

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

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

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

Incident ID	NCS1934552153
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Enduring Resources	OGRID: 372286
Contact Name: Chad Snell	Contact Telephone: 505-444-0586
Contact email: csnell@enduringresources.com	Incident # (assigned by OCD) NCS1934552153
Contact mailing address: 200 Energy Court	Farmington, New Mexico 87401

Location of Release Source

Latitude 36. 242867 Longitude -107. 534978
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: NE Chaco COM 168H	Site Type: Wellsite
Date Release Discovered: 10/15/2019	API# (if applicable) 30-039-31173

Unit Letter	Section	Township	Range	County
E	12	23N	7W	Rio Arriba

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls): 8	Volume Recovered (bbls): 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

On 10/15/2019, an underground line leak was discovered at this well site. A corrosion hole formed in a '90' on the water dump line from the separator, and 8 bbls of water was released into the soil below the equipment liner near the above ground water tank. The well was shut in and the leak was stopped. Production equipment was moved and closure activities have been completed.

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

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

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: _____ Title: _____
Signature: _____ Date: _____
email: _____ Telephone: _____
<u>OCD Only</u>
Received by: _____ Date: _____

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Site Assessment/Characterization

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

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

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

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

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

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

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

Printed Name: Chad SnellTitle: HSE TechSignature: 

Date:

1/2/20email: csnell@enduringresources.comTelephone: (505)444-0586**OCD Only**

Received by: _____

Date: _____

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Remediation Plan

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

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

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

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Chad SnellTitle: HSE TechSignature: Date: 1/2/20email: csnell@enduringresources.comTelephone: (505)444-0586

OCD Only

Received by: OCDDate: 1/2/2020

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

Closure Approved by: Date: 3/13/2020Printed Name: Cory SmithTitle: Environmental Specialist

NE Chaco COM 168H Remediation Narrative

10/15/2019

An underground line leak was discovered at this well site. A corrosion hole formed in a '90' on the water dump line from the separator, and 8 bbls of water was released into the soil below the equipment liner near the above ground water tank. The well was shut in and the leak was stopped.

10/17/2019

A hydrovac truck was on-site to find the source of the leak and remove impacted soil. Approximately 60 bbls of impacted soil was removed and disposed of. No further excavation could be completed at this time due to impacted areas of the release extending under the on-site production tank.

11/22/2019

Production equipment was removed to continue remediation. A hydrovac truck was onsite and removed an additional 90 bbls of impacted soil.

11/25/2019

Email notification was sent to the NMOCD (Cory Smith) and the BLM (Abiodun Adeloje) that sampling activities would take place on Wednesday November 27th 2019 at 9:30am. See attached "Email Notification" for reference.

11/27/2019

Sampling activities began with Abiodun Adeloje with the BLM onsite to witness. A total of 5 composite samples were taken from the excavation one from each wall and the bottom. Sample were sent in for lab analysis for BTEX, TPH (DRO/GRO/ORO), and Chlorides.

12/3/2019

Analytical report was received and all samples (except for one) were below the least stringent standards listed in Table I 1,000 ppm TPH (DRO and GRO), 2,500 ppm TPH (DRO/GRO/ORO), 10 ppm Benzene, 50 ppm BTEX and 20,000 ppm Chlorides. Due to areas of the release being in the "Top Four Feet" closure standards for those areas would be the most

stringent listed in Table I (100 ppm TPH (DRO/GRO/ORO), 10 ppm Benzene, 50 ppm BTEX and 600 ppm Chlorides). The "South Wall" results indicated that further excavation was needed. The "North Wall", "East Wall", "West Wall" and "Bottom" were below closure standards and need no further excavation. See attached "Sample Results Table" for reference.

12/6/2019

Additional excavation was performed using a backhoe removing an additional 6 cubic yards of impacted soil from the "South Wall" of the excavation. 48 hour notification was sent to the NMOCD and the BLM that final closure sampling of the "South Wall" would take place on Tuesday December 10th 2019 at 10:30am.

12/10/2019

Sampling activities took place, the NMOCD nor the BLM had a representative on-site to witness sampling. One composite sample was taken of the excavated "South Wall" and was sent in for lab analysis. See attached "Sample Map" for reference.

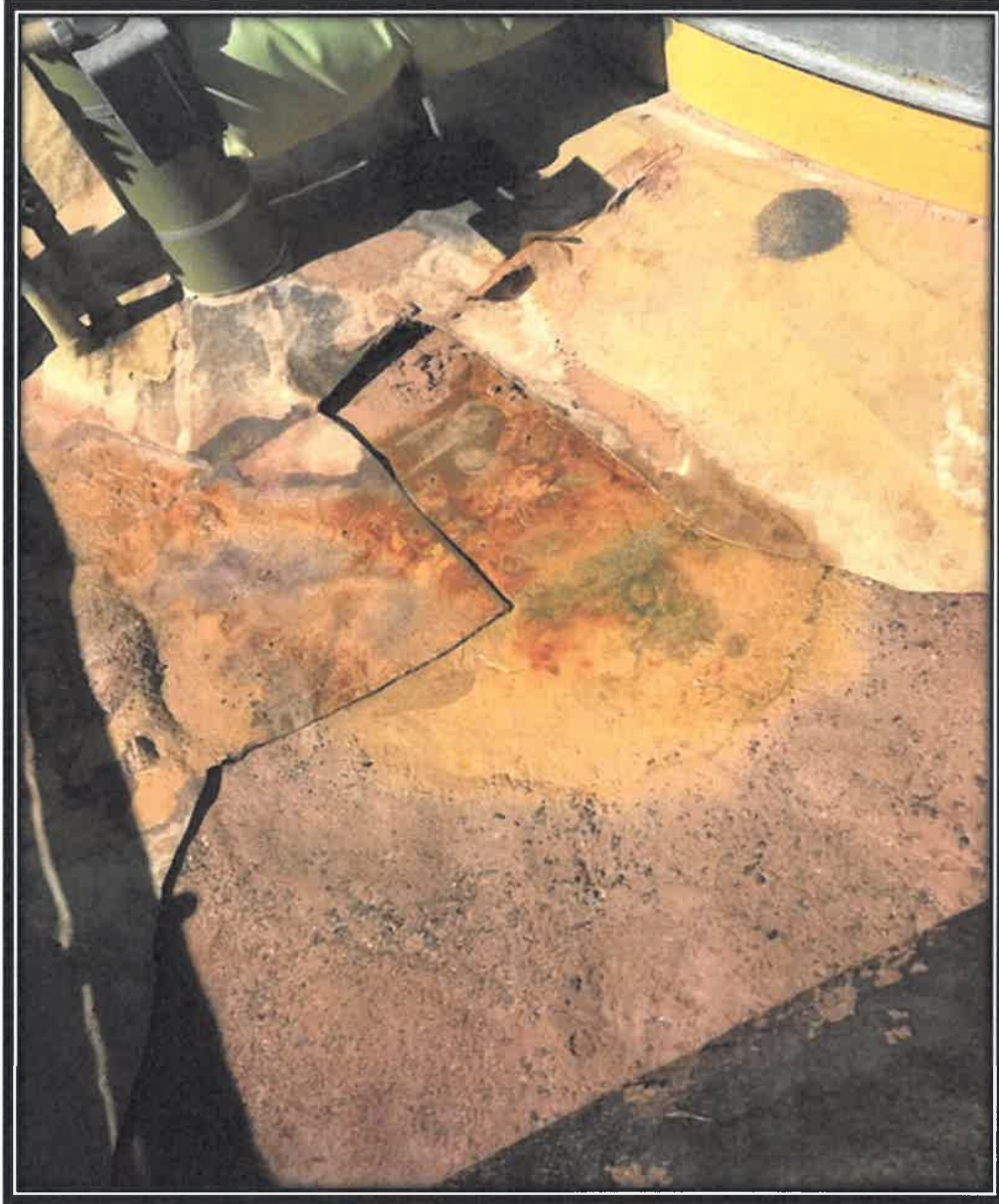
12/11/2019

Analytical report was received and results were below regulatory standards. No further action is required.



Enduring Resources, LLC
Spill Closure Report
NE Chaco COM 168H

Photo 1: Release





Enduring Resources, LLC
Spill Closure Report
NE Chaco COM 168H

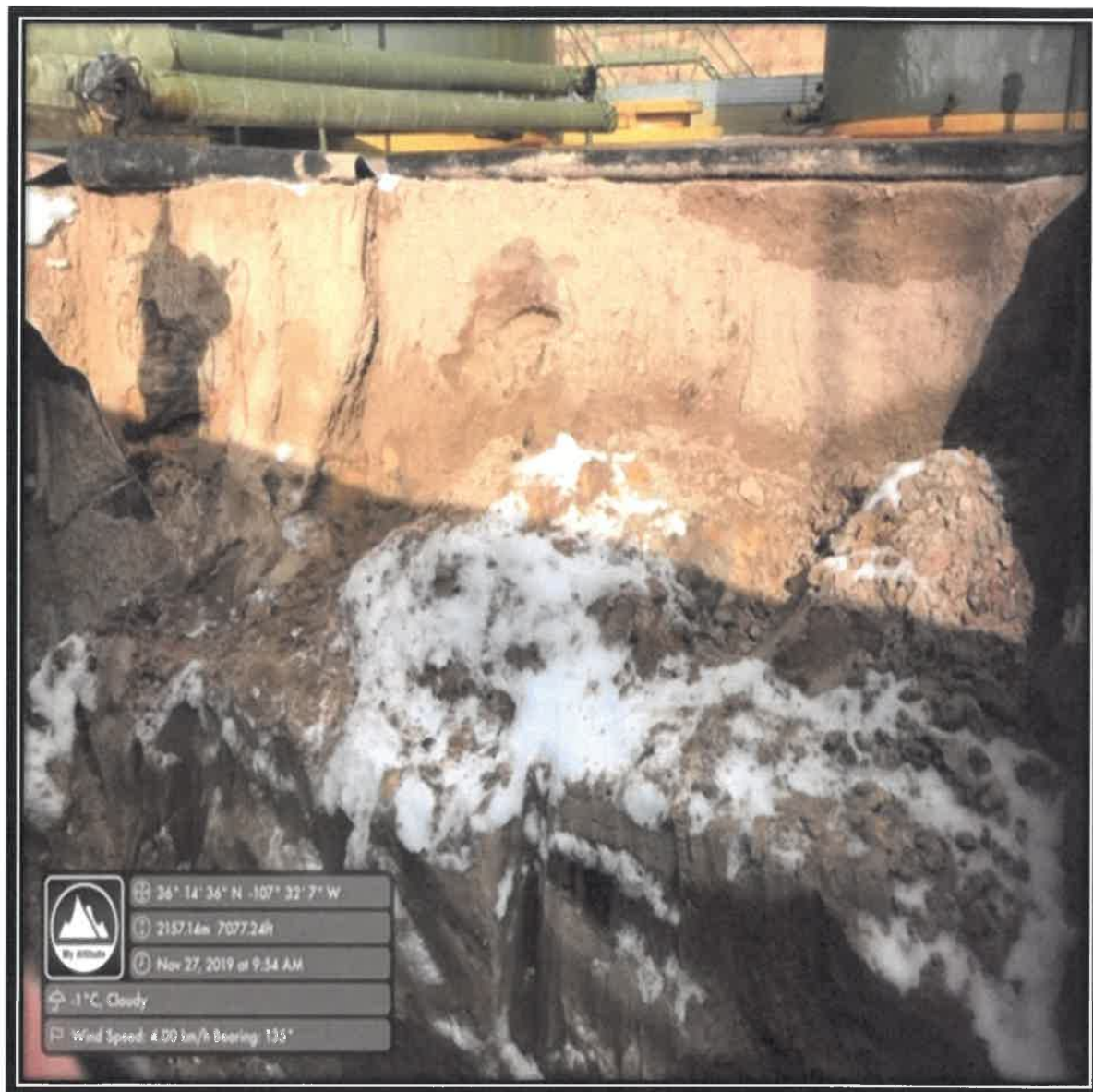
Photo 2: Excavation on sampling event 11/27/2019





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Photo 3: North Wall





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Photo 4: West Wall





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NE Chaco COM 168H

Photo 5: South Wall





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NE Chaco COM 168H

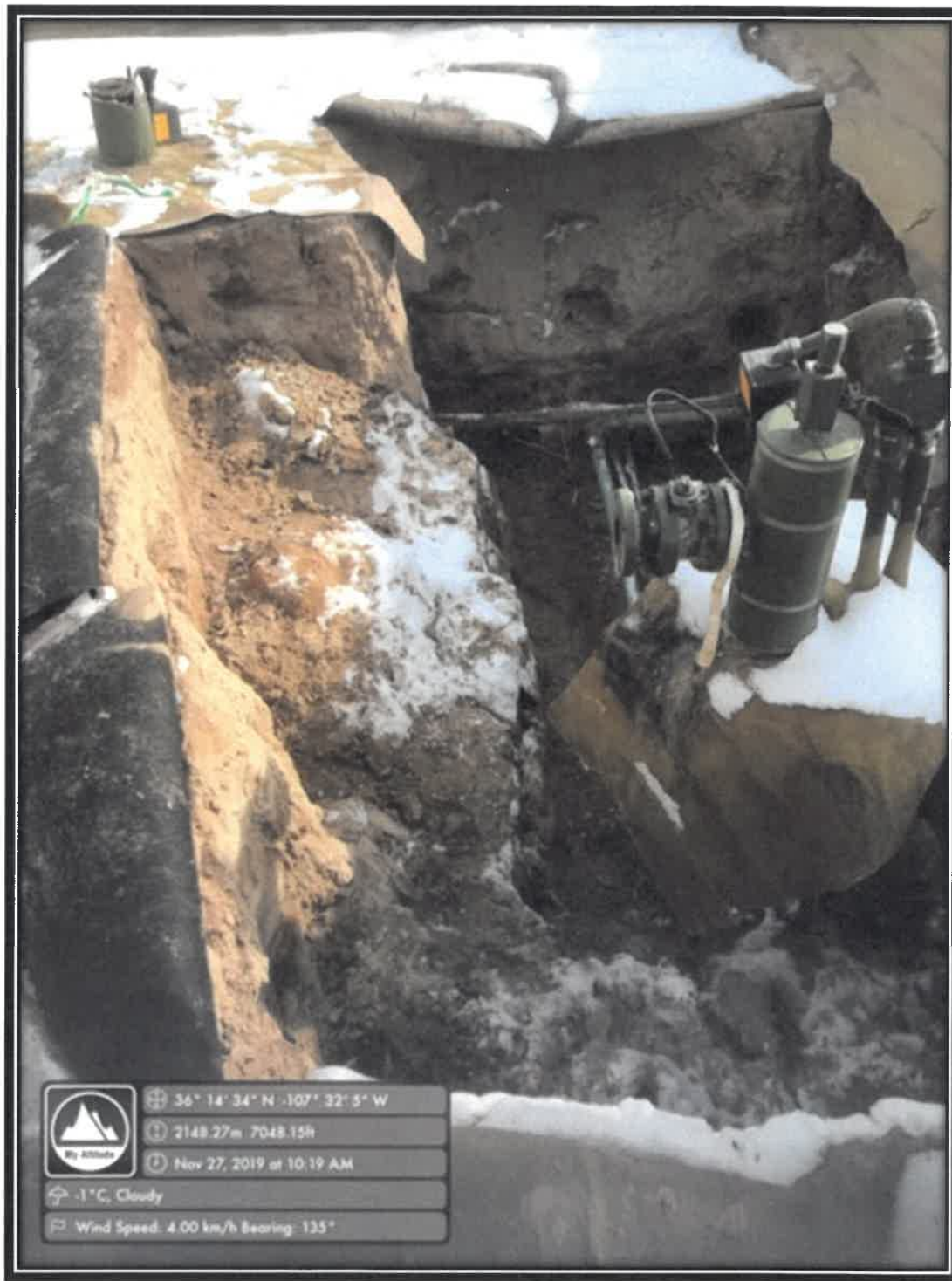
Photo 6: West Wall





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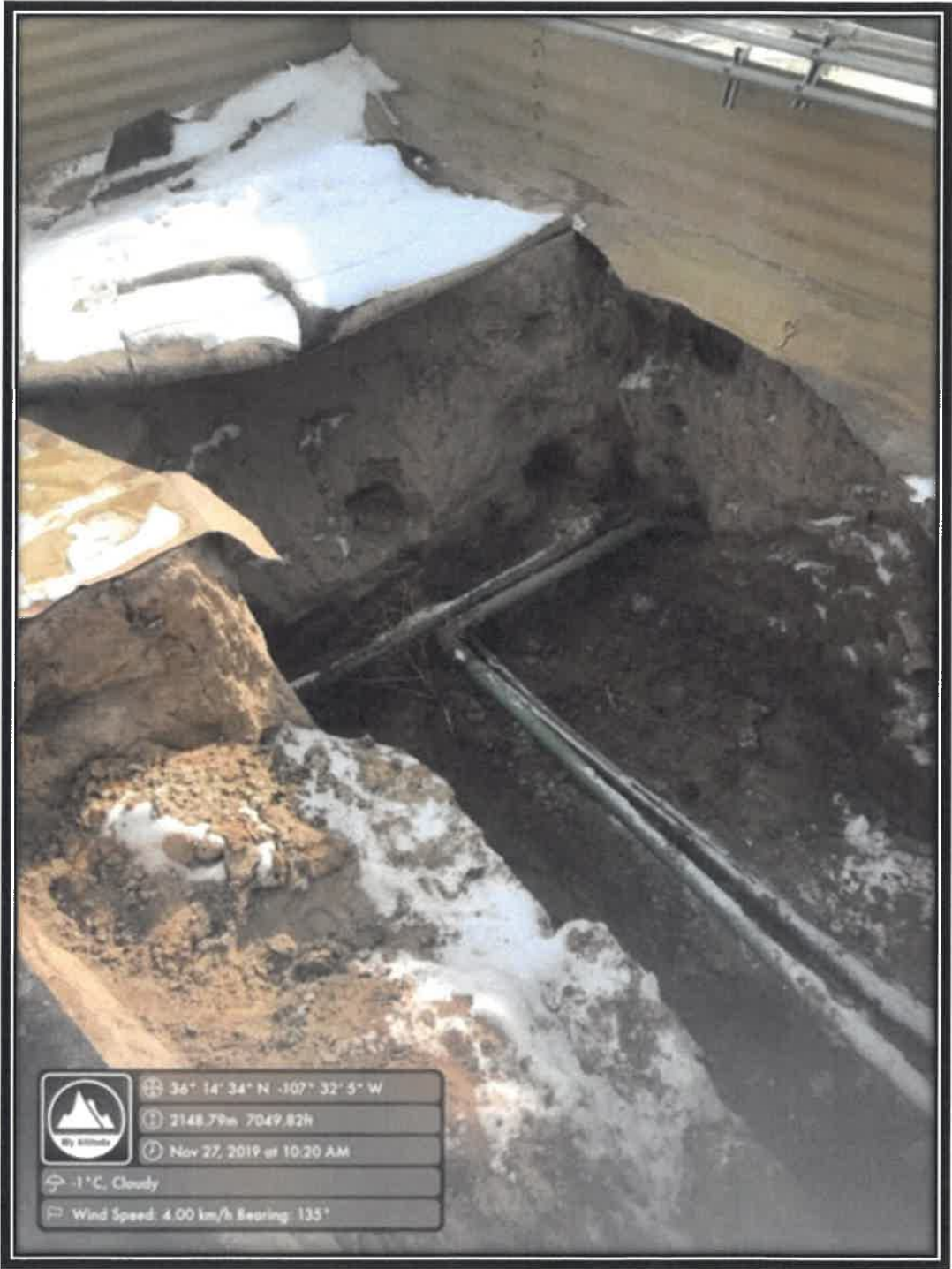
Photo 7: North Wall





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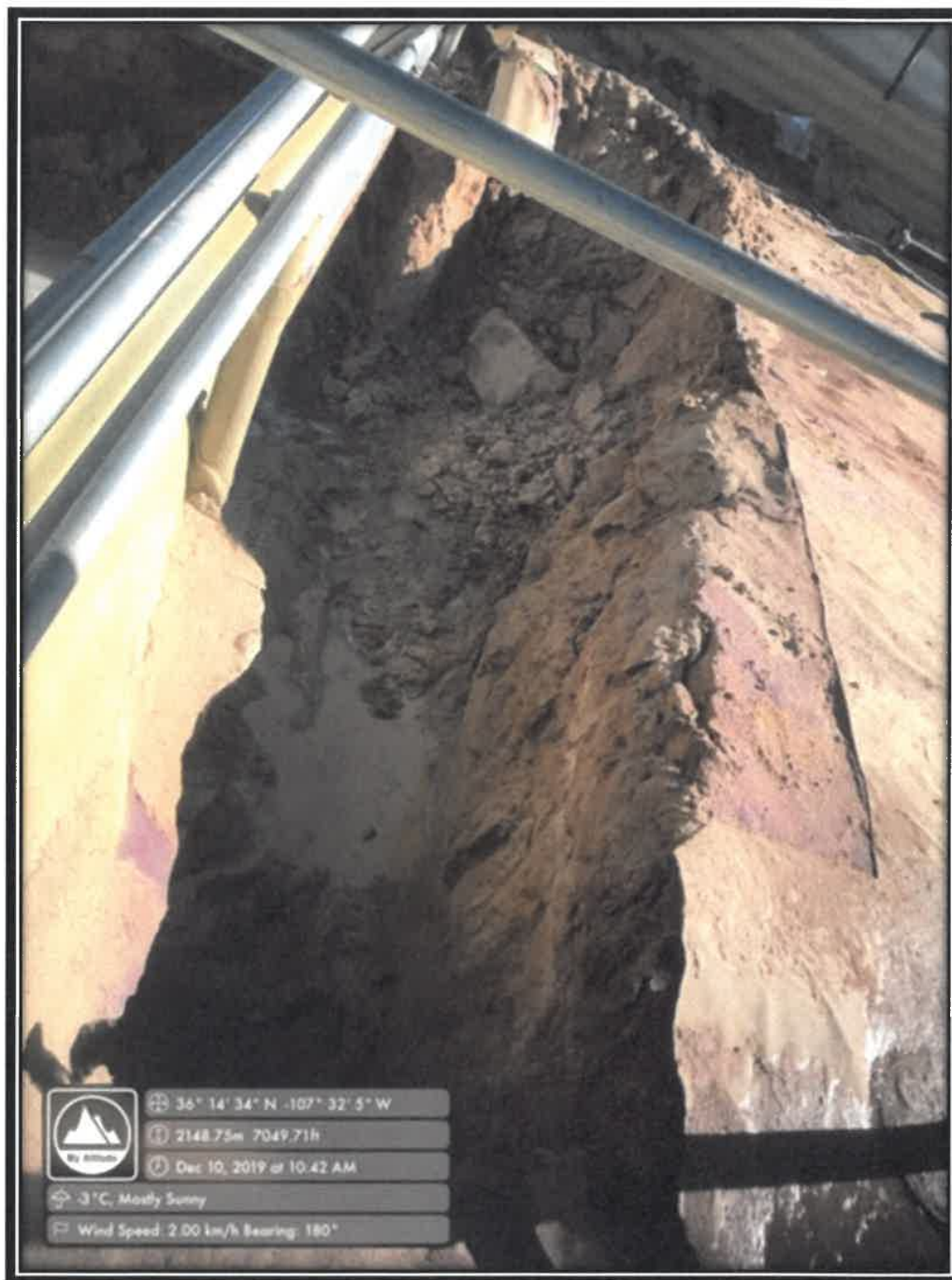
Photo 8: East Wall





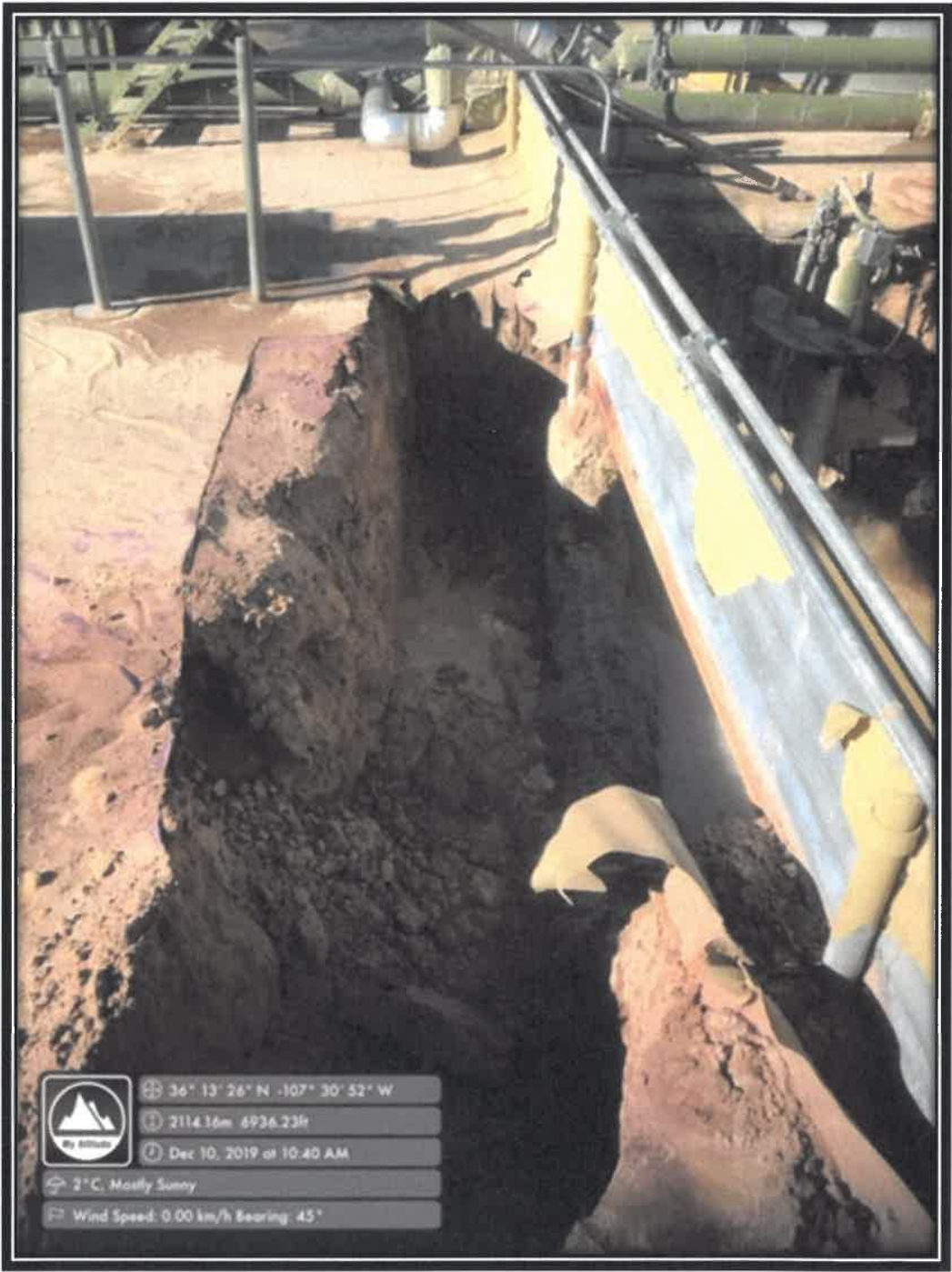
Enduring Resources, LLC
Spill Closure Report
NE Chaco COM 168H

Photo 9 & 10: South Wall after additional excavation





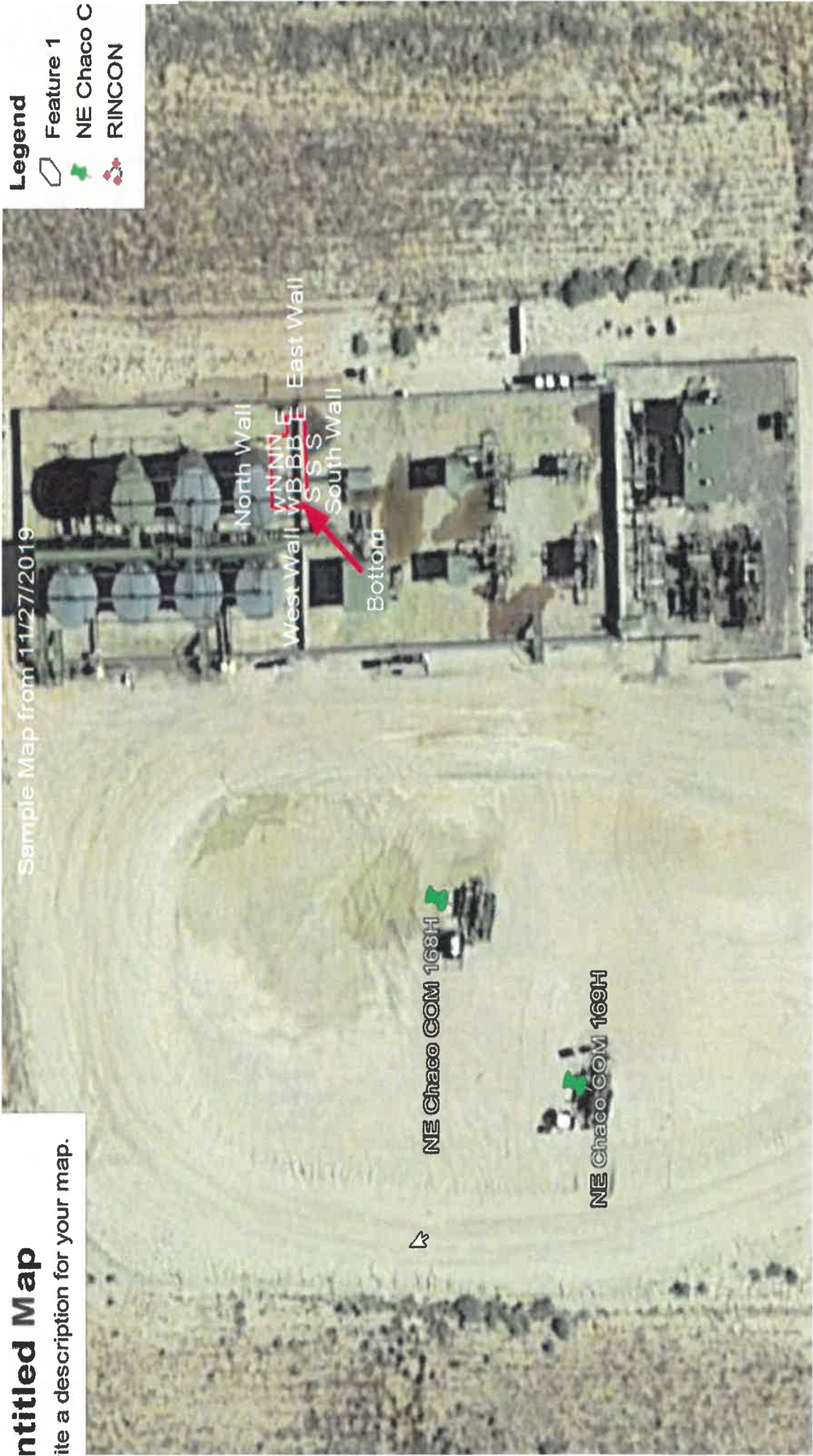
Enduring Resources, LLC
Spill Closure Report
NE Chaco COM 168H



NE Chaco COM 168H Sample Results Table

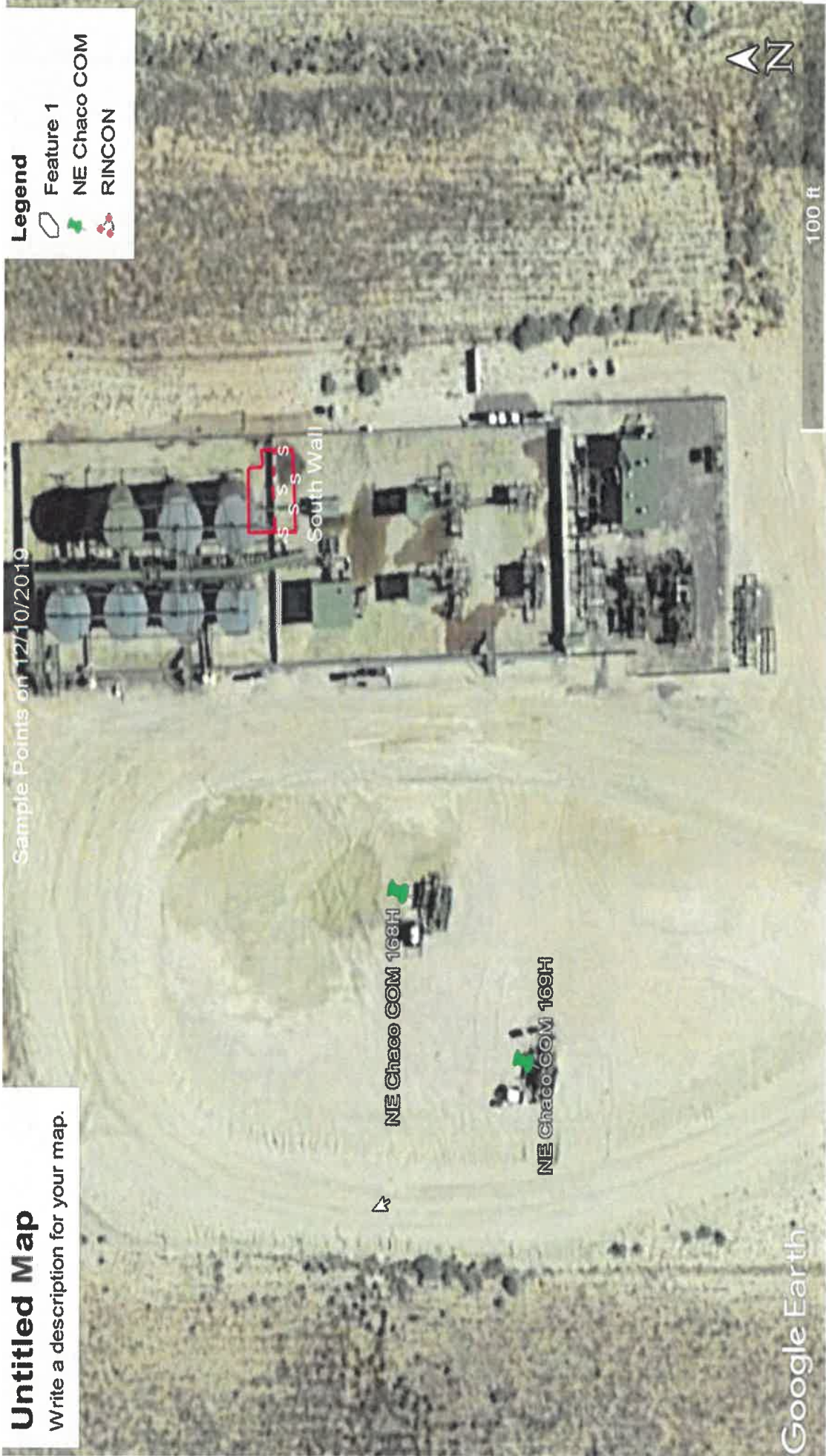
Sample Name	Date	DRO	GRO	DRO +		Total TPH	Benzene	Toluene	Ethylbenzene	Xylenes	Total		Square Footage
				GRO	ORO						BTEX	Chlorides	
STANDARD	NA	NA	NA	1,000	NA	2,500	10	NA	NA	NA	50	20,000	200 sq. ft
Bottom	11/27/2019	37	<20	37	<50	37	<0.250	<0.250	<0.250	<0.250	<0.1	90.7	104
East Wall	11/27/2019	<25	<20	<45	<50	<95	<0.250	<0.250	<0.250	<0.250	<0.1	159	55
South Wall	11/27/2019	<25	<20	<45	<50	<95	<0.250	<0.250	<0.250	<0.250	<0.1	1310	65
West Wall	11/27/2019	36.6	<20	36.60	<50	<95	<0.250	<0.250	<0.250	<0.250	<0.1	<20	50
North Wall	11/27/2019	77	<20	77	<50	77.4	<0.250	<0.250	<0.250	<0.250	<0.1	477	55
South Wall	12/10/2019	<25	<20	<45	<50	<95	<0.250	<0.250	<0.250	<0.250	<0.1	111	95

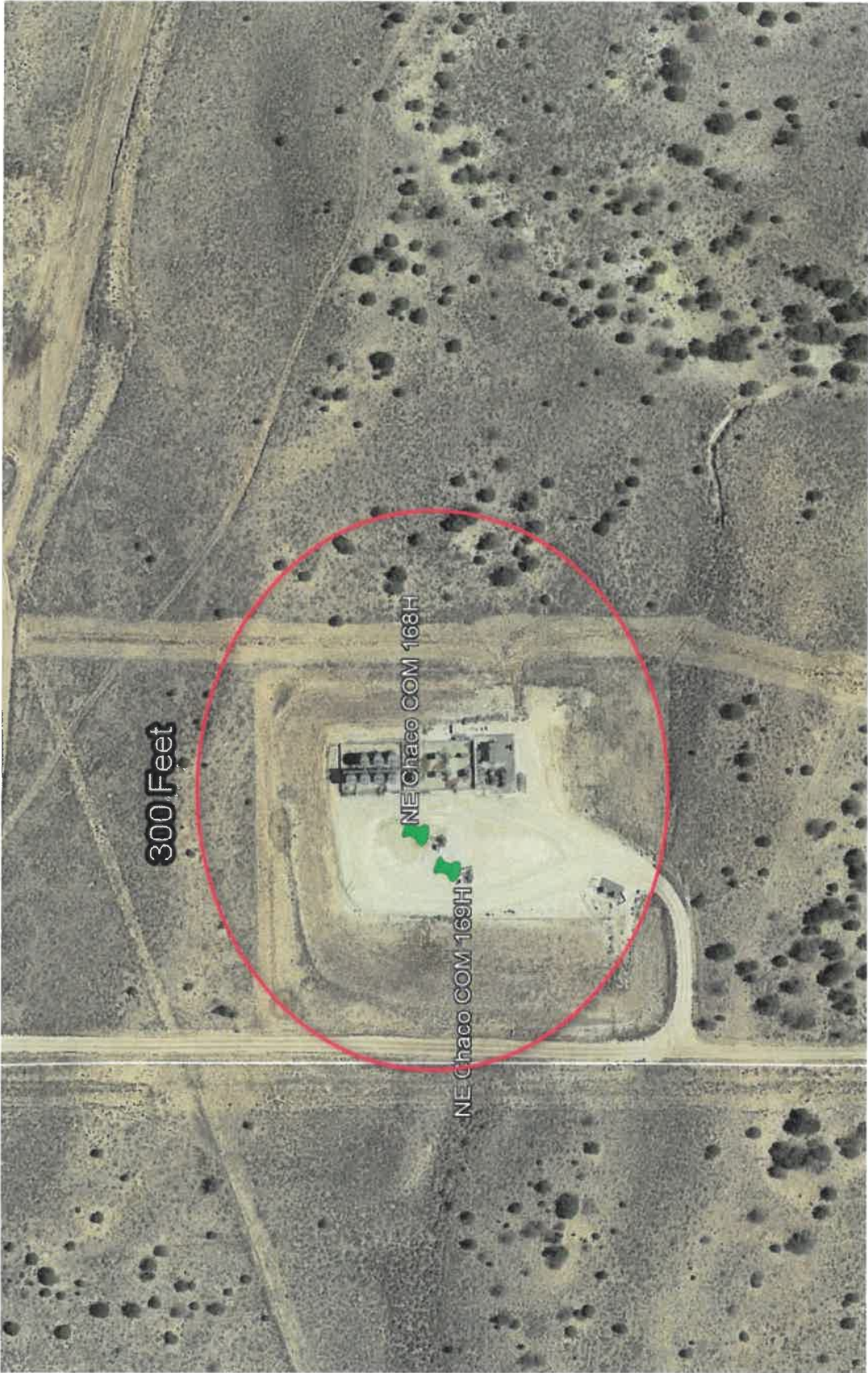
CLOSURE SAMPLES

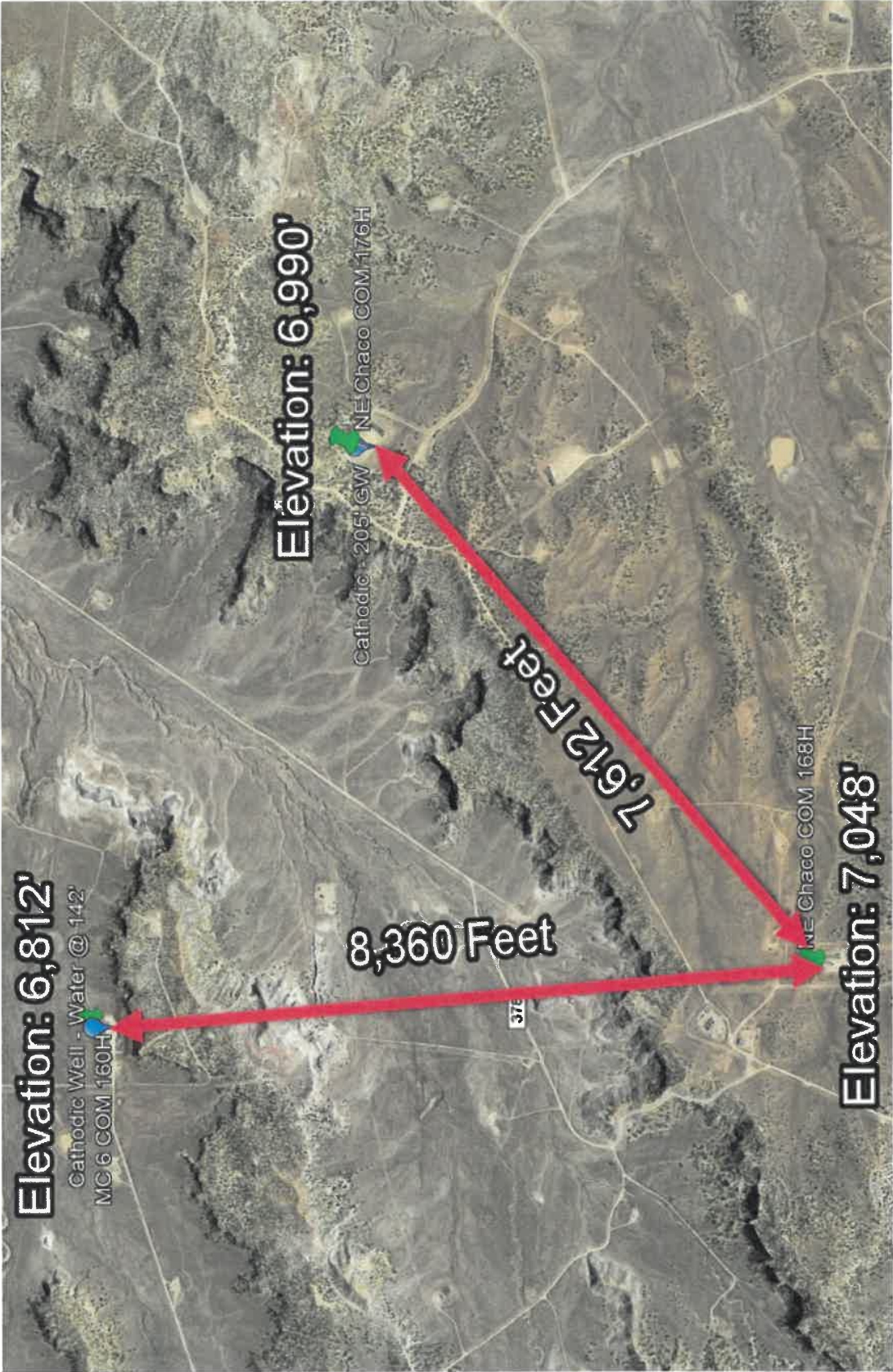


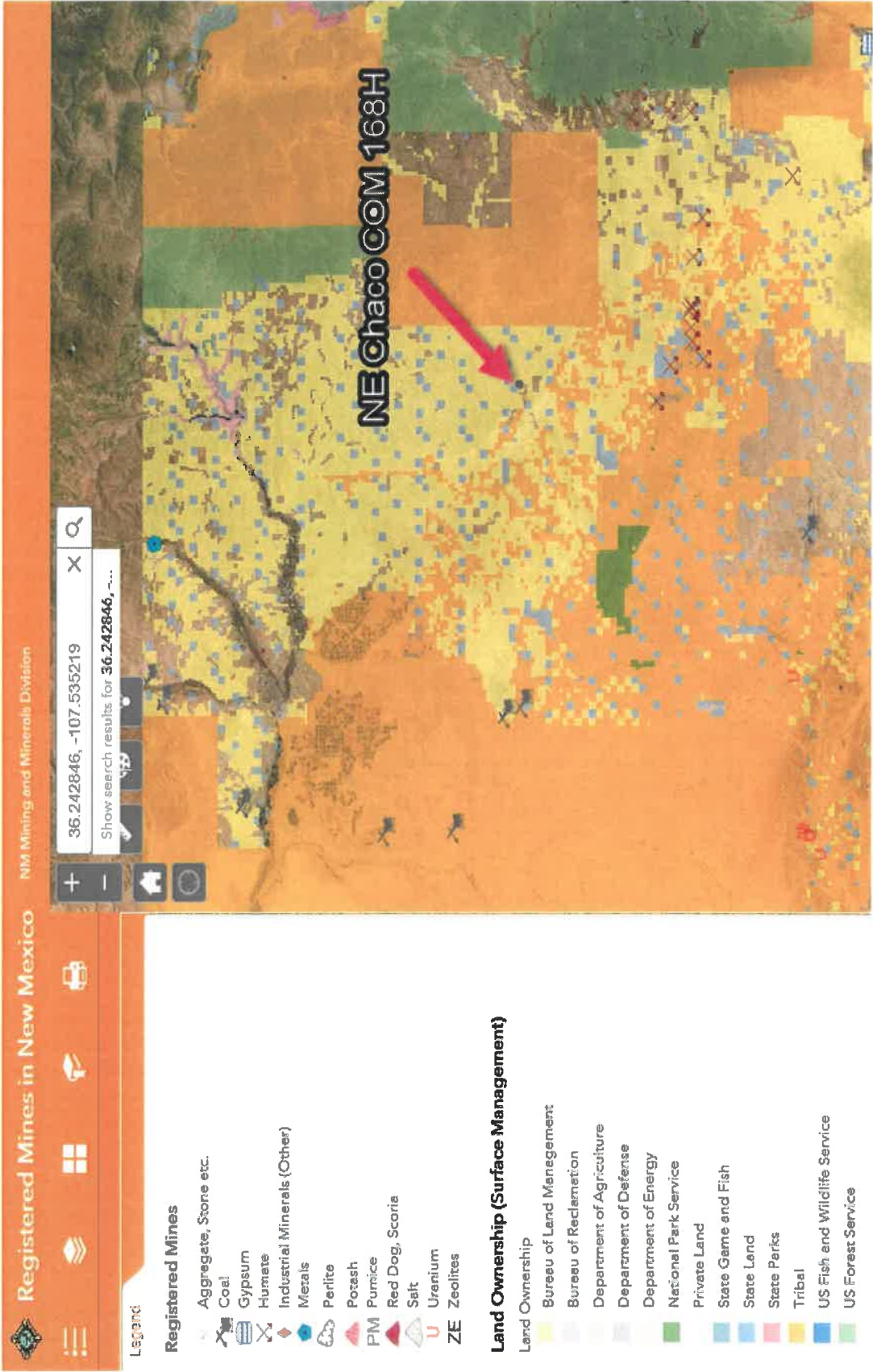
ntitled Map

ite a description for your map.













National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

Without Base Flood Elevation (BFE)
Zone A, V, A99
With BFE or Depth Zone AE, AO, AH, VE, AR
Regulatory Floodway

0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee, See Notes, Zone X
Area with Flood Risk due to Levee Zone D

OTHER AREAS OF FLOOD HAZARD

Area of Minimal Flood Hazard Zone X
Effective LOMRs
Area of Undetermined Flood Hazard Zone X

GENERAL STRUCTURES

Channel, Culvert, or Storm Sewer
Levee, Dike, or Floodwall

OTHER FEATURES

Cross Sections with 1% Annual Chance
Water Surface Elevation
Coastal Transect
Base Flood Elevation Line (BFE)
Limit of Study
Jurisdiction Boundary
Coastal Transect Baseline
Profile Baseline
Hydrographic Feature

MAP PANELS

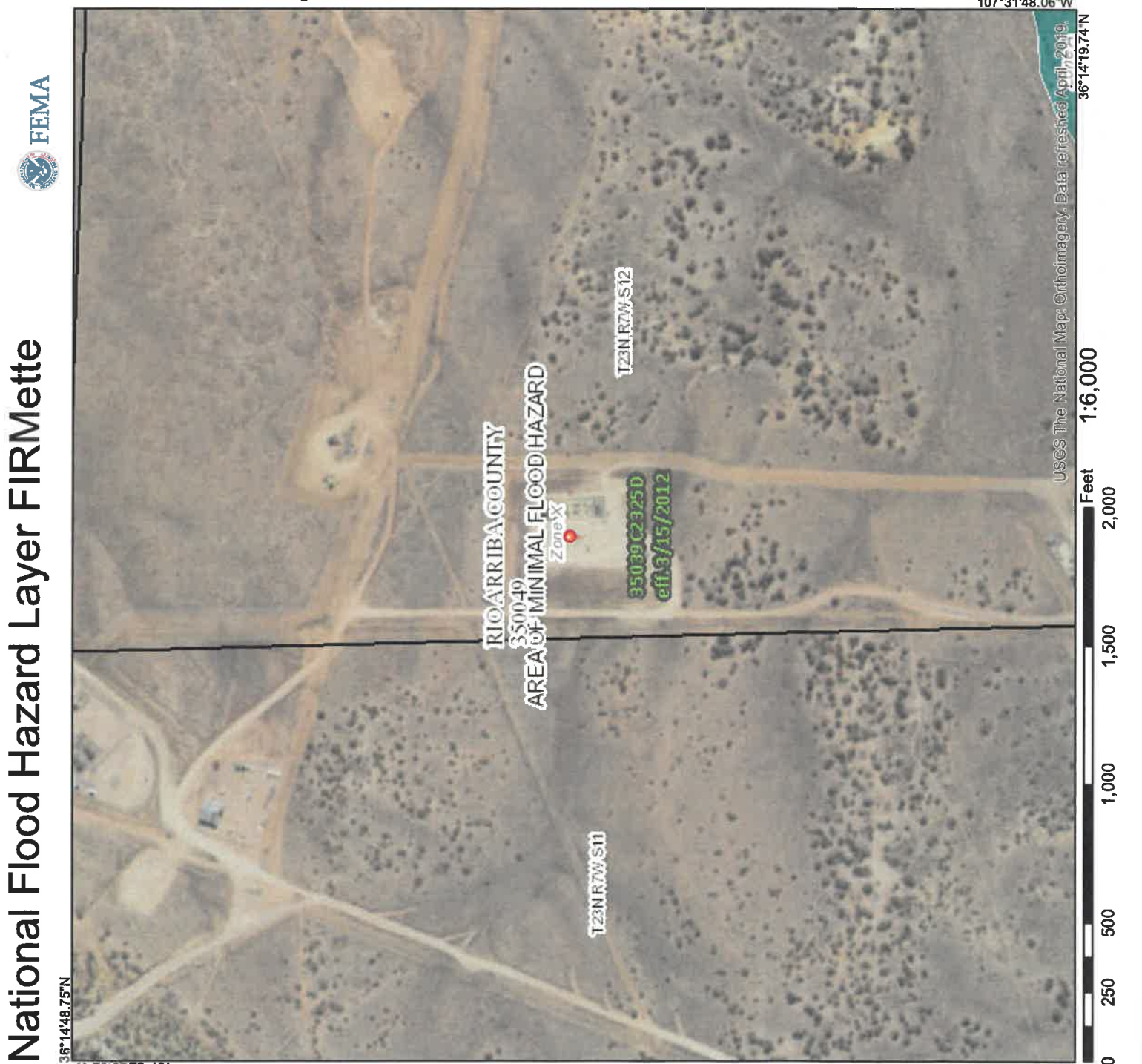
Digital Data Available
No Digital Data Available
Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/3/2019 at 5:54:38 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Ground Bed Drilling Log

Company: WPK Energy Well: Chaco / Chaco Date: 10-24 27
 Location: T-23-n B6-w Sub State: New Mexico Rig: Story #1
 Ground Bed Depth: 300' Water Depth: 205' Diameter: 6 3/4
 Fuel Usage: 130 gal

DEPTH**FORMATION****OTHER**

<u>0-20'</u>	Sand Stone, Shale, Sand w/ Shale w/ Sand	<u>PVC (2)</u>
<u>20-80</u>	<u>Sand Stone</u> , Shale, Sand w/ Shale w/ Sand	
<u>80-100</u>	Sand Stone, Shale, <u>Sand w/ Shale</u> w/ Sand	
<u>100-140</u>	<u>Sand Stone</u> , Shale, Sand w/ Shale w/ Sand	
<u>140-220</u>	Sand Stone, <u>Shale</u> , Sand w/ Shale w/ Sand	
<u>220-306</u>	Sand Stone, Shale, <u>Sand w/ Shale</u> w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	

OCD
 ~ 36.2575 N
 107.51595 W

[illegible]

Ground Bed Drilling Log

Company: WPX Energy Well: Chaco #159H #160H #170H Date: 9-11-2015
 Location: Sec 35 T4N R7W State: New Mexico Rig: String #1
 Ground Bed Depth: 360' Water Depth: 142' Diameter: 10"
 Fuel: 98 gal Latitude: _____ Longitude: _____

DEPTH**FORMATION****OTHER**

<u>0-40</u>	Sand Stone, Shale, Sand w/ Shale w/ Sand	<u>PVC</u>
<u>40-110</u>	<u>Sand Stone</u> Shale, Sand w/ Shale w/ Sand	
<u>110-200</u>	Sand Stone, Shale, <u>Sand w/ Shale w/ Sand</u>	
<u>200-260</u>	Sand Stone, <u>Shale</u> , Sand w/ Shale w/ Sand	
<u>260-360</u>	Sand Stone, Shale, <u>Sand w/ Shale w/ Sand</u>	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	
	Sand Stone, Shale, Sand w/ Shale w/ Sand	

GROUNDWATER DEPTH LOG

Company: WPX Energy			Location: <u>Chaco #159H #160H #170H</u>
Probe type: <u>Powerwell Sounding</u>			
Date	Time	Depth	Comments
9-11-15	7:30am	40'	Drilled 40'
	8:30am	40'	test: No water
	9:00	160'	Drilled 160' - set PVC
	10:00	160'	test: No water
	11:15	115'	Drilled 115'
	12:15	115'	test: no water
	4:30	360'	test water @ 142'
9-14-15	9:15	142'	test water @ 142'
	11:45		Finished anode bed.

Chad Snell

From: Chad Snell
Sent: Friday, December 06, 2019 10:02 AM
To: 'Smith, Cory, EMNRD'; 'aadeloye@blm.gov'
Cc: James McDaniel
Subject: RE: NE Chaco Com 168H Closure Sampling

Gentlemen,

Please accept this email as the required 48 hour notice for closure sampling at the NE Chaco Com 168H. One wall came back above standards and will need to be resampled after further excavation. Sample activities will occur Tuesday December 10th at 10:30am. Please let me know if you have any questions.

Thank you.

From: Chad Snell
Sent: Monday, November 25, 2019 8:51 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; 'aadeloye@blm.gov' <aadeloye@blm.gov>
Cc: James McDaniel <JMcDaniel@enduringresources.com>
Subject: NE Chaco Com 168H Closure Sampling

Gentlemen,

Please accept this email as the required 48 hour notice for closure sampling at the NE Chaco Com 168H (API: 30-039-31173, Sec: 12, TWN: 23N, RGE: 7W). Sampling activities will take place Wednesday November 27th 2019 at 9:30am. Feel free to contact me with any questions.

Thanks

Chad Snell
HSE Tech
Enduring Resources
(505) 444-0586.



Analytical Report

Report Summary

Client: Enduring Resources, LLC

Samples Received: 12/2/2019

Job Number: 17065-0017

Work Order: P912002

Project Name/Location: NE Chaco Com 168H

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a horizontal line.

Date: 12/4/19

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc. attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc.
Envirotech, Inc. holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc. holds the Texas TNI certification T104704557-19-2 for the data reported.



Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/04/19 09:02

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Bottom	P912002-01A	Soil	11/27/19	12/02/19	Glass Jar, 4 oz.
East Wall	P912002-02A	Soil	11/27/19	12/02/19	Glass Jar, 4 oz.
South Wall	P912002-03A	Soil	11/27/19	12/02/19	Glass Jar, 4 oz.
West Wall	P912002-04A	Soil	11/27/19	12/02/19	Glass Jar, 4 oz.
North Wall	P912002-05A	Soil	11/27/19	12/02/19	Glass Jar, 4 oz.

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Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/04/19 09:02

Bottom
P912002-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Volatile Organics by EPA 8021</u>									
Benzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	1949009	12/02/19	12/03/19	EPA 8021B	
<u>Nonhalogenated Organics by 8015 - DRO/ORO</u>									
Diesel Range Organics (C10-C28)	37.4	25.0	mg/kg	1	1949008	12/02/19	12/02/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1949008	12/02/19	12/02/19	EPA 8015D	
Surrogate: n-Nonane		94.4 %		50-200	1949008	12/02/19	12/02/19	EPA 8015D	
<u>Nonhalogenated Organics by 8015 - GRO</u>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.5 %		50-150	1949009	12/02/19	12/03/19	EPA 8015D	
<u>Anions by 300.0/9056A</u>									
Chloride	90.7	20.0	mg/kg	1	1949010	12/02/19	12/02/19	EPA 300.0/9056A	

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Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/04/19 09:02

East Wall
P912002-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		101 %		50-150	1949009	12/02/19	12/03/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1949008	12/02/19	12/03/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1949008	12/02/19	12/03/19	EPA 8015D	
Surrogate: n-Nonane		95.1 %		50-200	1949008	12/02/19	12/03/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.9 %		50-150	1949009	12/02/19	12/03/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	159	20.0	mg/kg	1	1949010	12/02/19	12/02/19	EPA 300.0/9056A	

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Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/04/19 09:02

**South Wall
P912002-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		104 %		50-150	1949009	12/02/19	12/03/19	EPA 8021B	
Nonhalogenated Organics by 8015 - DRO/ORO									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1949008	12/02/19	12/03/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1949008	12/02/19	12/03/19	EPA 8015D	
Surrogate: n-Nonane		95.0 %		50-200	1949008	12/02/19	12/03/19	EPA 8015D	
Nonhalogenated Organics by 8015 - GRO									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		87.6 %		50-150	1949009	12/02/19	12/03/19	EPA 8015D	
Anions by 300.0/9056A									
Chloride	1310	40.0	mg/kg	2	1949010	12/02/19	12/02/19	EPA 300.0/9056A	

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Enduring Resources, LLC	Project Name:	NE Chaco Com 168H	Reported: 12/04/19 09:02
511 16th Street, Suite 700	Project Number:	17065-0017	
Denver CO, 80202	Project Manager:	Chad Snell	

West Wall
P912002-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID 102 % 50-150 1949009 12/02/19 12/03/19 EPA 8021B

Nonhalogenated Organics by 8015 - DRO/ORO

Diesel Range Organics (C10-C28)	36.6	25.0	mg/kg	1	1949008	12/02/19	12/03/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1949008	12/02/19	12/03/19	EPA 8015D	

Surrogate: n-Nonane 98.9 % 50-200 1949008 12/02/19 12/03/19 EPA 8015D

Nonhalogenated Organics by 8015 - GRO

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8015D	
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Surrogate: 1-Chloro-4-fluorobenzene-FID 86.8 % 50-150 1949009 12/02/19 12/03/19 EPA 8015D

Anions by 300.0/9056A

Chloride	ND	20.0	mg/kg	1	1949010	12/02/19	12/02/19	EPA 300.0/9056A	
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Enduring Resources, LLC	Project Name:	NE Chaco Com 168H	Reported: 12/04/19 09:02
511 16th Street, Suite 700	Project Number:	17065-0017	
Denver CO, 80202	Project Manager:	Chad Snell	

**North Wall
P912002-05 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Volatile Organics by EPA 8021</u>									
Benzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %		50-150	1949009	12/02/19	12/03/19	EPA 8021B	
<u>Nonhalogenated Organics by 8015 - DRO/ORO</u>									
Diesel Range Organics (C10-C28)	77.4	25.0	mg/kg	1	1949008	12/02/19	12/03/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1949008	12/02/19	12/03/19	EPA 8015D	
Surrogate: n-Nonane		94.3 %		50-200	1949008	12/02/19	12/03/19	EPA 8015D	
<u>Nonhalogenated Organics by 8015 - GRO</u>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1949009	12/02/19	12/03/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		86.4 %		50-150	1949009	12/02/19	12/03/19	EPA 8015D	
<u>Anions by 300.0/9056A</u>									
Chloride	477	20.0	mg/kg	1	1949010	12/02/19	12/02/19	EPA 300.0/9056A	

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Enduring Resources, LLC	Project Name:	NE Chaco Com 168H	Reported: 12/04/19 09:02
511 16th Street, Suite 700	Project Number:	17065-0017	
Denver CO, 80202	Project Manager:	Chad Snell	

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1949009 - Purge and Trap EPA 5030A

Blank (1949009-BLK1)

Prepared: 12/02/19 1 Analyzed: 12/03/19 0

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							

Surrogate: 4-Bromochlorobenzene-PID 8.21 " 8.00 103 50-150

LCS (1949009-BS1)

Prepared: 12/02/19 1 Analyzed: 12/03/19 0

Benzene	5.18	0.0250	mg/kg	5.00		104	70-130			
Toluene	5.28	0.0250	"	5.00		106	70-130			
Ethylbenzene	5.20	0.0250	"	5.00		104	70-130			
p,m-Xylene	10.3	0.0500	"	10.0		103	70-130			
o-Xylene	5.17	0.0250	"	5.00		103	70-130			
Total Xylenes	15.5	0.0250	"	15.0		103	70-130			

Surrogate: 4-Bromochlorobenzene-PID 8.40 " 8.00 105 50-150

Matrix Spike (1949009-MS1)

Source: P912001-01

Prepared: 12/02/19 1 Analyzed: 12/03/19 0

Benzene	5.20	0.0250	mg/kg	5.00	ND	104	54.3-133			
Toluene	5.31	0.0250	"	5.00	ND	106	61.4-130			
Ethylbenzene	5.23	0.0250	"	5.00	ND	105	61.4-133			
p,m-Xylene	10.4	0.0500	"	10.0	ND	104	63.3-131			
o-Xylene	5.21	0.0250	"	5.00	ND	104	63.3-131			
Total Xylenes	15.6	0.0250	"	15.0	ND	104	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 8.31 " 8.00 104 50-150

Matrix Spike Dup (1949009-MSD1)

Source: P912001-01

Prepared: 12/02/19 1 Analyzed: 12/03/19 0

Benzene	5.20	0.0250	mg/kg	5.00	ND	104	54.3-133	0.0875	20	
Toluene	5.29	0.0250	"	5.00	ND	106	61.4-130	0.296	20	
Ethylbenzene	5.21	0.0250	"	5.00	ND	104	61.4-133	0.339	20	
p,m-Xylene	10.3	0.0500	"	10.0	ND	103	63.3-131	0.639	20	
o-Xylene	5.18	0.0250	"	5.00	ND	104	63.3-131	0.428	20	
Total Xylenes	15.5	0.0250	"	15.0	ND	103	63.3-131	0.569	20	

Surrogate: 4-Bromochlorobenzene-PID 8.26 " 8.00 103 50-150

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Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/04/19 09:02

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1949008 - DRO Extraction EPA 3570										
Blank (1949008-BLK1)				Prepared: 12/02/19 0 Analyzed: 12/02/19 1						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	49.8		"	50.0		99.7	50-200			
LCS (1949008-BS1)				Prepared: 12/02/19 0 Analyzed: 12/02/19 1						
Diesel Range Organics (C10-C28)	484	25.0	mg/kg	500		96.8	38-132			
Surrogate: n-Nonane	49.6		"	50.0		99.1	50-200			
Matrix Spike (1949008-MS1)				Source: P911128-01		Prepared: 12/02/19 0 Analyzed: 12/02/19 2				
Diesel Range Organics (C10-C28)	502	25.0	mg/kg	500	ND	100	38-132			
Surrogate: n-Nonane	50.6		"	50.0		101	50-200			
Matrix Spike Dup (1949008-MSD1)				Source: P911128-01		Prepared: 12/02/19 0 Analyzed: 12/02/19 2				
Diesel Range Organics (C10-C28)	487	25.0	mg/kg	500	ND	97.3	38-132	3.09	20	
Surrogate: n-Nonane	49.6		"	50.0		99.2	50-200			

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5796 Highway 64, Farmington, NM 87401

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24 Hour Emergency Response Phone (800) 362-1879

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Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/04/19 09:02

Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1949009 - Purge and Trap EPA 5030A										
Blank (1949009-BLK1)				Prepared: 12/02/19 1 Analyzed: 12/03/19 0						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.87		"	8.00		85.8	50-150			
LCS (1949009-BS2)				Prepared: 12/02/19 1 Analyzed: 12/03/19 0						
Gasoline Range Organics (C6-C10)	48.0	20.0	mg/kg	50.0		95.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.20		"	8.00		90.0	50-150			
Matrix Spike (1949009-MS2)				Source: P912001-01		Prepared: 12/02/19 1 Analyzed: 12/03/19 0				
Gasoline Range Organics (C6-C10)	48.2	20.0	mg/kg	50.0	ND	96.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.23		"	8.00		90.3	50-150			
Matrix Spike Dup (1949009-MSD2)				Source: P912001-01		Prepared: 12/02/19 1 Analyzed: 12/03/19 1				
Gasoline Range Organics (C6-C10)	48.2	20.0	mg/kg	50.0	ND	96.4	70-130	0.105	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.07		"	8.00		88.4	50-150			

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Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/04/19 09:02

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1949010 - Anion Extraction EPA 300.0/9056A										
Blank (1949010-BLK1)				Prepared & Analyzed: 12/02/19 1						
Chloride	ND	20.0	mg/kg							
LCS (1949010-BS1)				Prepared & Analyzed: 12/02/19 1						
Chloride	253	20.0	mg/kg	250		101	90-110			
Matrix Spike (1949010-MS1)				Source: P912001-01		Prepared & Analyzed: 12/02/19 1				
Chloride	258	20.0	mg/kg	250	ND	103	80-120			
Matrix Spike Dup (1949010-MSD1)				Source: P912001-01		Prepared & Analyzed: 12/02/19 1				
Chloride	256	20.0	mg/kg	250	ND	102	80-120	1.16	20	

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/04/19 09:02

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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Chain of Custody

Page 1 of 1

Page 13 of 13

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Analytical Report

Report Summary

Client: Enduring Resources, LLC

Samples Received: 12/10/2019

Job Number: 17065-0017

Work Order: P912020

Project Name/Location: NE Chaco Com 168H

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', is written over a horizontal line.

Date: 12/12/19

Walter Hinchman, Laboratory Director



Envirotech Inc. certifies the test results meet all requirements of TNI unless footnoted otherwise.
Statement of Data Authenticity: Envirotech, Inc. attests the data reported has not been altered in any way.
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Envirotech, Inc. holds the Utah TNI certification NM009792018-1 for the data reported.
Envirotech, Inc. holds the Texas TNI certification T104704557-19-2 for the data reported.



Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/12/19 11:33

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
South Wall	P912020-01A	Soil	12/10/19	12/10/19	Glass Jar, 4 oz.

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5796 Highway 64, Farmington, NM 87401

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Enduring Resources, LLC 511 16th Street, Suite 700 Denver CO, 80202	Project Name: NE Chaco Com 168H Project Number: 17065-0017 Project Manager: Chad Snell	Reported: 12/12/19 11:33
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**South Wall
P912020-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Volatile Organics by EPA 8021</u>									
Benzene	ND	0.0250	mg/kg	1	1950014	12/10/19	12/11/19	EPA 8021B	
Toluene	ND	0.0250	mg/kg	1	1950014	12/10/19	12/11/19	EPA 8021B	
Ethylbenzene	ND	0.0250	mg/kg	1	1950014	12/10/19	12/11/19	EPA 8021B	
p,m-Xylene	ND	0.0500	mg/kg	1	1950014	12/10/19	12/11/19	EPA 8021B	
o-Xylene	ND	0.0250	mg/kg	1	1950014	12/10/19	12/11/19	EPA 8021B	
Total Xylenes	ND	0.0250	mg/kg	1	1950014	12/10/19	12/11/19	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		99.8 %		50-150	1950014	12/10/19	12/11/19	EPA 8021B	
<u>Nonhalogenated Organics by 8015 - DRO/ORO</u>									
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg	1	1950011	12/10/19	12/10/19	EPA 8015D	
Oil Range Organics (C28-C40)	ND	50.0	mg/kg	1	1950011	12/10/19	12/10/19	EPA 8015D	
Surrogate: n-Nonane		104 %		50-200	1950011	12/10/19	12/10/19	EPA 8015D	
<u>Nonhalogenated Organics by 8015 - GRO</u>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1950014	12/10/19	12/11/19	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		81.3 %		50-150	1950014	12/10/19	12/11/19	EPA 8015D	
<u>Anions by 300.0/9056A</u>									
Chloride	111	20.0	mg/kg	1	1950009	12/10/19	12/10/19	EPA 300.0/9056A	

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Enduring Resources, LLC	Project Name:	NE Chaco Com 168H	Reported: 12/12/19 11:33
511 16th Street, Suite 700	Project Number:	17065-0017	
Denver CO, 80202	Project Manager:	Chad Snell	

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1950014 - Purge and Trap EPA 5030A

Blank (1950014-BLK1)

Prepared: 12/10/19 | Analyzed: 12/11/19 0

Benzene	ND	0.0250	mg/kg							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
p,m-Xylene	ND	0.0500	"							
o-Xylene	ND	0.0250	"							
Total Xylenes	ND	0.0250	"							

Surrogate: 4-Bromochlorobenzene-PID 7.95 " 8.00 99.3 50-150

LCS (1950014-BS1)

Prepared: 12/10/19 | Analyzed: 12/11/19 0

Benzene	5.05	0.0250	mg/kg	5.00		101	70-130			
Toluene	5.18	0.0250	"	5.00		104	70-130			
Ethylbenzene	5.08	0.0250	"	5.00		102	70-130			
p,m-Xylene	10.1	0.0500	"	10.0		101	70-130			
o-Xylene	5.05	0.0250	"	5.00		101	70-130			
Total Xylenes	15.1	0.0250	"	15.0		101	70-130			

Surrogate: 4-Bromochlorobenzene-PID 8.10 " 8.00 101 50-150

Matrix Spike (1950014-MS1)

Source: P912020-01

Prepared: 12/10/19 | Analyzed: 12/11/19 0

Benzene	5.21	0.0250	mg/kg	5.00	ND	104	54.3-133			
Toluene	5.32	0.0250	"	5.00	ND	106	61.4-130			
Ethylbenzene	5.24	0.0250	"	5.00	ND	105	61.4-133			
p,m-Xylene	10.4	0.0500	"	10.0	ND	104	63.3-131			
o-Xylene	5.21	0.0250	"	5.00	ND	104	63.3-131			
Total Xylenes	15.6	0.0250	"	15.0	ND	104	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 8.10 " 8.00 101 50-150

Matrix Spike Dup (1950014-MSD1)

Source: P912020-01

Prepared: 12/10/19 | Analyzed: 12/11/19 0

Benzene	5.19	0.0250	mg/kg	5.00	ND	104	54.3-133	0.346	20	
Toluene	5.27	0.0250	"	5.00	ND	105	61.4-130	0.954	20	
Ethylbenzene	5.19	0.0250	"	5.00	ND	104	61.4-133	0.997	20	
p,m-Xylene	10.3	0.0500	"	10.0	ND	103	63.3-131	0.843	20	
o-Xylene	5.18	0.0250	"	5.00	ND	104	63.3-131	0.710	20	
Total Xylenes	15.5	0.0250	"	15.0	ND	103	63.3-131	0.799	20	

Surrogate: 4-Bromochlorobenzene-PID 8.02 " 8.00 100 50-150

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511 16th Street, Suite 700	Project Number:	17065-0017	
Denver CO, 80202	Project Manager:	Chad Snell	

Nonhalogenated Organics by 8015 - DRO/ORO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1950011 - DRO Extraction EPA 3570

Blank (1950011-BLK1)

Prepared: 12/10/19 1 Analyzed: 12/11/19 0

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40)	ND	50.0	"							
Surrogate: n-Nonane	48.2		"	50.0		96.4	50-200			

LCS (1950011-BS1)

Prepared & Analyzed: 12/10/19 1

Diesel Range Organics (C10-C28)	506	25.0	mg/kg	500		101	38-132			
Surrogate: n-Nonane	49.6		"	50.0		99.2	50-200			

Matrix Spike (1950011-MS1)

Source: P912019-01

Prepared & Analyzed: 12/10/19 1

Diesel Range Organics (C10-C28)	484	25.0	mg/kg	500	ND	96.9	38-132			
Surrogate: n-Nonane	47.0		"	50.0		93.9	50-200			

Matrix Spike Dup (1950011-MSD1)

Source: P912019-01

Prepared & Analyzed: 12/10/19 1

Diesel Range Organics (C10-C28)	487	25.0	mg/kg	500	ND	97.4	38-132	0.591	20	
Surrogate: n-Nonane	47.2		"	50.0		94.4	50-200			

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Enduring Resources, LLC 511 16th Street, Suite 700 Denver CO, 80202	Project Name: NE Chaco Com 168H Project Number: 17065-0017 Project Manager: Chad Snell	Reported: 12/12/19 11:33
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Nonhalogenated Organics by 8015 - GRO - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1950014 - Purge and Trap EPA 5030A

Blank (1950014-BLK1)				Prepared: 12/10/19 Analyzed: 12/11/19 0						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.54		"	8.00		81.8	50-150			
LCS (1950014-BS2)				Prepared: 12/10/19 Analyzed: 12/11/19 0						
Gasoline Range Organics (C6-C10)	45.3	20.0	mg/kg	50.0		90.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.46		"	8.00		80.7	50-150			
Matrix Spike (1950014-MS2)				Source: P912020-01 Prepared: 12/10/19 Analyzed: 12/11/19 0						
Gasoline Range Organics (C6-C10)	45.9	20.0	mg/kg	50.0	ND	91.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.62		"	8.00		82.8	50-150			
Matrix Spike Dup (1950014-MSD2)				Source: P912020-01 Prepared: 12/10/19 Analyzed: 12/11/19 0						
Gasoline Range Organics (C6-C10)	45.0	20.0	mg/kg	50.0	ND	90.1	70-130	1.94	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	6.64		"	8.00		83.0	50-150			

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Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/12/19 11:33

Anions by 300.0/9056A - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1950009 - Anion Extraction EPA 300.0/9056A										
Blank (1950009-BLK1)				Prepared: 12/10/19 0 Analyzed: 12/10/19 1						
Chloride	ND	20.0	mg/kg							
LCS (1950009-BS1)				Prepared: 12/10/19 0 Analyzed: 12/10/19 1						
Chloride	248	20.0	mg/kg	250		99.2	90-110			
Matrix Spike (1950009-MS1)				Source: P912019-01 Prepared: 12/10/19 0 Analyzed: 12/10/19 1						
Chloride	326	20.0	mg/kg	250	62.2	106	80-120			
Matrix Spike Dup (1950009-MSD1)				Source: P912019-01 Prepared: 12/10/19 0 Analyzed: 12/10/19 1						
Chloride	315	20.0	mg/kg	250	62.2	101	80-120	3.34	20	

QC Summary Report

Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Enduring Resources, LLC
511 16th Street, Suite 700
Denver CO, 80202

Project Name: NE Chaco Com 168H
Project Number: 17065-0017
Project Manager: Chad Snell

Reported:
12/12/19 11:33

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

** Methods marked with ** are non-accredited methods.

Soil data is reported on an "as received" weight basis, unless reported otherwise.

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