

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	
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) NCS1901528176
Contact mailing address: 200 Energy Court	Farmington, New Mexico 87401

Location of Release Source

Latitude 36.1643583 Longitude -107.395938
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Logos 002	Site Type: Wellsite
Date Release Discovered: 12/31/2018	API# (if applicable) 30-043-21120

Unit Letter	Section	Township	Range	County
I	6	22N	5W	Sandoval

NMOCD

MAR 26 2019

DISTRICT III

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 checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 18 bbls	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input 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 12/31/18, a leak was discovered at the Logos 2. The leak was calculated at 18 bbls of oil, which remained right around the wellhead. Clean up activities have taken place and conformation sampling took place on Thursday January 10th, 2019.

State of New Mexico
Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC?

☐ Yes ☒ 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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
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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?	130 (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 1/2-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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Oil Conservation Division

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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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

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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Oil Conservation Division

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Closure

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

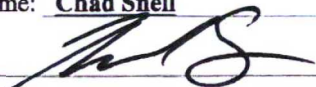
Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or 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 Snell

Title: HSE TECH

Signature: 

Date: 3-26-2019

email: csnell@enduringresources.com

Telephone: (505)444-0586

OCD Only

Received by: oos

Date: 3/26/19

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: 4/9/19

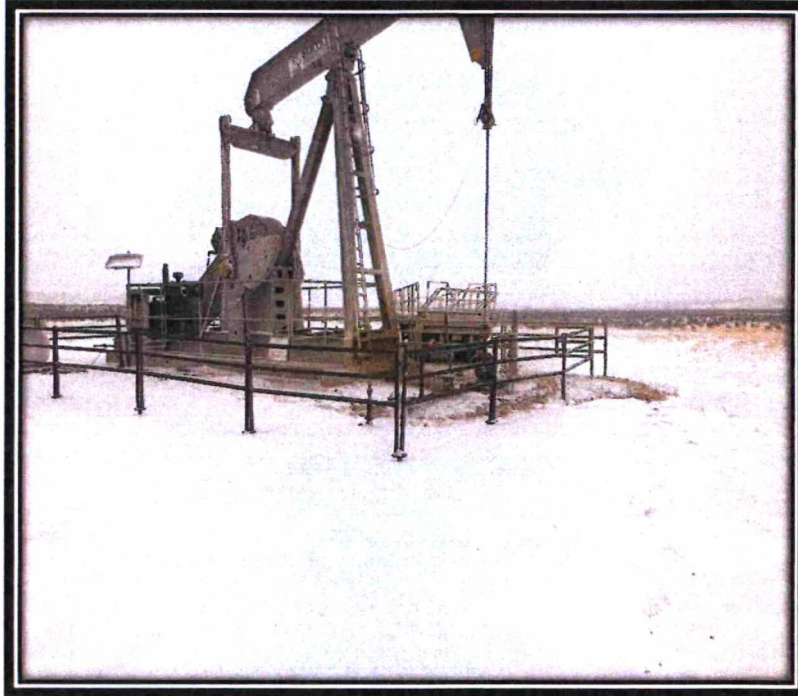
Printed Name: Cory

Title: Environmental Spec.



Enduring Resources, LLC
Photo Page
Logos 2
30-043-21120

Photos of Release

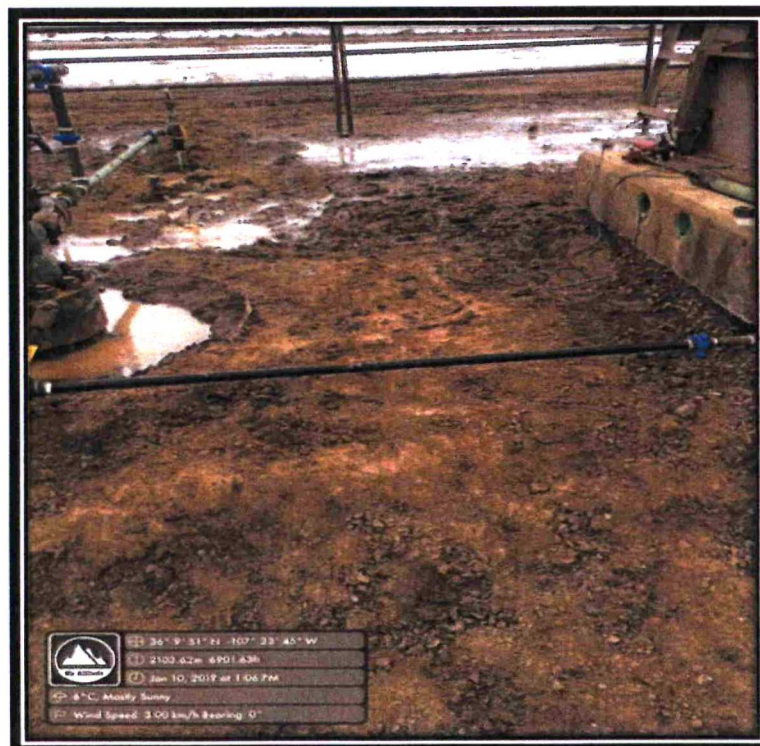




Enduring Resources, LLC
Photo Page
Logos 2
30-043-21120

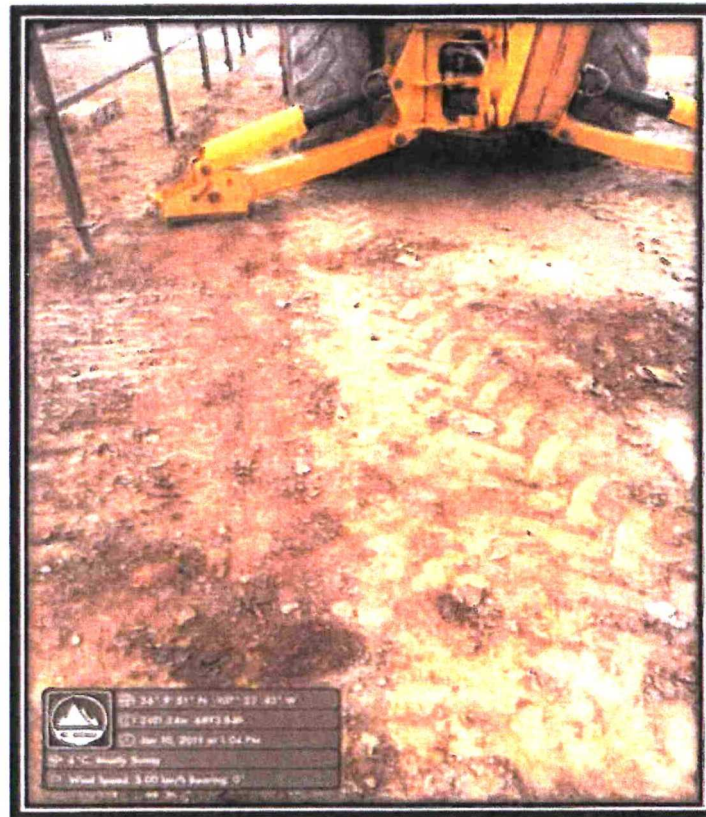


Photos of Sampling





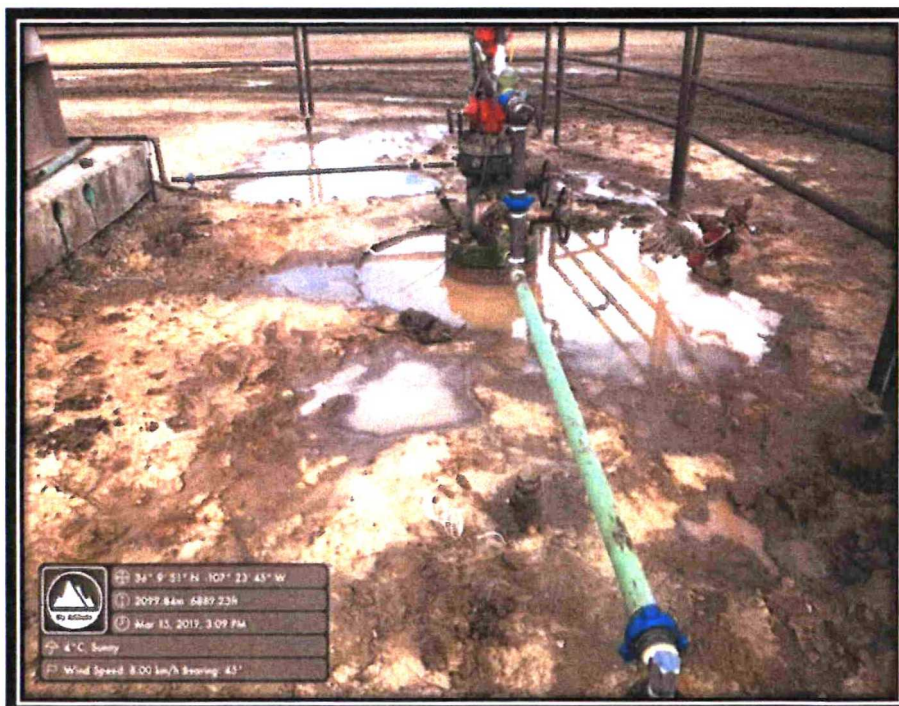
Enduring Resources, LLC
Photo Page
Logos 2
30-043-21120

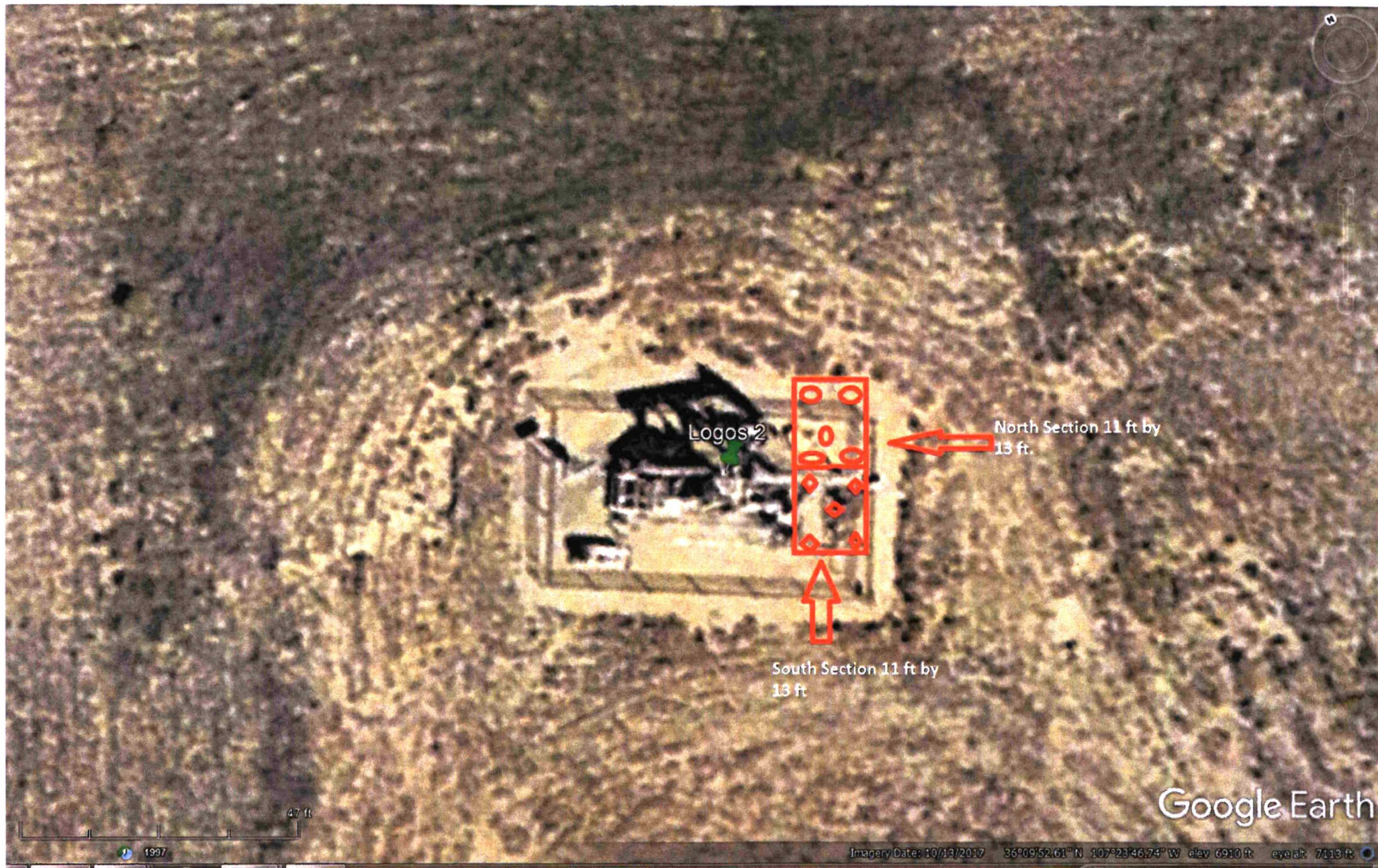




Enduring Resources, LLC
Photo Page
Logos 2
30-043-21120

Photos from 3/15/2019 sampling event.





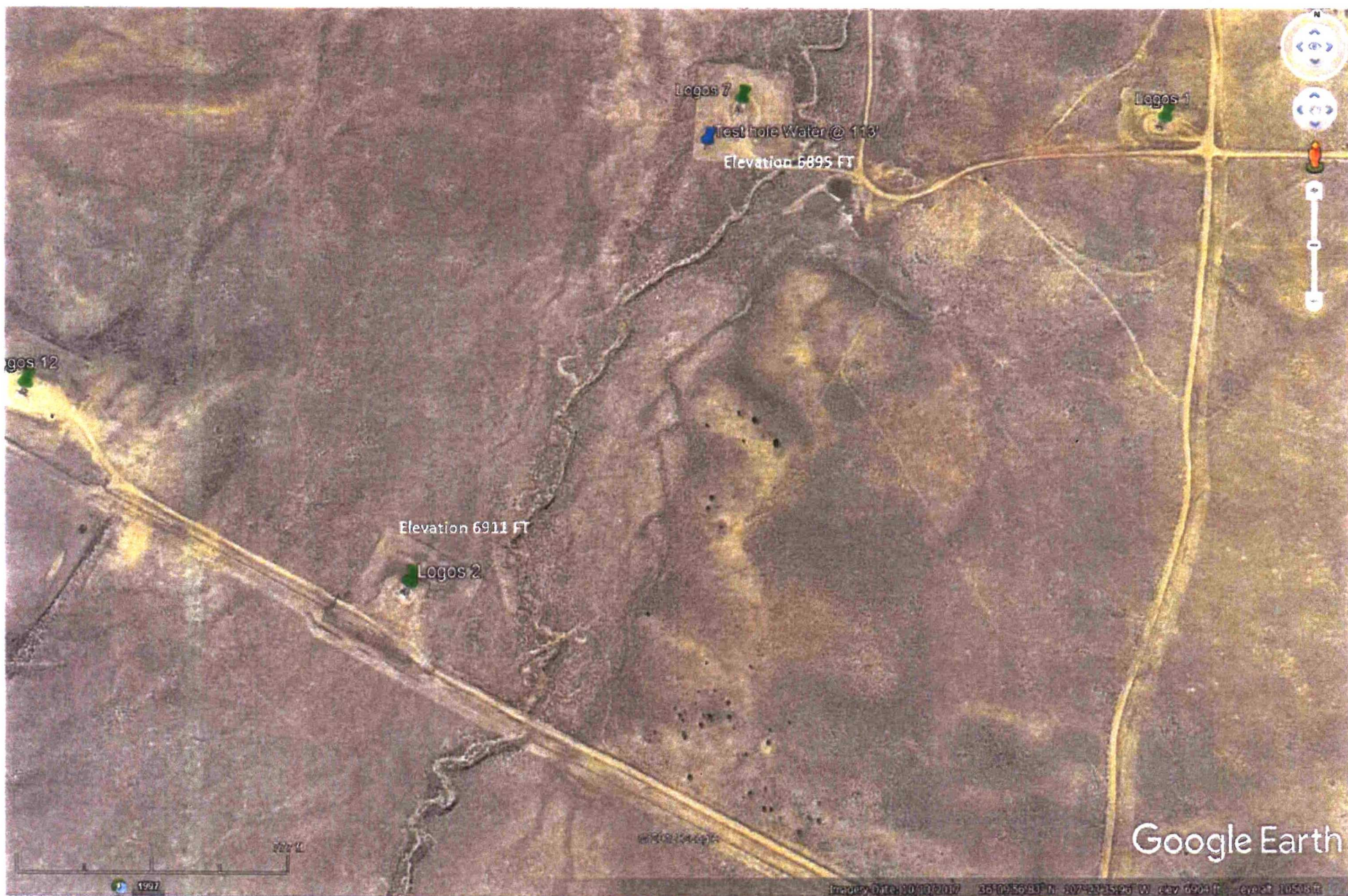
Logos 2

North Section 11 ft by
13 ft.

South Section 11 ft by
13 ft

Google Earth

Imagery Date: 10/13/2017 36°09'52.61" N 107°23'46.74" W elev 6910 ft eye alt 7113 ft



MO-TE DRILLING, INC.

DAY SAT

DRILLER Josh LEFT TOWN ARRIVED FIELD

HELPER Brendo LEFT FIELD ARRIVED TOWN

HELPER TOTAL FOOTAGE TODAY

RIG NO. 208 DATE 9-7-13 CLIENT Logos op LLC

BEGIN WORK ON HOLE NO Logos #7 Test Hole AT FEET

BEGIN WORK ON HOLE NO. 30-043-21155 AT FEET

TIME	FROM	TO	ACTIVITY
7:30	9:00		Move Rig Rig up
9:00	9:10		DR: 11 6 1/2" Hole 0-40' TDH
9:10	10:10		Stand by
10:10	10:15		Check for water - NO WATER
10:15	10:31		TDH DR: 11 6 1/2" Hole 40-65' TDH
10:31	11:31		Stand by
11:31	11:36		Check for water - NO WATER
11:36	12:04		TDH DR: 11 6 1/2" Hole 65-115'
12:04	12:54		clean hole TDH
12:54	1:54		Stand by
1:54	2:00		Check for water - WATER @ 113'

BIT RECORD		
DATE & NAME	SERIAL NO.	PORTAGE
CIRCULATION MATERIAL		
QUAN.	UNIT	MATERIAL

NO. OF LOADS OF WATER SOURCE

MO-TE DRILLING, INC.

DAY SAT

DRILLER Josh LEFT TOWN ARRIVED FIELD

HELPER Brendo LEFT FIELD ARRIVED TOWN

HELPER TOTAL FOOTAGE TODAY

RIG NO. 208 DATE 9-7-13 CLIENT Logos op LLC

BEGIN WORK ON HOLE NO Logos #7 Test Hole AT FEET

BEGIN WORK ON HOLE NO. AT FEET

TIME	FROM	TO	ACTIVITY
0'	35'		Loose Dry Sand
35'	40'		Soft Dry sand stone
40'	45'		Soft Dry sand stone
45'	47'		Shale (Grey)
47'	65'		Soft Dry sand stone
65'	72'		Soft Dry sand stone
72'	78'		Damp sand stone
78'	115'		Shale (Grey) Dry

BIT RECORD		
DATE & NAME	SERIAL NO.	PORTAGE
CIRCULATION MATERIAL		
QUAN.	UNIT	MATERIAL

NO. OF LOADS OF WATER SOURCE



National Wetlands Inventory

surface waters and wetlands

ABOUT

GET DATA

PRINT

FIND LOCATION

BASEMAPS

MAP LAYERS

- ☒ Wetlands 1 2
- ☐ Riparian 1 2
- ☐ Riparian Mapping Areas 1 2
- ☒ Data Source 1 2
 - ☐ Source Type
 - ☐ Image Scale
 - ☐ Image Year
- ☐ Areas of Interest 1
- ☐ FWS Managed Lands 1 2
- ☐ Historic Wetland Data 1 2



Measure

Feet

Measurement Result

363.4 Feet

LEGEND

10,128
36.165 -107.398

U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands.team@fws.gov | 304.861.1000





National Wetlands Inventory

surface waters and wetlands

ABOUT

GET DATA

PRINT

FIND LOCATION

BASEMAPS >

MAP LAYERS >

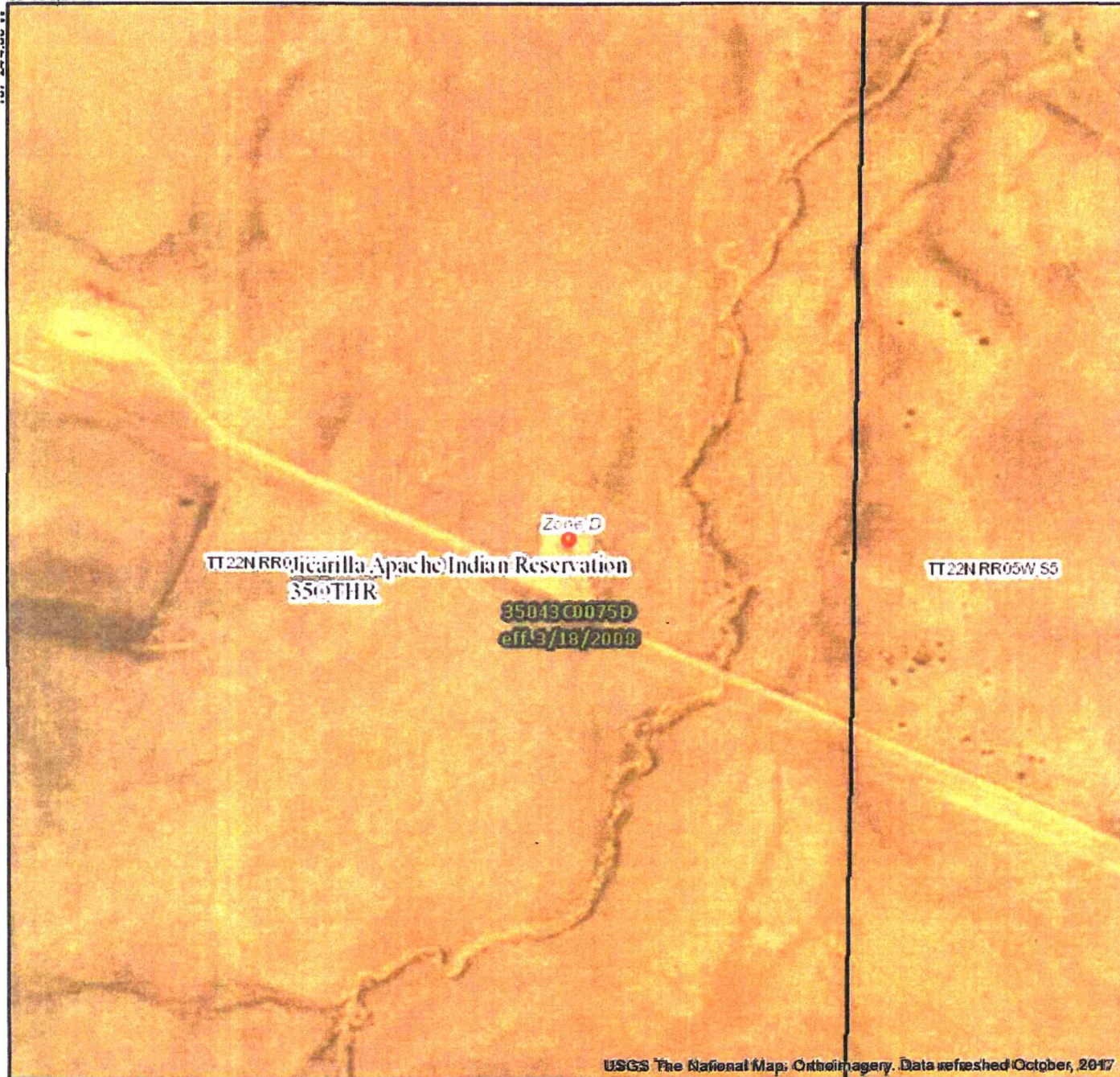
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- ☒ Data Source 1 2
 - ☐ Source Type
 - ☐ Image Scale
 - ☐ Image Year
- ☐ Areas of Interest 1 2
- ☐ FWS Managed Lands 1 2
- ☐ Historic Wetland Data 1 2



National Flood Hazard Layer FIRMette



36°10'6.24"N



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
- OTHER AREAS OF FLOOD HAZARD**
- 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 J
 - 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**
- NO SCREEN Area of Minimal Flood Hazard Zone X
 - Effective LOMRs
 - Area of Undetermined Flood Hazard Zone
- 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 2/7/2019 at 11:06:04 AM 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.

USGS The National Map, Orthoimagery. Data refreshed October, 2017

0 250 500 1,000 1,500 2,000 Feet 1:6,000

36°9'37.20"N

107°23'21.19"W

Chad Snell

From: Chad Snell
Sent: Wednesday, March 13, 2019 2:31 PM
To: 'Smith, Cory, EMNRD'; Fields, Vanessa, EMNRD; James McDaniel
Cc: Powell, Brandon, EMNRD
Subject: RE: Confirmation Sampling - January 7, 2019

Cory,
Confirmation sampling for the Logos #2 will take place Friday March 15th 2019 at 2:45pm If you have any questions please let me know.
Thanks.

From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Wednesday, March 13, 2019 10:10 AM
To: Chad Snell <CSnell@enduringresources.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; James McDaniel <JMcDaniel@enduringresources.com>
Cc: Kenny Dearen <KDearen@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio Lucero <ALucero@enduringresources.com>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Subject: RE: Confirmation Sampling - January 7, 2019

Chad,

OCD has received the final C-141 for the release on the Logos #2. The OCD has denied the C-141 because the sampling does not meet the requires of [19.15.29.12](#) NMAC.

As discussed onsite on 1/10/19 at the Chaco 175H Enduring needed to follow the 200sqft sampling procedure because I was not going to attend the release as I had another inspection to perform.

The area needs to be resampled per [19.15.29.12](#) NMAC and the closure document need to be updated and resubmitted.

Thank you,

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: Chad Snell <CSnell@enduringresources.com>
Sent: Tuesday, January 8, 2019 6:52 AM
To: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>; James McDaniel <JMcDaniel@enduringresources.com>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Kenny Dearen <KDearen@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio

Lucero <ALucero@enduringresources.com>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>

Subject: [EXT] RE: Confirmation Sampling - January 7, 2019

Good morning,

Conformation sampling will begin Thursday January 10th, 2019. We will start at the NEU 2207 16B at 9:00am followed by the NE Chaco 173H and finishing up at the Logos 2. If you have any questions please let me know.

Thanks.

From: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Sent: Monday, January 07, 2019 7:30 AM

To: James McDaniel <JMcDaniel@enduringresources.com>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>

Cc: Kenny Dearen <KDearen@enduringresources.com>; Chad Snell <CSnell@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio Lucero <ALucero@enduringresources.com>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>

Subject: RE: Confirmation Sampling - January 7, 2019

Good morning James,

As discussed this morning sampling will be moved to Thursday January 10, 2019 due to road conditions. Sampling can occur at both locations during this time.

Please let Cory know what time sampling will occur.

Thank you,

Vanessa Fields
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 119
Cell: (505) 419-0463
vanessa.fields@state.nm.us

From: James McDaniel <JMcDaniel@enduringresources.com>

Sent: Friday, January 4, 2019 2:44 PM

To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Cc: Kenny Dearen <KDearen@enduringresources.com>; Chad Snell <CSnell@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio Lucero <ALucero@enduringresources.com>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>

Subject: [EXT] RE: Confirmation Sampling - January 7, 2019

Cory,

The inspections from Dec 4 to current will be brought to the pond, and the equipment to check the leak detection will be brought as well. The sampling for the NE Chaco 173H will need to be postponed, as we were not able to get into the site as we had hoped for the cleanup today due to cold temperatures. Thanks much!

James McDaniel

HSE Supervisor

Enduring Resources

CSP #30009

CHMM #15676

Office: 505-636-9731

Cell: 505-444-3004

jmcdaniel@enduringresources.com



From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>

Sent: Friday, January 04, 2019 2:24 PM

To: James McDaniel <JMcDaniel@enduringresources.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Cc: Kenny Dearen <KDearen@enduringresources.com>; Chad Snell <CSnell@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio Lucero <ALucero@enduringresources.com>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>

Subject: RE: Confirmation Sampling - January 7, 2019

James,

The times work, Please make sure on Monday that Enduring has the equipment to inspect the leak detection system at the 16B Pond Please also bring a copy of the log of the inspections of the leak detection starting from the week of December 4 2018.

The area is expecting a winter storm Sunday so please let me know ASAP Monday morning if sampling needs to be postponed. I haven't seen the release sites but if they are covered in snow Enduring may be required to return to the site at a later date to collect any possible grab samples of wet or stained areas prior to closure.

If you have any questions please give me a call.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: James McDaniel <JMcDaniel@enduringresources.com>

Sent: Thursday, January 3, 2019 9:35 AM

To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Cc: Kenny Dearen <KDearen@enduringresources.com>; Chad Snell <CSnell@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio Lucero <ALucero@enduringresources.com>

Subject: [EXT] Confirmation Sampling - January 7, 2019

As discussed with Vanessa on December 31, 2018, the confirmation sampling for the water release at the NEU 2207 16B that occurred on 12/26/2018 will be rescheduled for 9 AM on 1/7/2019. Additionally, Enduring had two additional

minor releases that occurred on 12/31/2018 at the Logos 2 and the NE Chaco 173H. Cleanup activities have taken place on the Logos 2 for a 16 bbl oil spill around the wellhead, and a 15 bbl water spill will be cleaned up at the NE Chaco 173H on 1/4/2019. Confirmation sampling for these releases will also occur on 1/7/2018. Confirmation Sampling will occur at the Logos 2, following the sampling at the NEU 2207 16B, at approximately 11 AM, and confirmation sampling will occur on the NE Chaco 173H Battery at 1:00 PM, immediately following the confirmation sampling at the Logos 2. Thank you for your time in regards to these incidents.

James McDaniel

HSE Supervisor

Enduring Resources

CSP #30009

CHMM #15676

Office: 505-636-9731

Cell: 505-444-3004

jmcdaniel@enduringresources.com



Chad Snell

From: Chad Snell
Sent: Tuesday, January 08, 2019 6:52 AM
To: 'Fields, Vanessa, EMNRD'; James McDaniel; Smith, Cory, EMNRD
Cc: Kenny Dearen; John Dockter; Antonio Lucero; Powell, Brandon, EMNRD
Subject: RE: Confirmation Sampling - January 7, 2019

Good morning,

Confirmation sampling will begin Thursday January 10th, 2019. We will start at the NEU 2207 16B at 9:00am followed by the NE Chaco 173H and finishing up at the Logos 2. If you have any questions please let me know.

Thanks.

From: Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Sent: Monday, January 07, 2019 7:30 AM
To: James McDaniel <JMcDaniel@enduringresources.com>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Kenny Dearen <KDearen@enduringresources.com>; Chad Snell <CSnell@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio Lucero <ALucero@enduringresources.com>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Subject: RE: Confirmation Sampling - January 7, 2019

Good morning James,

As discussed this morning sampling will be moved to Thursday January 10, 2019 due to road conditions. Sampling can occur at both locations during this time.

Please let Cory know what time sampling will occur.

Thank you,

Vanessa Fields
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 119
Cell: (505) 419-0463
vanessa.fields@state.nm.us

From: James McDaniel <JMcDaniel@enduringresources.com>
Sent: Friday, January 4, 2019 2:44 PM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Cc: Kenny Dearen <KDearen@enduringresources.com>; Chad Snell <CSnell@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio Lucero <ALucero@enduringresources.com>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Subject: [EXT] RE: Confirmation Sampling - January 7, 2019

Cory,

The inspections from Dec 4 to current will be brought to the pond, and the equipment to check the leak detection will be brought as well. The sampling for the NE Chaco 173H will need to be postponed, as we were not able to get into the site as we had hoped for the cleanup today due to cold temperatures. Thanks much!

James McDaniel
HSE Supervisor
Enduring Resources
CSP #30009
CHMM #15676
Office: 505-636-9731
Cell: 505-444-3004
jmcdaniel@enduringresources.com



From: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Friday, January 04, 2019 2:24 PM
To: James McDaniel <JMcdaniel@enduringresources.com>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>
Cc: Kenny Dearen <KDearen@enduringresources.com>; Chad Snell <CSnell@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio Lucero <ALucero@enduringresources.com>; Powell, Brandon, EMNRD <Brandon.Powell@state.nm.us>
Subject: RE: Confirmation Sampling - January 7, 2019

James,

The times work, Please make sure on Monday that Enduring has the equipment to inspect the leak detection system at the 16B Pond Please also bring a copy of the log of the inspections of the leak detection starting from the week of December 4 2018.

The area is expecting a winter storm Sunday so please let me know ASAP Monday morning if sampling needs to be postponed. I haven't seen the release sites but if they are covered in snow Enduring may be required to return to the site at a later date to collect any possible grab samples of wet or stained areas prior to closure.

If you have any questions please give me a call.

Cory Smith
Environmental Specialist
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410
(505)334-6178 ext 115
cory.smith@state.nm.us

From: James McDaniel <jmcdaniel@enduringresources.com>

Sent: Thursday, January 3, 2019 9:35 AM

To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>; Fields, Vanessa, EMNRD <Vanessa.Fields@state.nm.us>

Cc: Kenny Dearen <kdearen@enduringresources.com>; Chad Snell <CSnell@enduringresources.com>; John Dockter <JDockter@enduringresources.com>; Antonio Lucero <ALucero@enduringresources.com>

Subject: [EXT] Confirmation Sampling - January 7, 2019

As discussed with Vanessa on December 31, 2018, the confirmation sampling for the water release at the NEU 2207 16B that occurred on 12/26/2018 will be rescheduled for 9 AM on 1/7/2019. Additionally, Enduring had two additional minor releases that occurred on 12/31/2018 at the Logos 2 and the NE Chaco 173H. Cleanup activities have taken place on the Logos 2 for a 16 bbl oil spill around the wellhead, and a 15 bbl water spill will be cleaned up at the NE Chaco 173H on 1/4/2019. Confirmation sampling for these releases will also occur on 1/7/2019. Confirmation Sampling will occur at the Logos 2, following the sampling at the NEU 2207 16B, at approximately 11 AM, and confirmation sampling will occur on the NE Chaco 173H Battery at 1:00 PM, immediately following the confirmation sampling at the Logos 2. Thank you for your time in regards to these incidents.

James McDaniel

HSE Supervisor

Enduring Resources

CSP #30009

CHMM #15676

Office: 505-636-9731

Cell: 505-444-3004

jmcdaniel@enduringresources.com





ANALYTICAL REPORT

January 16, 2019

Enduring Resources

Sample Delivery Group: L1060392

Samples Received: 01/11/2019

Project Number:

Description: Logos 2

Report To:

Chad Snell

200 Energy Court

Farmington, NM 87401

Entire Report Reviewed By:

Daphne Richards

Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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ONE LAB. NATIONWIDE.



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SAMPLE SUMMARY

ONE LAB NATIONWIDE.



WELL HEAD AREA L1060392-01 Solid

Collected by
Chad Snell

Collected date/time
01/10/19 13:05

Received date/time
01/11/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1223608	1	01/15/19 14:09	01/15/19 14:22	KBC
Wet Chemistry by Method 9056A	WG1222712	1	01/14/19 10:38	01/14/19 13:31	NUM
Volatile Organic Compounds (GC) by Method 8015/8021	WG1223441	100	01/12/19 20:18	01/15/19 20:44	DWR
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1222953	1	01/16/19 06:02	01/16/19 14:09	KME
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1222953	5	01/16/19 06:02	01/16/19 15:12	KME

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

CASE NARRATIVE

ONE LAB. NATIONWIDE.



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne Richards
Project Manager



² Tc

³ Ss

⁴ Cr

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

WELL HEAD AREA

Collected date/time: 01/10/19 13:05

SAMPLE RESULTS - 01

L1060392

ONE LAB. NATIONWIDE.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.2		1	01/15/2019 14:22	WG1223608

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	mg/kg		mg/kg			
	382		12.0	1	01/14/2019 13:31	WG1222712

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	mg/kg		mg/kg			
	0.122		0.0601	100	01/15/2019 20:44	WG1223441
Toluene	ND		0.601	100	01/15/2019 20:44	WG1223441
Ethylbenzene	0.416		0.0601	100	01/15/2019 20:44	WG1223441
Total Xylene	3.11		0.180	100	01/15/2019 20:44	WG1223441
TPH (GC/FID) Low Fraction	179		12.0	100	01/15/2019 20:44	WG1223441
(S) o,a,o-Trifluorotoluene(FID)	94.2		77.0-120		01/15/2019 20:44	WG1223441
(S) o,a,o-Trifluorotoluene(PID)	103		72.0-128		01/15/2019 20:44	WG1223441

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	mg/kg		mg/kg			
	358		24.1	5	01/16/2019 15:12	WG1222953
C28-C40 Oil Range	160		4.81	1	01/16/2019 14:09	WG1222953
(S) o-Terphenyl	115		18.0-148		01/16/2019 15:12	WG1222953
(S) o-Terphenyl	121		18.0-148		01/16/2019 14:09	WG1222953

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc

WG1223608

Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE

[L1060392-01](#)

Method Blank (MB)

(MB) R3376221-1 01/15/19 14:22

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1060386-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1060386-08 01/15/19 14:22 • (DUP) R3376221-3 01/15/19 14:22

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits
Total Solids	83.3	83.3	1	0.0510		10

Laboratory Control Sample (LCS)

(LCS) R3376221-2 01/15/19 14:22

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

WG1222712

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3375636-1 01/14/19 12:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	1.44	J	0.795	10.0

L1059362-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1059362-01 01/14/19 13:13 • (DUP) R3375636-3 01/14/19 13:22

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	92.7	94.6	1	13.5		15

L1060433-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1060433-15 01/15/19 16:26 • (DUP) R3376112-6 01/15/19 16:34

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	44.2	41.4	1	6.56		15

Laboratory Control Sample (LCS)

(LCS) R3375636-2 01/14/19 12:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	196	98.2	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3376112-3 01/15/19 13:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	208	104	80.0-120	

L1060433-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1060433-08 01/15/19 14:49 • (MS) R3376112-4 01/15/19 14:58 • (MSD) R3376112-7 01/15/19 16:43

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	500	ND	535	470	106	93.0	1	80.0-120			12.9	15

ACCOUNT:
Enduring Resources

PROJECT:

SDG:
L1060392DATE/TIME:
01/16/19 20:47PAGE:
7 of 13

2 Tc

3 Ss

4 Cn

5 Sr

Qc

7 Gl

8 Al

9 Sc

WG1223441

Volatile Organic Compounds (GC) by Method 8015/8021

QUALITY CONTROL SUMMARY

L1060392-01

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) R3375908-5 01/15/19 11:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	0.000313	J	0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) o,a,o-Trifluorotoluene(FID)	94.8			77.0-120
(S) o,a,o-Trifluorotoluene(PID)	104			72.0-128

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3375908-1 01/15/19 09:29 • (LCSD) R3375908-2 01/15/19 09:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0455	0.0457	91.1	91.5	76.0-121			0.436	20
Toluene	0.0500	0.0452	0.0452	90.5	90.3	80.0-120			0.136	20
Ethylbenzene	0.0500	0.0486	0.0486	97.2	97.2	80.0-124			0.0284	20
Total Xylene	0.150	0.142	0.142	94.8	94.7	37.0-160			0.0703	20
(S) o,a,o-Trifluorotoluene(FID)				94.0	94.4	77.0-120				
(S) o,a,o-Trifluorotoluene(PID)				102	102	72.0-128				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3375908-3 01/15/19 10:18 • (LCSD) R3375908-4 01/15/19 10:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.23	5.27	95.0	95.9	72.0-127			0.875	20
(S) o,a,o-Trifluorotoluene(FID)				107	107	77.0-120				
(S) o,a,o-Trifluorotoluene(PID)				113	114	72.0-128				

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

WG1223441

Volatile Organic Compounds (GC) by Method 8015/8021

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L1060392-D1

L1060386-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1060386-05 01/15/19 19:07 • (MS) R3375908-6 01/15/19 21:08 • (MSD) R3375908-7 01/15/19 21:32

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	ND	0.0360	0.0359	71.3	71.0	1	10.0-155			0.465	32
Toluene	0.0500	ND	0.0335	0.0332	66.2	65.5	1	10.0-160			1.12	34
Ethylbenzene	0.0500	ND	0.0343	0.0339	68.6	67.9	1	10.0-160			1.11	32
Total Xylene	0.150	ND	0.0991	0.0999	65.4	65.9	1	10.0-160	J6	J6	0.804	32
(S) o,a,a-Trifluorotoluene(FID)					91.6	93.8		77.0-120				
(S) o,a,a-Trifluorotoluene(PID)					99.4	101		72.0-128				

L1060386-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1060386-05 01/15/19 19:07 • (MS) R3375908-8 01/15/19 21:56 • (MSD) R3375908-9 01/15/19 22:21

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	ND	3.03	1.45	54.3	25.5	1	10.0-151		J3	70.8	28
(S) o,a,a-Trifluorotoluene(FID)					94.5	92.4		77.0-120				
(S) o,a,a-Trifluorotoluene(PID)					103	103		72.0-128				

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

11 Al

9 Sc

WG1222953

Semi-Volatile Organic Compounds (GC) by Method 8015

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L1060392-01

Method Blank (MB)

(MB) R3376289-1 01/16/19 10:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	87.8			18.0-148

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3376289-2 01/16/19 10:58 • (LCSD) R3376289-3 01/16/19 11:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Extractable Petroleum Hydrocarbon	50.0	34.8	35.1	69.6	70.2	50.0-150			0.858	20
C10-C28 Diesel Range	50.0	37.8	38.0	75.6	76.0	50.0-150			0.528	20
(S) o-Terphenyl				74.5	74.5	18.0-148				

2 Tc

3 Ss

4 Cn

5 Sr

Qc

7 Gl

8 Al

9 Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc

Gl

⁸ Al⁹ Sc

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ²	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ¹	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	A130792	Tennessee ¹	2006
Louisiana ¹	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas ⁸	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

A2LA - ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA - ISO 17025 ⁸	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:
Enduring Resources

PROJECT:

SDG:
L1060392

DATE/TIME:
01/16/19 20:47

PAGE:
12 of 13

[illegible]



ANALYTICAL REPORT

March 21, 2019

Enduring Resources

Sample Delivery Group: L1079512
Samples Received: 03/16/2019
Project Number:
Description: Logos 2

Report To: Chad Snell
200 Energy Court
Farmington, NM 87401

Entire Report Reviewed By:

Daphne Richards
Project Manager










Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



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ONE LAB. NATIONWIDE.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



NORTH SECTION L1079512-01 Solid

Collected by
Chad Snell

Collected date/time
03/15/19 14:55

Received date/time
03/16/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1252204	1	03/20/19 13:34	03/20/19 13:46	JD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1251199	1	03/18/19 18:00	03/18/19 22:26	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1251280	1	03/16/19 12:12	03/17/19 19:28	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1251518	1	03/17/19 23:29	03/18/19 11:58	TJD	Mt. Juliet, TN

SOUTH SECTION L1079512-02 Solid

Collected by
Chad Snell

Collected date/time
03/15/19 14:50

Received date/time
03/16/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1252204	1	03/20/19 13:34	03/20/19 13:46	JD	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1251199	1	03/18/19 18:00	03/18/19 22:57	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1251280	1	03/16/19 12:12	03/17/19 19:49	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1251518	1	03/17/19 23:29	03/18/19 12:14	TJD	Mt. Juliet, TN



CASE NARRATIVE

ONE LAB. NATIONWIDE.



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Daphne Richards
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

NORTH SECTION

Collected date/time: 03/15/19 14:55

SAMPLE RESULTS - 01

L1079512

ONE LAB. NATIONWIDE.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	81.1		1	03/20/2019 13:46	WG1252204

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	282	J3	12.3	1	03/18/2019 22:26	WG1251199

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	ND		0.000617	1	03/17/2019 19:28	WG1251280
Toluene	ND		0.00617	1	03/17/2019 19:28	WG1251280
Ethylbenzene	ND		0.000617	1	03/17/2019 19:28	WG1251280
Total Xylene	ND		0.00185	1	03/17/2019 19:28	WG1251280
TPH (GC/FID) Low Fraction	ND		0.123	1	03/17/2019 19:28	WG1251280
(S) o,a,a-Trifluorotoluene(FID)	91.3		77.0-120		03/17/2019 19:28	WG1251280
(S) o,a,a-Trifluorotoluene(PID)	95.3		72.0-128		03/17/2019 19:28	WG1251280

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	5.98		4.93	1	03/18/2019 11:58	WG1251518
C28-C40 Oil Range	ND		4.93	1	03/18/2019 11:58	WG1251518
(S) o-Terphenyl	40.3		18.0-148		03/18/2019 11:58	WG1251518



SOUTH SECTION

Collected date/time: 03/15/19 14:50

SAMPLE RESULTS - 02

L1079512

ONE LAB. NATIONWIDE.



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	80.4		1	03/20/2019 13:46	WG1252204

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	mg/kg		mg/kg			
	285		12.4	1	03/18/2019 22:57	WG1251199

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg			
Benzene	ND		0.000622	1	03/17/2019 19:49	WG1251280
Toluene	ND		0.00622	1	03/17/2019 19:49	WG1251280
Ethylbenzene	ND		0.000622	1	03/17/2019 19:49	WG1251280
Total Xylene	ND		0.00187	1	03/17/2019 19:49	WG1251280
TPH (GC/FID) Low Fraction	ND		0.124	1	03/17/2019 19:49	WG1251280
(S) o,a,a-Trifluorotoluene(FID)	91.1		77.0-120		03/17/2019 19:49	WG1251280
(S) o,a,a-Trifluorotoluene(PID)	95.1		72.0-128		03/17/2019 19:49	WG1251280

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg			
C10-C28 Diesel Range	25.7		4.97	1	03/18/2019 12:14	WG1251518
C28-C40 Oil Range	19.4		4.97	1	03/18/2019 12:14	WG1251518
(S) o-Terphenyl	29.2		18.0-148		03/18/2019 12:14	WG1251518



WG1252204

Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

[L1079512-01,02](#)

Method Blank (MB)

(MB) R3393639-1 03/20/19 13:46

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00100			

L1079520-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1079520-01 03/20/19 13:46 • (DUP) R3393639-3 03/20/19 13:46

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	64.0	64.7	1	1.10		10

Laboratory Control Sample (LCS)

(LCS) R3393639-2 03/20/19 13:46

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	



WG1251199

Wet Chemistry by Method 9056A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3392867-1 03/18/19 20:00

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Chloride	3.27	J	0.795	10.0

L1079512-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1079512-01 03/18/19 22:26 • (DUP) R3392867-3 03/18/19 22:42

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	282	204	1	32.0	J3	15

L1079660-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1079660-23 03/19/19 02:56 • (DUP) R3392867-6 03/19/19 03:12

	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/kg	mg/kg		%		%
Chloride	461	465	1	0.757		15

Laboratory Control Sample (LCS)

(LCS) R3392867-2 03/18/19 20:16

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Chloride	200	218	109	80.0-120	

L1079660-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1079660-04 03/19/19 01:21 • (MS) R3392867-4 03/19/19 01:37 • (MSD) R3392867-5 03/19/19 01:52

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Chloride	549	474	1070	1060	109	106	1	80.0-120			1.37	15

Gp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

WG1251280

Volatile Organic Compounds (GC) by Method 8015/8021

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

[L1079512-01,02](#)

Method Blank (MB)

(MB) R3392594-5 03/17/19 12:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	0.000151	J	0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	0.0222	J	0.0217	0.100
(S) o,a,a-Trifluorotoluene(FID)	92.4			77.0-120
(S) o,a,a-Trifluorotoluene(PID)	96.1			72.0-128

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3392594-1 03/17/19 11:12 • (LCSD) R3392594-2 03/17/19 11:33

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.0463	0.0482	92.6	96.4	76.0-121			4.09	20
Toluene	0.0500	0.0454	0.0458	90.8	91.5	80.0-120			0.800	20
Ethylbenzene	0.0500	0.0482	0.0476	96.4	95.1	80.0-124			1.30	20
Total Xylene	0.150	0.142	0.141	94.6	94.0	37.0-160			0.636	20
(S) o,a,a-Trifluorotoluene(FID)				92.0	92.3	77.0-120				
(S) o,a,a-Trifluorotoluene(PID)				94.4	94.3	72.0-128				

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3392594-3 03/17/19 11:54 • (LCSD) R3392594-4 03/17/19 12:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.75	5.80	105	106	72.0-127			0.852	20
(S) o,a,a-Trifluorotoluene(FID)				107	108	77.0-120				
(S) o,a,a-Trifluorotoluene(PID)				104	104	72.0-128				

Cd

Tc

Ss

Cn

Sr

Qc

GI

Al

Sc

WG1251280

Volatile Organic Compounds (GC) by Method 8015/8021

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

L1079512-01,02

L1079372-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1079372-03 03/17/19 21:11 • (MS) R3392594-6 03/17/19 21:53 • (MSD) R3392594-7 03/17/19 22:13

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	0.547	1.59	1.58	83.5	82.8	25	10.0-155			0.558	32
Toluene	0.0500	1.11	2.31	2.23	95.8	89.2	25	10.0-160			3.64	34
Ethylbenzene	0.0500	1.98	2.82	2.84	67.6	68.7	25	10.0-160			0.486	32
Total Xylene	0.150	7.11	9.41	9.43	61.3	61.9	25	10.0-160	<u>J6</u>	<u>J6</u>	0.212	32
(S) a,a,a-Trifluorotoluene(FID)					111	105		77.0-120				
(S) a,a,a-Trifluorotoluene(PID)					109	109		72.0-128				

L1079372-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1079372-03 03/17/19 21:11 • (MS) R3392594-8 03/17/19 22:34 • (MSD) R3392594-9 03/17/19 22:55

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	139	229	255	65.3	84.5	25	10.0-151			10.9	28
(S) a,a,a-Trifluorotoluene(FID)					122	125		77.0-120	<u>J1</u>	<u>J1</u>		
(S) a,a,a-Trifluorotoluene(PID)					119	122		72.0-128				

Cp

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc

WG1251518

Semi-Volatile Organic Compounds (GC) by Method 8015

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

[L1079512-01,02](#)

Method Blank (MB)

(MB) R3392721-1 03/18/19 11:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	93.4			18.0-148

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3392721-2 03/18/19 11:24 • (LCSD) R3392721-3 03/18/19 11:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	50.0	34.7	33.6	69.4	67.2	50.0-150			3.22	20
(S) o-Terphenyl				87.4	88.1	18.0-148				

Cd

Tc

Ss

Cn

Sr

Qc

Gl

Al

Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico ¹	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

Third Party Federal Accreditations

A2LA - ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA - ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Enduring Resources 200 Energy Court Farmington, NM 87401						Billing Information: James McDaniel 200 Energy Court Farmington, NM 87401						Pres Chk	Analysis / Container / Preservative										Chain of Custody Page ____ of ____	
Report to:						Email To:						No. of Cntrs	<div style="text-align: center; font-size: 2em; margin-top: -50px;"> 8021 (BTEX) 8015 (DRO/GRO/O&G) Chlorides </div>										 Pace Analytical® <small>National Center for Testing & Innovation</small> 1206S Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859 	
Project Description: Logos 2						City/State Collected:																		
Phone: 505-636-9731			Client Project #			Lab Project #						L# L1079512 B170												
Fax:			Site/Facility ID #			P.O. #																		
Collected by (print): Chad Snell			Site/Facility ID #			P.O. #						Acctnum: ENDRESANM Template: Prelogin: TSR: 288 - Daphne Richards PB: Shipped Via:												
Collected by (signature): [Signature]			Quote #			Date Results Needed																		
Immediately Packed on Ice N ___ Y <u>X</u>			Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day									Remarks		Sample # (lab only)										
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time																			
North Section	Cone	SS		3-15-19	2:55pm	X	X	X							-01									
South Section	Cone	SS		3-15-19	2:50pm	X	X	X							-02									
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____						Remarks:						pH _____ Temp _____ Flow _____ Other _____ RAD SOLLEN: <0.5 mEq/Lr												
Samples returned via: _____ UPS _____ FedEx _____ Courier _____						Tracking # 4196 3800 2K13						Sample Receipt Checklist CDC Seal Present/Intact: <input checked="" type="checkbox"/> NP Y CDC Signed/Accurate: <input checked="" type="checkbox"/> Y Bottles arrive intact: <input checked="" type="checkbox"/> Y Correct bottles used: <input checked="" type="checkbox"/> Y Sufficient volume sent: <input checked="" type="checkbox"/> Y If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y Preservation Correct/Checked: <input checked="" type="checkbox"/> Y												
Relinquished by: (Signature) [Signature]			Date: 3-15-19		Time: 4:30pm		Received by: (Signature)				Trip Blank Received: Yes (No) HCL/MeOH TBR				If preservation required by Login: Date/Time									
Relinquished by: (Signature)			Date:		Time:		Received by: (Signature)				Temp: °C Bottles Received: 24±0.24m 2													
Relinquished by: (Signature)			Date:		Time:		Received for lab by: (Signature) [Signature]				Date: 3/16/19 Time: 845				Hold: Condition: NCF OK									