imagery

High Resolution 60cm Imagery

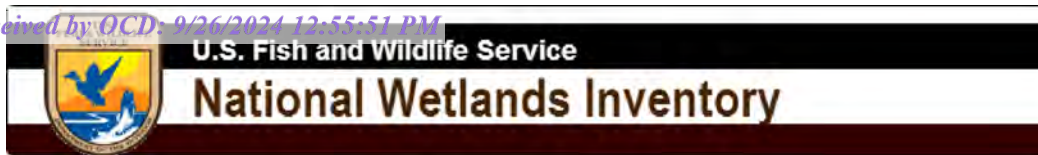
High Resolution 30cm Imagery

Citations

150m Resolution Metadata



U.S. Geological Survey Open-File Report 2004-1352, Caves and Karst in the U.S. National Park Service, AGI Karst Map of the US., Earthstar Geographics








Rio State #3



April 17, 2024

Wetlands

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland

-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond

-  Lake
-  Other
-  Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

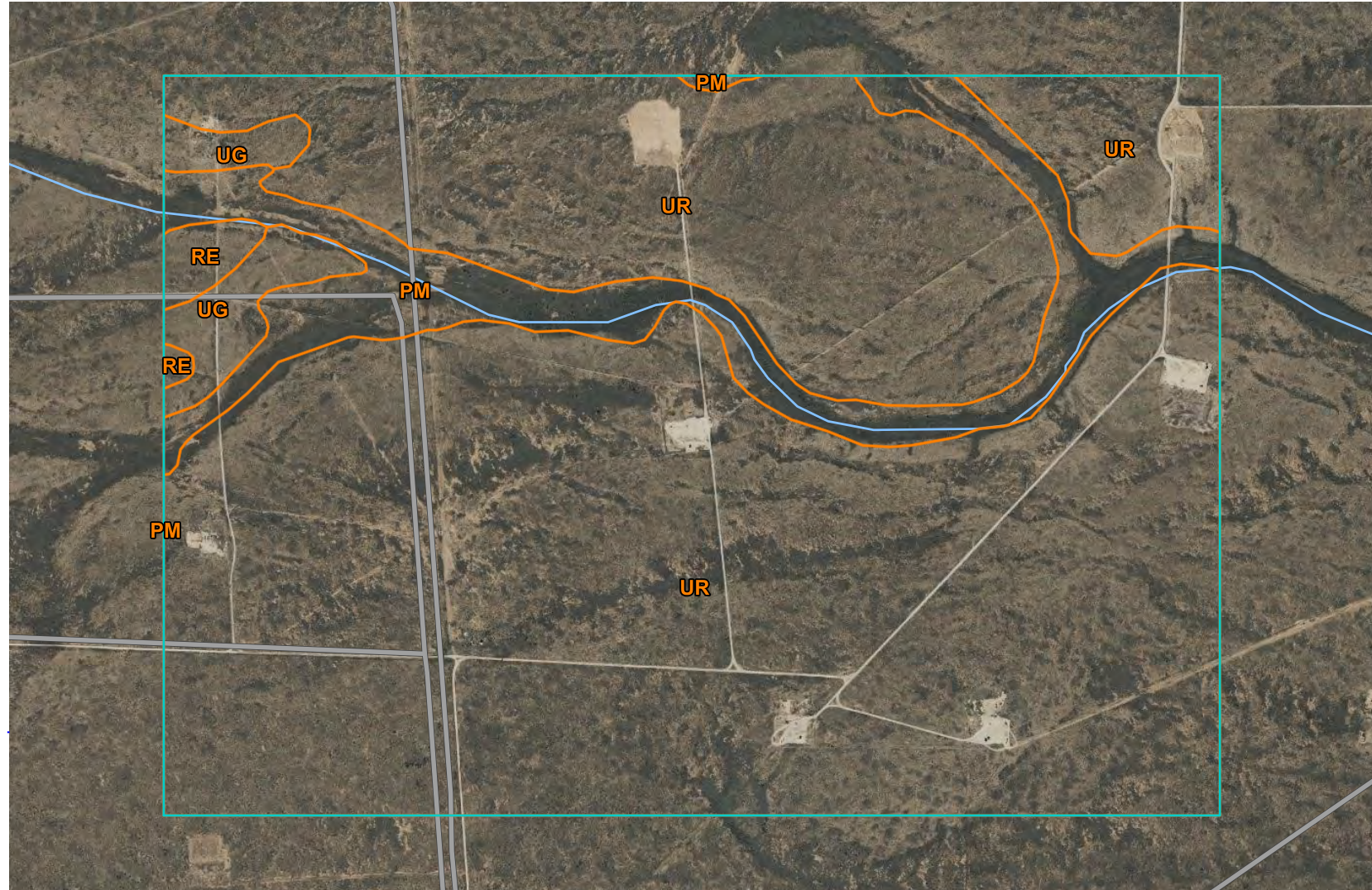
Soil Map—Eddy Area, New Mexico
(Rio State #3)

32° 42' 58" N

104° 33' 40" W

104° 31' 51" W

32° 42' 58" N



32° 41' 59" N

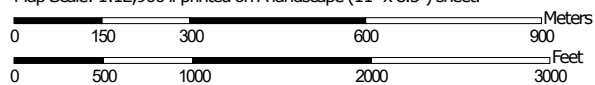
32° 41' 59" N

104° 33' 40" W

104° 31' 51" W



Map Scale: 1:12,900 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84

Natural Resources
Conservation ServiceWeb Soil Survey
National Cooperative Soil Survey4/17/2024
Page 1 of 3

Soil Map—Eddy Area, New Mexico
(Rio State #3)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 12, 2022—Dec 2, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PM	Pima silt loam, 0 to 1 percent slopes	79.3	9.7%
RE	Reagan-Upton association, 0 to 9 percent slopes	7.2	0.9%
UG	Upton gravelly loam, 0 to 9 percent slopes	21.1	2.6%
UR	Upton-Reagan complex, 0 to 9 percent slopes	712.4	86.9%
Totals for Area of Interest		820.0	100.0%

Eddy Area, New Mexico

UR—Upton-Reagan complex, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w65

Elevation: 1,100 to 5,400 feet

Mean annual precipitation: 6 to 15 inches

Mean annual air temperature: 60 to 70 degrees F

Frost-free period: 180 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Upton and similar soils: 55 percent

Reagan and similar soils: 35 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Upton

Setting

Landform: Ridges, fans

Landform position (three-dimensional): Side slope, rise

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 9 inches: gravelly loam

H2 - 9 to 13 inches: gravelly loam

H3 - 13 to 21 inches: cemented

H4 - 21 to 60 inches: very gravelly loam

Properties and qualities

Slope: 0 to 9 percent

Depth to restrictive feature: 7 to 20 inches to petrocalcic

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 75 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Map Unit Description: Upton-Reagan complex, 0 to 9 percent slopes---Eddy Area, New Mexico

Rio State #3

Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R070BC025NM - Shallow
Hydric soil rating: No

Description of Reagan

Setting

Landform: Fan remnants, alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Alluvium and/or eolian deposits

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 60 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Minor Components

Pima

Percent of map unit: 5 percent
Ecological site: R070BC017NM - Bottomland
Hydric soil rating: No

Reagan

Percent of map unit: 5 percent
Ecological site: R070BC007NM - Loamy

Map Unit Description: Upton-Reagan complex, 0 to 9 percent slopes---Eddy Area, New Mexico

Rio State #3

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 19, Sep 7, 2023

Attachment II

Depth to Groundwater



New Mexico Office of the State Engineer
Wells with Well Log Information

No wells found.

UTMNAD83 Radius Search (in meters):

Easting (X): 542535 Northing (Y): 3619022 Radius: 805

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 particular purpose of the data.


4/17/24 1:09 PM

WELLS WITH WELL LOG INFORMATION



New Mexico Office of the State Engineer

Point of Diversion Summary


		(quarters are 1=NW 2=NE 3=SW 4=SE)						(NAD83 UTM in meters)	
		(quarters are smallest to largest)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	RA 08148	3	3	1	36	18S	24E	542252	3618748* 
x									
Driller License:		Driller Company:							
Driller Name:									
Drill Start Date:		Drill Finish Date:				Plug Date:			
Log File Date:		PCW Rev Date:				Source:			
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size:	8.00	Depth Well:		508 feet				Depth Water:	
x									

*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.

4/17/24 1:27 PM

POINT OF DIVERSION SUMMARY




New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	RA 11061 POD1	4	2	35	18S	24E	541949	3618852*	

Driller License:

Driller Company:

Driller Name:

UNKNOWN DRILLER

Drill Start Date:

Drill Finish Date:

12/31/1982

Plug Date:

Log File Date:

PCW Rev Date:

Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield:

400 GPM

Casing Size:

5.00

Depth Well:

450 feet

Depth Water:

364 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.

4/17/24 1:28 PM

POINT OF DIVERSION SUMMARY



USGS Home

Contact USGS

Search USGS

National Water Information System: Web Interface


USGS Water Resources

Data Category:Groundwater

Geographic Area:United States

GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

 Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 324217104325401

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 324217104325401 18S.24E.35.24444

Eddy County, New Mexico
Latitude 32°42'17", Longitude 104°32'54" NAD27
Land-surface elevation 3,689 feet above NGVD29
The depth of the well is 450.00 feet below land surface.
This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.
This well is completed in the Artesia Group (313ARTS) local aquifer.

Output formats

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

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1990-02-20			D62610		3324.50	NGVD29	P	S		
1990-02-20			D62611		3326.10	NAVD88	P	S		
1990-02-20			D72019	364.50			P	S		
1994-02-21			D62610		3317.37	NGVD29		S		
1994-02-21			D62611		3318.97	NAVD88		S		
1994-02-21			D72019	371.63				S		
1999-02-02			D62610		3309.83	NGVD29	1	S	USGS	
1999-02-02			D62611		3311.43	NAVD88	1	S	USGS	
1999-02-02			D72019	379.17			1	S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet

Section	Code	Description
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status		The reported water-level measurement represents a static level
Status	1	Static
Status	P	Pumping
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels
URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)
Page Last Modified: 2024-04-17 15:31:15 EDT
0.31 0.26 nadww01

Attachment III Field Data

Sample Log

Hungry Horse, LLC

Project: Rio State #3

Karst Yes Water <50'

Standard TPH 100mg/kg, Chloride 600mg/kg

Date: 6-4-24GPS: 32.708155, -104.546172Sampler: Jerry Heidelberg

Sample ID	Depth	PID/Odor	Chloride	GPS
HZ1	Surf	NO	1.4 @ 30x4 = 120	
	1'		1.4 @ 36x4 = 144	
HZ2	Surf		0.8 > 100	
	1'		1.2 > 100	
HZ3	Surf		1.6 @ 36x4 = 144	
	1'		1.4 @ 30x4 = 120	
HZ4	Surf		1.2 @ > 100	
	1'		1.4 @ 30x4 = 120	
SP1	Surf	NO	1.4 @ 30x4 = 120	
	1'	NO	3.4 @ 114x4 = 456	
	2'			
	3'			
	4'			
	6'			
	8'			
	10'			
	12'			
	Surf	yes	5.0 @ 227x4 = 908	
	1'	yes	1.8 @ 43x4 = 172	
	2'		2.6 @ 73x4 = 292	
SP3	Surf	yes	3.6 @ 125x4 = 500	
	1'	yes	1.8 @ 43x4 = 172	
	2'			
	3'			
	4'			
	6'			
	8'			
	10'			
	12'			
	Surf	yes	3.6 @ 125x4 = 500	
	1'	yes	1.8 @ 43x4 = 172	
	2'			

Sample Point = SP1 @ ## etc

Floor = FL1 etc

Sidewall = SW1 etc

Horizontal = HZ1 etc

Refusal = SP1 @ 4'-R

GPS Sample Points, Center of Comp Areas

Test Trench = TT1 @ ##

Resamples = SP1b @ 5' or SW #1b

Stockpile = Stockpile #1

Attachment IV

Laboratory Analytical Results



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 15, 2022

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: RIO STATE #3 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/14/22 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
 KRISTIN POPE
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

Received: 02/14/2022
 Reported: 02/15/2022
 Project Name: RIO STATE #3 RELEASE
 Project Number: NONE GIVEN
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SSA - 1 @ 0-2' (H220560-01)

Chloride, SM4500CI-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	02/15/2022	ND	432	108	400	0.00	

Sample ID: SSA - 1 @ 2-4' (H220560-02)

Chloride, SM4500CI-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	02/15/2022	ND	432	108	400	0.00	

Sample ID: SSA - 2 @ 0-2' (H220560-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/15/2022	ND	432	108	400	0.00	

Sample ID: SSA - 2 @ 2-4' (H220560-04)

Chloride, SM4500CI-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	02/15/2022	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

[illegible]



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 15, 2022

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: RIO STATE #3 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/14/22 11:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' at the beginning.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	02/14/2022	Sampling Date:	01/19/2022
Reported:	02/15/2022	Sampling Type:	Soil
Project Name:	RIO STATE #3 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MURCHISON- EDDY CO.		

Sample ID: SSA - 1 @ 0-2' (H220561-01)

TPH 8015M	mg/kg	Analyzed By: CK						I-03, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	891	10.0	02/15/2022	ND	208	104	200	0.994	
DRO >C10-C28*	2160	10.0	02/15/2022	ND	225	112	200	3.80	
EXT DRO >C28-C36	25.4	10.0	02/15/2022	ND					

Surrogate: 1-Chlorooctane 254 % 66.9-136

Surrogate: 1-Chlorooctadecane 136 % 59.5-142

Sample ID: SSA - 1 @ 2-4' (H220561-02)

TPH 8015M	mg/kg	Analyzed By: CK						I-03, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	415	10.0	02/15/2022	ND	208	104	200	0.994	
DRO >C10-C28*	928	10.0	02/15/2022	ND	225	112	200	3.80	
EXT DRO >C28-C36	11.2	10.0	02/15/2022	ND					

Surrogate: 1-Chlorooctane 175 % 66.9-136

Surrogate: 1-Chlorooctadecane 135 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
 KRISTIN POPE
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

Received: 02/14/2022
 Reported: 02/15/2022
 Project Name: RIO STATE #3 RELEASE
 Project Number: NONE GIVEN
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SSA - 2 @ 0-2' (H220561-03)

TPH 8015M	mg/kg	Analyzed By: CK						I-03, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2620	10.0	02/15/2022	ND	208	104	200	0.994	
DRO >C10-C28*	4010	10.0	02/15/2022	ND	225	112	200	3.80	
EXT DRO >C28-C36	38.3	10.0	02/15/2022	ND					

Surrogate: 1-Chlorooctane 429 % 66.9-136

Surrogate: 1-Chlorooctadecane 147 % 59.5-142

Sample ID: SSA - 2 @ 2-4' (H220561-04)

TPH 8015M	mg/kg	Analyzed By: CK						I-03, S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	914	10.0	02/15/2022	ND	208	104	200	0.994	
DRO >C10-C28*	1780	10.0	02/15/2022	ND	225	112	200	3.80	
EXT DRO >C28-C36	14.1	10.0	02/15/2022	ND					

Surrogate: 1-Chlorooctane 248 % 66.9-136

Surrogate: 1-Chlorooctadecane 139 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
I-03	This result was extracted outside of the EPA recommended holding time of 14 days.
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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: <u>RT Hicks Consultants</u>		P.O. #:		BILL TO										ANALYSIS REQUEST																									
Project Manager: <u>Kristin Pope</u>		Company: <u>RT Hicks</u>																																					
Address: <u>901 Rio Grande Blvd NW, E-142</u>		Attn: <u>Randy</u>																																					
City: <u>Albuquerque</u>		Address:																																					
Phone #: <u>505-302-6755</u>		Fax #:																																					
Project #:		City:																																					
Project Name: <u>Rio St. #3 Release</u>		State:																																					
Project Location: <u>Eddy Co.</u>		Zip:																																					
Sample Name: <u>Kristin Pope</u>		Phone #: <u>505-266-5004</u>																																					
Fax #:		Fax #:																																					
FOR LAB USE ONLY		MATRIX		PRESERV		SAMPLING																																	
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME											
1 SSA-1 @ 0-2 ft		1		1		1		X		X		X		X		X		X		X		X		X		1-19-22 0915		1-19-22 0915		TPH 8015M									
2 SSA-1 @ 2-4 ft		2		2		2		X		X		X		X		X		X		X		X		X		1-19-22 0920		1-19-22 0920											
3 SSA-2 @ 0-2 ft		3		3		3		X		X		X		X		X		X		X		X		X		1-19-22 0933		1-19-22 0933											
4 SSA-2 @ 2-4 ft		4		4		4		X		X		X		X		X		X		X		X		X		1-19-22 0937		1-19-22 0937											
H320561																																							
PLEASE NOTE: Liability and Damages. Cardinal's liability and clients' exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		Relinquished By: <u>Kristin Pope</u>		Date: <u>2/14/22</u>		Received By: <u>[Signature]</u>		Time: <u>4:41</u>		Date: <u>2/14/22</u>		Received By: <u>[Signature]</u>		Time: <u>11:05</u>		Sample Condition		Cool Intact		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Checked BY: (Initials)		Y-O		Email to <u>kristin@rthicksconsult.com</u> , <u>R@...</u>													
Delivered By: (Circle One)		3.3c		C-O.5c																																			
Sampler - UPS - Bus - Other:		28c		#113																																			



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 28, 2022

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: RIO STATE #3 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 01/24/22 11:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-21-14. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 01/24/2022
Reported: 01/28/2022
Project Name: RIO STATE #3 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BG @ 0-4' BGS (H220256-01)

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	01/27/2022	ND	2.14	107	2.00	1.10	
Toluene*	<0.050	0.050	01/27/2022	ND	2.03	102	2.00	0.677	
Ethylbenzene*	<0.050	0.050	01/27/2022	ND	2.04	102	2.00	0.527	
Total Xylenes*	<0.150	0.150	01/27/2022	ND	6.21	103	6.00	0.448	
Total BTEX	<0.300	0.300	01/27/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

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	01/26/2022	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	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	<10.0	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	<10.0	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 79.6 % 66.9-136

Surrogate: 1-Chlorooctadecane 77.9 % 59.5-142

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 01/24/2022
Reported: 01/28/2022
Project Name: RIO STATE #3 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 1 @ 0-4' BGS (H220256-02)

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	01/28/2022	ND	2.14	107	2.00	1.10	
Toluene*	4.57	0.500	01/28/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	18.0	0.500	01/28/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	89.5	1.50	01/28/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTEX	112	3.00	01/28/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 395 % 69.9-140

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	01/26/2022	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1540	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	3750	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	21.6	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 341 % 66.9-136

Surrogate: 1-Chlorooctadecane 78.5 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 01/24/2022
Reported: 01/28/2022
Project Name: RIO STATE #3 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 2 @ 0-4' BGS (H220256-03)

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	01/28/2022	ND	2.14	107	2.00	1.10	
Toluene*	7.00	0.500	01/28/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	21.2	0.500	01/28/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	108	1.50	01/28/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTEX	136	3.00	01/28/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 424 % 69.9-140

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	01/26/2022	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2860	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	7150	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	38.2	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 378 % 66.9-136

Surrogate: 1-Chlorooctadecane 87.0 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 01/24/2022
Reported: 01/28/2022
Project Name: RIO STATE #3 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 3 @ 0-4' BGS (H220256-04)

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/27/2022	ND	2.14	107	2.00	1.10	
Toluene*	0.074	0.050	01/27/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	0.791	0.050	01/27/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	3.66	0.150	01/27/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTEx	4.53	0.300	01/27/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 313 % 69.9-140

Chloride, SM4500CI-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	01/26/2022	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*	28.3	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	126	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	<10.0	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 97.0 % 66.9-136

Surrogate: 1-Chlorooctadecane 83.7 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
 KRISTIN POPE
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

Received: 01/24/2022
 Reported: 01/28/2022
 Project Name: RIO STATE #3 RELEASE
 Project Number: NONE GIVEN
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SSA - 4 @ 0-4' BGS (H220256-05)

BTEx 8021B		mg/kg	Analyzed By: MS/					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/27/2022	ND	2.14	107	2.00	1.10	
Toluene*	0.050	0.050	01/27/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	0.823	0.050	01/27/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	3.18	0.150	01/27/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTEX	4.05	0.300	01/27/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 294 % 69.9-140

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	01/26/2022	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	134	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	602	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	<10.0	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 145 % 66.9-136

Surrogate: 1-Chlorooctadecane 86.8 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 01/24/2022
Reported: 01/28/2022
Project Name: RIO STATE #3 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 5 @ 0-4' BGS (H220256-06)

BTX 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/27/2022	ND	2.14	107	2.00	1.10	
Toluene*	<0.050	0.050	01/27/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	0.314	0.050	01/27/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	1.35	0.150	01/27/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTX	1.67	0.300	01/27/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 201 % 69.9-140

Chloride, SM4500CI-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	01/26/2022	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*	37.5	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	221	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	<10.0	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 104 % 66.9-136

Surrogate: 1-Chlorooctadecane 82.7 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 01/24/2022
Reported: 01/28/2022
Project Name: RIO STATE #3 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 6 @ 0-4' BGS (H220256-07)

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/27/2022	ND	2.14	107	2.00	1.10	
Toluene*	0.117	0.050	01/27/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	1.14	0.050	01/27/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	5.56	0.150	01/27/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTEX	6.82	0.300	01/27/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 409 % 69.9-140

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	01/26/2022	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*	51.8	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	366	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	10.4	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 121 % 66.9-136

Surrogate: 1-Chlorooctadecane 95.9 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
 KRISTIN POPE
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

Received: 01/24/2022
 Reported: 01/28/2022
 Project Name: RIO STATE #3 RELEASE
 Project Number: NONE GIVEN
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SSA - 1 @ 4.2' BGS (H220256-08)

BTX 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	01/28/2022	ND	2.14	107	2.00	1.10	
Toluene*	2.77	0.500	01/28/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	12.4	0.500	01/28/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	62.3	1.50	01/28/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTX	77.5	3.00	01/28/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 338 % 69.9-140

Chloride, SM4500CI-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	01/26/2022	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	691	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	1760	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	<10.0	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 285 % 66.9-136

Surrogate: 1-Chlorooctadecane 102 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 01/24/2022
Reported: 01/28/2022
Project Name: RIO STATE #3 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 2 @ 4.2' BGS (H220256-09)

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	01/28/2022	ND	2.14	107	2.00	1.10	
Toluene*	4.05	0.500	01/28/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	15.3	0.500	01/28/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	83.0	1.50	01/28/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTEX	102	3.00	01/28/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 381 % 69.9-140

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	01/26/2022	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1260	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	3150	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	21.2	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 245 % 66.9-136

Surrogate: 1-Chlorooctadecane 98.9 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received:	01/24/2022	Sampling Date:	01/19/2022
Reported:	01/28/2022	Sampling Type:	Soil
Project Name:	RIO STATE #3 RELEASE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	MURCHISON- EDDY CO.		

Sample ID: SSA - 3 @ 4.2' BGS (H220256-10)

BTX 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/27/2022	ND	2.14	107	2.00	1.10	
Toluene*	<0.050	0.050	01/27/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	0.383	0.050	01/27/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	1.66	0.150	01/27/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTX	2.04	0.300	01/27/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 219 % 69.9-140

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	01/26/2022	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*	10.5	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	54.0	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	10.8	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 92.7 % 66.9-136

Surrogate: 1-Chlorooctadecane 90.0 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
 KRISTIN POPE
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

Received: 01/24/2022
 Reported: 01/28/2022
 Project Name: RIO STATE #3 RELEASE
 Project Number: NONE GIVEN
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SSA - 4 @ 4.2' BGS (H220256-11)

BTX 8021B		mg/kg	Analyzed By: MS/					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/28/2022	ND	2.14	107	2.00	1.10	
Toluene*	0.170	0.050	01/28/2022	ND	2.03	102	2.00	0.677	GC-NC1
Ethylbenzene*	1.57	0.050	01/28/2022	ND	2.04	102	2.00	0.527	GC-NC1
Total Xylenes*	7.82	0.150	01/28/2022	ND	6.21	103	6.00	0.448	GC-NC1
Total BTX	9.57	0.300	01/28/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 487 % 69.9-140

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/26/2022	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*	58.0	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	219	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	15.2	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 116 % 66.9-136

Surrogate: 1-Chlorooctadecane 97.0 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 01/24/2022
Reported: 01/28/2022
Project Name: RIO STATE #3 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 5 @ 4.2' BGS (H220256-12)

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/26/2022	ND	2.10	105	2.00	3.67	
Toluene*	<0.050	0.050	01/26/2022	ND	2.01	100	2.00	3.55	GC-NC
Ethylbenzene*	0.845	0.050	01/26/2022	ND	2.02	101	2.00	3.98	GC-NC1
Total Xylenes*	3.04	0.150	01/26/2022	ND	6.11	102	6.00	4.08	GC-NC1
Total BTEx	3.89	0.300	01/26/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 291 % 69.9-140

Chloride, SM4500CI-B			mg/kg					Analyzed By: AC	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/26/2022	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*	13.8	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	102	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	<10.0	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 103 % 66.9-136

Surrogate: 1-Chlorooctadecane 97.0 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 01/24/2022
Reported: 01/28/2022
Project Name: RIO STATE #3 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 6 @ 4.2' BGS (H220256-13)

BTEx 8021B		mg/kg		Analyzed By: MS/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/26/2022	ND	2.10	105	2.00	3.67	
Toluene*	<0.050	0.050	01/26/2022	ND	2.01	100	2.00	3.55	GC-NC
Ethylbenzene*	0.956	0.050	01/26/2022	ND	2.02	101	2.00	3.98	GC-NC1
Total Xylenes*	3.47	0.150	01/26/2022	ND	6.11	102	6.00	4.08	GC-NC1
Total BTEX	4.43	0.300	01/26/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 359 % 69.9-140

Chloride, SM4500CI-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	01/26/2022	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*	62.4	10.0	01/27/2022	ND	216	108	200	2.30	
DRO >C10-C28*	329	10.0	01/27/2022	ND	254	127	200	12.5	
EXT DRO >C28-C36	12.4	10.0	01/27/2022	ND					

Surrogate: 1-Chlorooctane 124 % 66.9-136

Surrogate: 1-Chlorooctadecane 94.9 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
 KRISTIN POPE
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

Received: 01/24/2022
 Reported: 01/28/2022
 Project Name: RIO STATE #3 RELEASE
 Project Number: NONE GIVEN
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 01/19/2022
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: BG @ 4.2' BGS (H220256-14)

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	01/26/2022	ND	2.10	105	2.00	3.67		
Toluene*	0.134	0.050	01/26/2022	ND	2.01	100	2.00	3.55	GC-NC1	
Ethylbenzene*	<0.050	0.050	01/26/2022	ND	2.02	101	2.00	3.98		
Total Xylenes*	<0.150	0.150	01/26/2022	ND	6.11	102	6.00	4.08		
Total BTEX	<0.300	0.300	01/26/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 69.9-140

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	01/26/2022	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	01/26/2022	ND	197	98.6	200	2.47	
DRO >C10-C28*	<10.0	10.0	01/26/2022	ND	227	113	200	3.90	
EXT DRO >C28-C36	<10.0	10.0	01/26/2022	ND					

Surrogate: 1-Chlorooctane 90.2 % 66.9-136

Surrogate: 1-Chlorooctadecane 88.2 % 59.5-142

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
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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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: R. T. Hicks Consultants		BILL TO		ANALYSIS REQUEST	
Project Manager:		P.O. #:			
Address: 901 Rio Grande Blvd NW, Suite F-142		Company: R.T. Hicks Consultants			
City: Albuquerque		Attn: Randy Hicks			
State: NM Zip: 87104		Address:			
Phone #: 505-266-5004 Fax #:		City:			
Project #:		State: Zip:			
Project Name: Rio State #3 release		Phone #:			
Project Location: Eddy County		Fax #:			
Sampler Name: Kristin Pope		FOR LAB USE ONLY			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	TPH	BTEX	Chloride	RP
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:						
HB30356	B4 @ 0-4 ft B65	C	1								1/19/22	0908				
	SSA-1 0-4 ft B65	C	1									0920				
	SSA-2 0-4 ft B65	C	1									0937				
	SSA-3 0-4 ft B65	C	1									0949				
	SSA-4 0-4 ft B65	C	1									1000				
	SSA-5 0-4 ft B65	C	1									1010				
	SSA-6 0-4 ft B65	C	1									1018				

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Relinquished By: <i>Kristin Pope</i>	Date: 1-24-22	Received By: <i>Randy Hicks</i>
Time: 1125		
Delivered By: (Circle One) <i>23c</i>	Sample Condition	CHECKED BY: (Initials) <i>RP</i>
UPS - Bus - Other:	<input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	

Phone Result: ☐ Yes ☐ No Add'l Phone #: _____

Fax Result: ☐ Yes ☐ No Add'l Fax #: _____

REMARKS:

Email to kristin@rthicksconsult.com



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: R.T. Hicks Consultants		BILL TO		ANALYSIS REQUEST																
Project Manager:		P.O. #:																		
Address: 901 Rio Grande Blvd NW, Suite F-142		Company: R.T. Hicks Consultants																		
City: Albuquerque		Attn: Randy Hicks																		
State: NM ZIP: 87104		Address:																		
Phone #: 505-266-5004		City:																		
Fax #: Project Owner: Murchison		State:																		
Project Name: Rio State #3 release		Zip:																		
Project Location: Eddy County		Phone #:																		
Fax #:																				
Sampler Name: Kristin Pope																				
FOR LAB USE ONLY																				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING										
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME						
H200256	SSA-1 @ 4.2 ft BGS	G	1										1/19/22	0922	TPH 8015M					
9	SSA-2 @ 4.2 ft BGS	G	1											0940	BTEX					
10	SSA-3 @ 4.2 ft BGS	G	1											0954	Chloride					
11	SSA-4 @ 4.2 ft BGS	G	1											1004						
12	SSA-5 @ 4.2 ft BGS	G	1											1012						
13	SSA-6 @ 4.2 ft BGS	G	1											1021						
14	BG @ 4.2 ft BGS	G	1											0912						

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Relinquished By: Kristin Pope	Date: 1-24-22	Received By: [Signature]	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: [Signature]	Date: 1/25	Received By: [Signature]	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
REMARKS:				
Email to kristin@rthicksconsult.com				

Delivered By: (Circle One) 23	Sample Condition	CHECKED BY: (Initials)
Sampler - UPS - Bus - Other:	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	YO.

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

2 of 2



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 13, 2023

KRISTIN POPE

R T HICKS CONSULTANTS

901 RIO GRANDE BLVD SUITE F-142

ALBUQUERQUE, NM 87104

RE: RIO STATE #003 RELEASE

Enclosed are the results of analyses for samples received by the laboratory on 02/08/23 11:12.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. 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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 1 @ 0-2' (H230547-01)

BTEX 8260B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/10/2023	ND	1.89	94.4	2.00	5.21	
Toluene*	0.067	0.025	02/10/2023	ND	2.07	103	2.00	3.93	
Ethylbenzene*	0.379	0.025	02/10/2023	ND	2.13	106	2.00	4.69	
Total Xylenes*	3.54	0.075	02/10/2023	ND	6.29	105	6.00	4.19	
Total BTEX	3.99	0.150	02/10/2023	ND					

Surrogate: Dibromofluoromethane 99.8 % 86.7-111

Surrogate: Toluene-d8 111 % 89.3-110

Surrogate: 4-Bromofluorobenzene 234 % 88.2-108

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	02/09/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS							S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	1390	10.0	02/10/2023	ND	189	94.7	200	1.45		
DRO >C10-C28*	2170	10.0	02/10/2023	ND	177	88.7	200	8.70		
EXT DRO >C28-C36	<10.0	10.0	02/10/2023	ND						

Surrogate: 1-Chlorooctane 229 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 1 @ 2-4' (H230547-02)

BTEx 8260B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	02/10/2023	ND	1.89	94.4	2.00	5.21	
Toluene*	0.966	0.500	02/10/2023	ND	2.07	103	2.00	3.93	
Ethylbenzene*	3.11	0.500	02/10/2023	ND	2.13	106	2.00	4.69	
Total Xylenes*	13.0	1.50	02/10/2023	ND	6.29	105	6.00	4.19	
Total BTEX	17.1	3.00	02/10/2023	ND					

Surrogate: Dibromofluoromethane 101 % 86.7-111
Surrogate: Toluene-d8 102 % 89.3-110
Surrogate: 4-Bromofluorobenzene 113 % 88.2-108

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/09/2023	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*	290	10.0	02/10/2023	ND	189	94.7	200	1.45	
DRO >C10-C28*	467	10.0	02/10/2023	ND	177	88.7	200	8.70	
EXT DRO >C28-C36	<10.0	10.0	02/10/2023	ND					

Surrogate: 1-Chlorooctane 131 % 48.2-134
Surrogate: 1-Chlorooctadecane 120 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 1 @ 4.2' (H230547-03)

BTX 8260B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	02/10/2023	ND	1.89	94.4	2.00	5.21	
Toluene*	1.71	0.500	02/10/2023	ND	2.07	103	2.00	3.93	
Ethylbenzene*	4.13	0.500	02/10/2023	ND	2.13	106	2.00	4.69	
Total Xylenes*	15.2	1.50	02/10/2023	ND	6.29	105	6.00	4.19	
Total BTX	21.1	3.00	02/10/2023	ND					

Surrogate: Dibromofluoromethane 97.9 % 86.7-111
Surrogate: Toluene-d8 99.0 % 89.3-110
Surrogate: 4-Bromofluorobenzene 114 % 88.2-108

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	02/09/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	504	10.0	02/09/2023	ND	196	98.0	200	0.636	QM-07
DRO >C10-C28*	704	10.0	02/09/2023	ND	183	91.6	200	0.694	QM-07
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					

Surrogate: 1-Chlorooctane 140 % 48.2-134
Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 2 @ 0-2' (H230547-04)

BTX 8260B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	02/10/2023	ND	1.89	94.4	2.00	5.21	
Toluene*	0.843	0.500	02/10/2023	ND	2.07	103	2.00	3.93	
Ethylbenzene*	1.57	0.500	02/10/2023	ND	2.13	106	2.00	4.69	
Total Xylenes*	9.88	1.50	02/10/2023	ND	6.29	105	6.00	4.19	
Total BTX	12.3	3.00	02/10/2023	ND					

Surrogate: Dibromofluoromethane 99.9 % 86.7-111
Surrogate: Toluene-d8 102 % 89.3-110
Surrogate: 4-Bromofluorobenzene 120 % 88.2-108

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/09/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2560	10.0	02/09/2023	ND	196	98.0	200	0.636	
DRO >C10-C28*	3570	10.0	02/09/2023	ND	183	91.6	200	0.694	
EXT DRO >C28-C36	29.2	10.0	02/09/2023	ND					

Surrogate: 1-Chlorooctane 338 % 48.2-134
Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 2 @ 2-4' (H230547-05)

BTX 8260B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	02/10/2023	ND	1.90	94.9	2.00	4.02	
Toluene*	4.99	0.500	02/10/2023	ND	2.07	104	2.00	3.63	
Ethylbenzene*	7.67	0.500	02/10/2023	ND	2.13	106	2.00	3.88	
Total Xylenes*	47.0	1.50	02/10/2023	ND	6.25	104	6.00	4.30	
Total BTX	59.6	3.00	02/10/2023	ND					

Surrogate: Dibromofluoromethane 98.5 % 86.7-111
Surrogate: Toluene-d8 101 % 89.3-110
Surrogate: 4-Bromofluorobenzene 117 % 88.2-108

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	02/09/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2600	10.0	02/09/2023	ND	196	98.0	200	0.636	
DRO >C10-C28*	3050	10.0	02/09/2023	ND	183	91.6	200	0.694	
EXT DRO >C28-C36	26.6	10.0	02/09/2023	ND					

Surrogate: 1-Chlorooctane 313 % 48.2-134
Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 2 @ 4.2' (H230547-06)

BTX 8260B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	02/10/2023	ND	1.90	94.9	2.00	4.02	
Toluene*	3.15	0.500	02/10/2023	ND	2.07	104	2.00	3.63	
Ethylbenzene*	5.67	0.500	02/10/2023	ND	2.13	106	2.00	3.88	
Total Xylenes*	34.7	1.50	02/10/2023	ND	6.25	104	6.00	4.30	
Total BTX	43.5	3.00	02/10/2023	ND					

Surrogate: Dibromofluoromethane 96.8 % 86.7-111
Surrogate: Toluene-d8 98.5 % 89.3-110
Surrogate: 4-Bromofluorobenzene 117 % 88.2-108

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/09/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1710	10.0	02/09/2023	ND	196	98.0	200	0.636	
DRO >C10-C28*	2050	10.0	02/09/2023	ND	183	91.6	200	0.694	
EXT DRO >C28-C36	18.6	10.0	02/09/2023	ND					

Surrogate: 1-Chlorooctane 242 % 48.2-134
Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 7 @ 0-2' (H230547-07)

BTX 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	02/10/2023	ND	1.90	94.9	2.00	4.02		
Toluene*	<0.025	0.025	02/10/2023	ND	2.07	104	2.00	3.63		
Ethylbenzene*	<0.025	0.025	02/10/2023	ND	2.13	106	2.00	3.88		
Total Xylenes*	<0.075	0.075	02/10/2023	ND	6.25	104	6.00	4.30		
Total BTX	<0.150	0.150	02/10/2023	ND						

Surrogate: Dibromofluoromethane 93.4 % 86.7-111
Surrogate: Toluene-d8 103 % 89.3-110
Surrogate: 4-Bromofluorobenzene 99.8 % 88.2-108

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/09/2023	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	02/09/2023	ND	196	98.0	200	0.636	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	183	91.6	200	0.694	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134
Surrogate: 1-Chlorooctadecane 95.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 7 @ 2-4' (H230547-08)

BTX 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	02/10/2023	ND	1.90	94.9	2.00	4.02		
Toluene*	<0.025	0.025	02/10/2023	ND	2.07	104	2.00	3.63		
Ethylbenzene*	<0.025	0.025	02/10/2023	ND	2.13	106	2.00	3.88		
Total Xylenes*	<0.075	0.075	02/10/2023	ND	6.25	104	6.00	4.30		
Total BTX	<0.150	0.150	02/10/2023	ND						

Surrogate: Dibromofluoromethane 94.9 % 86.7-111
Surrogate: Toluene-d8 102 % 89.3-110
Surrogate: 4-Bromofluorobenzene 99.8 % 88.2-108

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	02/09/2023	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	02/09/2023	ND	196	98.0	200	0.636	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	183	91.6	200	0.694	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134
Surrogate: 1-Chlorooctadecane 96.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 7 @ 4.2' (H230547-09)

BTX 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	02/10/2023	ND	1.90	94.9	2.00	4.02		
Toluene*	<0.025	0.025	02/10/2023	ND	2.07	104	2.00	3.63		
Ethylbenzene*	<0.025	0.025	02/10/2023	ND	2.13	106	2.00	3.88		
Total Xylenes*	<0.075	0.075	02/10/2023	ND	6.25	104	6.00	4.30		
Total BTX	<0.150	0.150	02/10/2023	ND						

Surrogate: Dibromofluoromethane 94.6 % 86.7-111
Surrogate: Toluene-d8 100 % 89.3-110
Surrogate: 4-Bromofluorobenzene 99.2 % 88.2-108

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	02/09/2023	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	02/09/2023	ND	196	98.0	200	0.636	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	183	91.6	200	0.694	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					

Surrogate: 1-Chlorooctane 90.0 % 48.2-134
Surrogate: 1-Chlorooctadecane 95.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 8 @ 0-2' (H230547-10)

BTEx 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.025	0.025	02/10/2023	ND	1.90	94.9	2.00	4.02	
Toluene*	<0.025	0.025	02/10/2023	ND	2.07	104	2.00	3.63	
Ethylbenzene*	<0.025	0.025	02/10/2023	ND	2.13	106	2.00	3.88	
Total Xylenes*	<0.075	0.075	02/10/2023	ND	6.25	104	6.00	4.30	
Total BTEX	<0.150	0.150	02/10/2023	ND					

Surrogate: Dibromofluoromethane 96.3 % 86.7-111
Surrogate: Toluene-d8 102 % 89.3-110
Surrogate: 4-Bromofluorobenzene 101 % 88.2-108

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	02/09/2023	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	02/09/2023	ND	196	98.0	200	0.636	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	183	91.6	200	0.694	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					

Surrogate: 1-Chlorooctane 88.6 % 48.2-134
Surrogate: 1-Chlorooctadecane 95.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

R T HICKS CONSULTANTS
KRISTIN POPE
901 RIO GRANDE BLVD SUITE F-142
ALBUQUERQUE NM, 87104
Fax To: NONE

Received: 02/08/2023
Reported: 02/13/2023
Project Name: RIO STATE #003 RELEASE
Project Number: NONE GIVEN
Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SSA - 8 @ 2-4' (H230547-11)

BTX 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	02/10/2023	ND	1.90	94.9	2.00	4.02		
Toluene*	<0.025	0.025	02/10/2023	ND	2.07	104	2.00	3.63		
Ethylbenzene*	<0.025	0.025	02/10/2023	ND	2.13	106	2.00	3.88		
Total Xylenes*	<0.075	0.075	02/10/2023	ND	6.25	104	6.00	4.30		
Total BTX	<0.150	0.150	02/10/2023	ND						

Surrogate: Dibromofluoromethane 94.7 % 86.7-111
Surrogate: Toluene-d8 103 % 89.3-110
Surrogate: 4-Bromofluorobenzene 100 % 88.2-108

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/09/2023	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	02/09/2023	ND	196	98.0	200	0.636	
DRO >C10-C28*	<10.0	10.0	02/09/2023	ND	183	91.6	200	0.694	
EXT DRO >C28-C36	<10.0	10.0	02/09/2023	ND					

Surrogate: 1-Chlorooctane 88.4 % 48.2-134
Surrogate: 1-Chlorooctadecane 94.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

R T HICKS CONSULTANTS
 KRISTIN POPE
 901 RIO GRANDE BLVD SUITE F-142
 ALBUQUERQUE NM, 87104
 Fax To: NONE

Received: 02/08/2023
 Reported: 02/13/2023
 Project Name: RIO STATE #003 RELEASE
 Project Number: NONE GIVEN
 Project Location: MURCHISON- EDDY CO.

Sampling Date: 02/07/2023
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SSA - 8 @ 4.2' (H230547-12)

BTEx 8260B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.025	0.025	02/10/2023	ND	1.90	94.9	2.00	4.02		
Toluene*	<0.025	0.025	02/10/2023	ND	2.07	104	2.00	3.63		
Ethylbenzene*	<0.025	0.025	02/10/2023	ND	2.13	106	2.00	3.88		
Total Xylenes*	<0.075	0.075	02/10/2023	ND	6.25	104	6.00	4.30		
Total BTEX	<0.150	0.150	02/10/2023	ND						

Surrogate: Dibromofluoromethane 92.1 % 86.7-111
 Surrogate: Toluene-d8 100 % 89.3-110
 Surrogate: 4-Bromofluorobenzene 99.3 % 88.2-108

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	02/09/2023	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	02/10/2023	ND	196	98.0	200	0.636	
DRO >C10-C28*	<10.0	10.0	02/10/2023	ND	183	91.6	200	0.694	
EXT DRO >C28-C36	<10.0	10.0	02/10/2023	ND					

Surrogate: 1-Chlorooctane 95.4 % 48.2-134
 Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



CARDINAL
Laboratories

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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

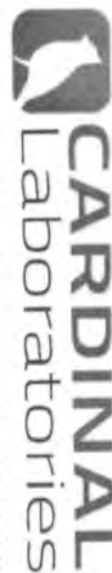
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FOR LAB USE ONLY		Sample I.D.		(G)RAB OR (C)OMP.		MATRIX					PRESERVATION		DATE		TIME		ANALYSIS	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	ANALYSIS			
H230547	1	SSA-1 @ 0-2	P1	G									2/7/23	0941	Chloride			
	2	SSA-1 @ 2-4	P1	G										0943	TPH 8015			
	3	SSA-1 @ 4.2	P1	G										0945	BTEX			
	4	SSA-2 @ 0-2	P1	G										1000				
	5	SSA-2 @ 2-4	P1	G										1008				
	6	SSA-2 @ 4.2	P1	G										1012				
	7	SSA-7 @ 0-2	P1	G										1024				
	8	SSA-7 @ 2-4	P1	G										1028				
	9	SSA-7 @ 4.2	P1	G										1033				
	10	SSA-8 @ 0-2	P1	G										1036				

[illegible]

If no event was observed, please return this form to the service. If the event was observed, please return this form to the service. If the event was observed, please return this form to the service.									
Initials or Successors Initials and/or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons of coverage.									
Relinquished By:		Date: 2/8/23		Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Time: 0800		Received By:		All Results are emailed. Please provide Email address:		kristin@rthicksconsult.com, R@rthicksconsult.com	
Relinquished By:		Date: 2-8-23		Received By:		REMARKS:		Turnaround Time:	
Relinquished By:		Time: 1112		Received By:		Standard <input type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) <input type="checkbox"/>	
Delivered By: (Circle One)		Observed Temp. °C 4.8		Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/>		CHECKED BY: (Initials)		Thermometer ID #113	
Delivered By: (Circle One)		Corrected Temp. °C 4.2		Cool <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		Corrected Temp. °C		Bacteria (only) <input type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C 4.2		Cool <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		Corrected Temp. °C		Bacteria (only) <input type="checkbox"/>	

+ Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinalabbnsnm.com



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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 12, 2024

DANIEL DOMINGUEZ

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: RIO STATE #3

Enclosed are the results of analyses for samples received by the laboratory on 06/05/24 16:28.

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 accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SP 1 - SURF (H243207-01)

BTEX 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80	
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35	
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39	
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1	
Total BTEX	<0.300	0.300	06/07/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/07/2024	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	06/06/2024	ND	193	96.3	200	1.94	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	214	107	200	0.944	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 106 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SP 1 - 1' (H243207-02)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80		
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1		
Total BTEX	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

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	06/07/2024	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	06/07/2024	ND	193	96.3	200	1.94	
DRO >C10-C28*	<10.0	10.0	06/07/2024	ND	214	107	200	0.944	
EXT DRO >C28-C36	<10.0	10.0	06/07/2024	ND					

Surrogate: 1-Chlorooctane 74.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SP 2 - SURF (H243207-03)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80		
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1		
Total BTEX	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	800	16.0	06/07/2024	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	06/07/2024	ND	193	96.3	200	1.94	
DRO >C10-C28*	101	10.0	06/07/2024	ND	214	107	200	0.944	
EXT DRO >C28-C36	34.9	10.0	06/07/2024	ND					

Surrogate: 1-Chlorooctane 87.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 91.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SP 2 - 2' (H243207-04)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80	
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35	
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39	
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1	
Total BTEX	<0.300	0.300	06/07/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 71.5-134

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	06/07/2024	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	06/07/2024	ND	193	96.3	200	1.94	
DRO >C10-C28*	<10.0	10.0	06/07/2024	ND	214	107	200	0.944	
EXT DRO >C28-C36	<10.0	10.0	06/07/2024	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SP 3 - SURF (H243207-05)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80	
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35	
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39	GC-NC
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1	
Total BTEX	<0.300	0.300	06/07/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 131 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	06/07/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	105	10.0	06/07/2024	ND	193	96.3	200	1.94	
DRO >C10-C28*	4960	10.0	06/07/2024	ND	214	107	200	0.944	
EXT DRO >C28-C36	267	10.0	06/07/2024	ND					

Surrogate: 1-Chlorooctane 159 % 48.2-134

Surrogate: 1-Chlorooctadecane 106 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SP 3 - 1' (H243207-06)

BTEx 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/07/2024	ND	1.70	85.0	2.00	4.80	
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35	GC-NC
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39	GC-NC
Total Xylenes*	0.535	0.150	06/07/2024	ND	6.32	105	6.00	10.1	GC-NC1
Total BTEX	0.535	0.300	06/07/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 285 % 71.5-134

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	06/07/2024	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*	243	10.0	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	1090	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SP 4 - SURF (H243207-07)

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/10/2024	ND	1.70	85.0	2.00	4.80	
Toluene*	<0.050	0.050	06/10/2024	ND	1.91	95.4	2.00	4.35	
Ethylbenzene*	0.107	0.050	06/10/2024	ND	2.08	104	2.00	9.39	GC-NC1
Total Xylenes*	0.524	0.150	06/10/2024	ND	6.32	105	6.00	10.1	GC-NC1
Total BTEX	0.630	0.300	06/10/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 146 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: HM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/07/2024	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*	65.2	10.0	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	3420	10.0	06/06/2024	ND	168	83.8	200	2.73	QM-07
EXT DRO >C28-C36	467	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 85.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: SP 4 - 1' (H243207-08)

BTEx 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	06/10/2024	ND	1.70	85.0	2.00	4.80	
Toluene*	<0.200	0.200	06/10/2024	ND	1.91	95.4	2.00	4.35	GC-NC
Ethylbenzene*	2.60	0.200	06/10/2024	ND	2.08	104	2.00	9.39	GC-NC1
Total Xylenes*	16.8	0.600	06/10/2024	ND	6.32	105	6.00	10.1	GC-NC1
Total BTEX	19.4	1.20	06/10/2024	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 266 % 71.5-134

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	06/07/2024	ND	416	104	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	797	10.0	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	1650	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	24.2	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 180 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: HZ 1 - SURF (H243207-09)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80		
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1		
Total BTEx	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/07/2024	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	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: HZ 1 - 1' (H243207-10)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80		
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1		
Total BTEX	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/07/2024	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	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 79.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: HZ 2 - SURF (H243207-11)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80		
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1		
Total BTEx	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/07/2024	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	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 84.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: HZ 2 - 1' (H243207-12)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80	
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35	
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39	
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1	
Total BTEX	<0.300	0.300	06/07/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/07/2024	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	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 63.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 62.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: HZ 3 - SURF (H243207-13)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80		
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1		
Total BTEx	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/07/2024	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	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 58.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 59.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: HZ 3 - 1' (H243207-14)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80		
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1		
Total BTEX	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/07/2024	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	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 66.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 64.6 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: HZ 4 - SURF (H243207-15)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80		
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1		
Total BTEX	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/07/2024	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	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 73.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.7 % 49.1-148

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Analytical Results For:

Hungry Horse Environmental
 DANIEL DOMINGUEZ
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 06/05/2024
 Reported: 06/12/2024
 Project Name: RIO STATE #3
 Project Number: MURCHISON
 Project Location: UL/ D SEC 36 T18S - R24E

Sampling Date: 06/04/2024
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Shalyn Rodriguez

Sample ID: HZ 4 - 1' (H243207-16)

BTEx 8021B		mg/kg		Analyzed 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	1.70	85.0	2.00	4.80		
Toluene*	<0.050	0.050	06/07/2024	ND	1.91	95.4	2.00	4.35		
Ethylbenzene*	<0.050	0.050	06/07/2024	ND	2.08	104	2.00	9.39		
Total Xylenes*	<0.150	0.150	06/07/2024	ND	6.32	105	6.00	10.1		
Total BTEX	<0.300	0.300	06/07/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/07/2024	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	06/06/2024	ND	176	87.8	200	5.10	
DRO >C10-C28*	<10.0	10.0	06/06/2024	ND	168	83.8	200	2.73	
EXT DRO >C28-C36	<10.0	10.0	06/06/2024	ND					

Surrogate: 1-Chlorooctane 65.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 63.4 % 49.1-148

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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



Page 19 of 20

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Hungry Horse LLC		P.O. #:		BILL TO		ANALYSIS REQUEST																																					
Project Manager: Daniel Dominguez		Company: Murchison Oil & Gas																																									
Address: 4024 Plains Hwy		Attn: Greg Boans																																									
City: Lovington	State: NM	Zip: 88260																																									
Phone #: 575 393-3386	Fax #:	Address: 5325 Sierra Vista																																									
Project #:	Project Owner: Murchison Oil & Gas	City: Carlsbad																																									
Project Name: Rio State #3	State: NM	Zip: 88230																																									
Project Location: U/L D Sec 36 T18S - R24E	Phone #: 575 706-0667																																										
Sampler Name: Jerry Heidelberg	Fax #:																																										
FOR LAB USE ONLY																																											
Lab I.D. Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		Chloride		TPH		BTEX 8021											
9		HZ1-Surf		G 1		X		X		X		X		X		X		X		X		X		6/4/24		X		X		X													
10		HZ1-1'		G 1		X		X		X		X		X		X		X		X		X		6/4/24		X		X		X													
11		HZ2-Surf		G 1		X		X		X		X		X		X		X		X		X		6/4/24		X		X		X													
12		HZ2-1'		G 1		X		X		X		X		X		X		X		X		X		6/4/24		X		X		X													
13		HZ3-Surf		G 1		X		X		X		X		X		X		X		X		X		6/4/24		X		X		X													
14		HZ3-1'		G 1		X		X		X		X		X		X		X		X		X		6/4/24		X		X		X													
15		HZ4-Surf		G 1		X		X		X		X		X		X		X		X		X		6/4/24		X		X		X													
16		HZ4-1'		G 1		X		X		X		X		X		X		X		X		X		6/4/24		X		X		X													
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Relinquished By: <i>[Signature]</i>		Date: 4/6/24		Received By: <i>[Signature]</i>																																							
Relinquished By: <i>[Signature]</i>		Date: 4/24		Received By: <i>[Signature]</i>																																							
Time: 1424																																											
Time:																																											
Delivered By: (Circle One) <i>-8-1c</i>		Sample Condition		CHECKED BY: <i>[Signature]</i>																																							
Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>																																											
Sampler - UPS - Bus - Other: <i>#14D</i>		Cool <input type="checkbox"/> Intact <input type="checkbox"/>																																									
		No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>																																									
		No <input type="checkbox"/> Yes <input checked="" type="checkbox"/>																																									
Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476																																											

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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 386999

QUESTIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:	15363
	Action Number:	386999
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2202454641
Incident Name	NAPP2202454641 RIO STATE 3 @ 30-015-33690
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-33690] RIO STATE #003

Location of Release Source	
Please answer all the questions in this group.	
Site Name	RIO STATE 3
Date Release Discovered	01/03/2022
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Freeze Other (Specify) Produced Water Released: 5 BBL Recovered: 0 BBL Lost: 5 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Cause: Freeze Other (Specify) Condensate Released: 69 BBL Recovered: 12 BBL Lost: 57 BBL.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Load line valve froze and burst.

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QUESTIONS, Page 2

Action 386999

QUESTIONS (continued)

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:	15363
	Action Number:	386999
	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.
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 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.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: Cindy Cottrell Title: Regulatory Coordinator Email: ccottrell@jdmii.com Date: 09/26/2024
--	---

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QUESTIONS, Page 3

Action 386999

QUESTIONS (continued)

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 386999
	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 100 and 500 (ft.)
What method was used to determine the depth to ground water	U.S. Geological Survey
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 500 and 1000 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between ½ and 1 (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 ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

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 Cl B)	800
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	10048
GRO+DRO (EPA SW-846 Method 8015M)	10010
BTEX (EPA SW-846 Method 8021B or 8260B)	136
Benzene (EPA SW-846 Method 8021B or 8260B)	1

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	06/25/2024
On what date will (or did) the final sampling or liner inspection occur	09/18/2024
On what date will (or was) the remediation complete(d)	09/25/2024
What is the estimated surface area (in square feet) that will be reclaimed	1635
What is the estimated volume (in cubic yards) that will be reclaimed	600
What is the estimated surface area (in square feet) that will be remediated	1635
What is the estimated volume (in cubic yards) that will be remediated	600

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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Oil Conservation Division
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Santa Fe, NM 87505

QUESTIONS, Page 4

Action 386999

QUESTIONS (continued)

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:	15363
	Action Number:	386999
	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	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
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	No
OR is the off-site disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No

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: Cindy Cottrell Title: Regulatory Coordinator Email: ccottrell@jdmii.com Date: 09/26/2024
--	---

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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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 5

Action 386999

QUESTIONS (continued)

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 386999
	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

District I

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QUESTIONS, Page 6

Action 386999

QUESTIONS (continued)

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:
	15363
	Action Number:
	386999
Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	383715
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	09/18/2024
What was the (estimated) number of samples that were to be gathered	8
What was the sampling surface area in square feet	1000

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	1635
What was the total volume (cubic yards) remediated	600
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	1635
What was the total volume (in cubic yards) reclaimed	600
Summarize any additional remediation activities not included by answers (above)	Backfilled excavated pad site with clean caliche and contoured for erosion control.

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: Cindy Cottrell Title: Regulatory Coordinator Email: ccottrell@jdmii.com Date: 09/26/2024
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QUESTIONS, Page 7

Action 386999

QUESTIONS (continued)

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID: 15363
	Action Number: 386999
	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 386999

CONDITIONS

Operator: Murchison Oil and Gas, LLC 7250 Dallas Parkway Plano, TX 75024	OGRID:
	15363
	Action Number:
	386999
Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

CONDITIONS

Created By	Condition	Condition Date
bhall	Remediation closure approved.	9/30/2024
bhall	A reclamation report will not be accepted until reclamation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	9/30/2024
bhall	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan.	9/30/2024
bhall	Operator failed to provide proper Sampling Notification pursuant to 19.15.29.12.D.(1).(a) NMAC for the samples collected on 6/26/2024. 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.	9/30/2024