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	NCS1932438454
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Jennifer Deal	Contact Telephone 505-801-6517
Contact email jdeal@hilcorp.com	Incident # NCS1932438454
Contact mailing address 382 Road 3100, Aztec NM 87410	

Location of Release Source

Latitude 36.8865738 Longitude -107.9755554
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Calloway 3M	Site Type Gas Well
Date Release Discovered 11/4/2019 at 3:00pm	API# *30-045-33090*

Unit Letter	Section	Township	Range	County
G	22	31N	11W	San Juan

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:Paul and Mary Bandy*)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls) 12	Volume Recovered (bbls) 0
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release
A release of ~12 bbls of condensate was released due to internal corrosion on the bottom of the condensate tank. The operator removed fluids from tank and re-routed fluids from separator to the water tank. The tank will be pulled and inspected and coated. Release remained on location. 0 bbls were recovered. Environmental will provide OCD 48 hour notice of sampling.

Incident ID	NCS1932438454
District RP	
Facility ID	
Application ID	

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?	>50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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.

State of New Mexico
Oil Conservation Division

Incident ID	NCS1932438454
District RP	
Facility ID	
Application ID	

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: ___Jennifer Deal_____ Title: ____Environmental Specialist_____

Signature:_____ Jennifer Deal _____ Date: __1/15/2020_____

email: ___jdeal@hilcorp.com_____ Telephone: ___(505) 324-5128_____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NCS1932438454
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Jennifer Deal Title: Environmental Specialist

Signature: Jennifer Deal Date: 1/15/2020

email: jdeal@hilcorp.com Telephone: 505-801-6517

OCD Only

Received by: OCD Date: 1/20/2020

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: 3/27/2020

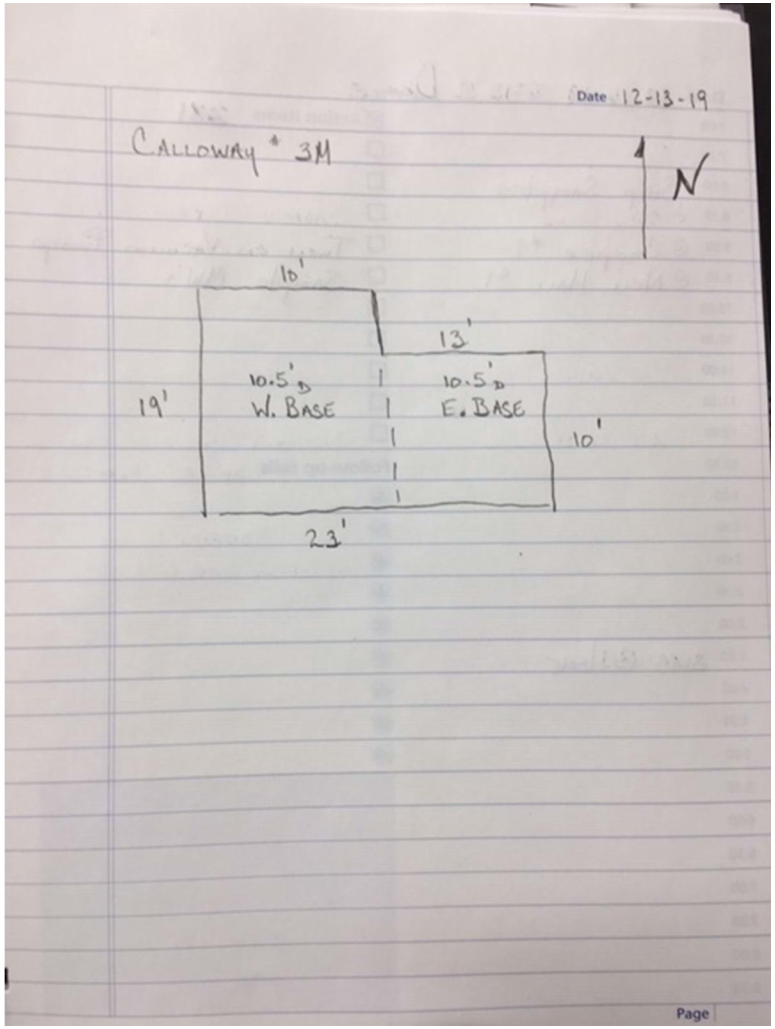
Printed Name: Cory Title: Environmental Specialist

Scaled Map

N

Photographs – 11/4/2019 Initial Release

Field Data



Data table of soil contaminant concentration data

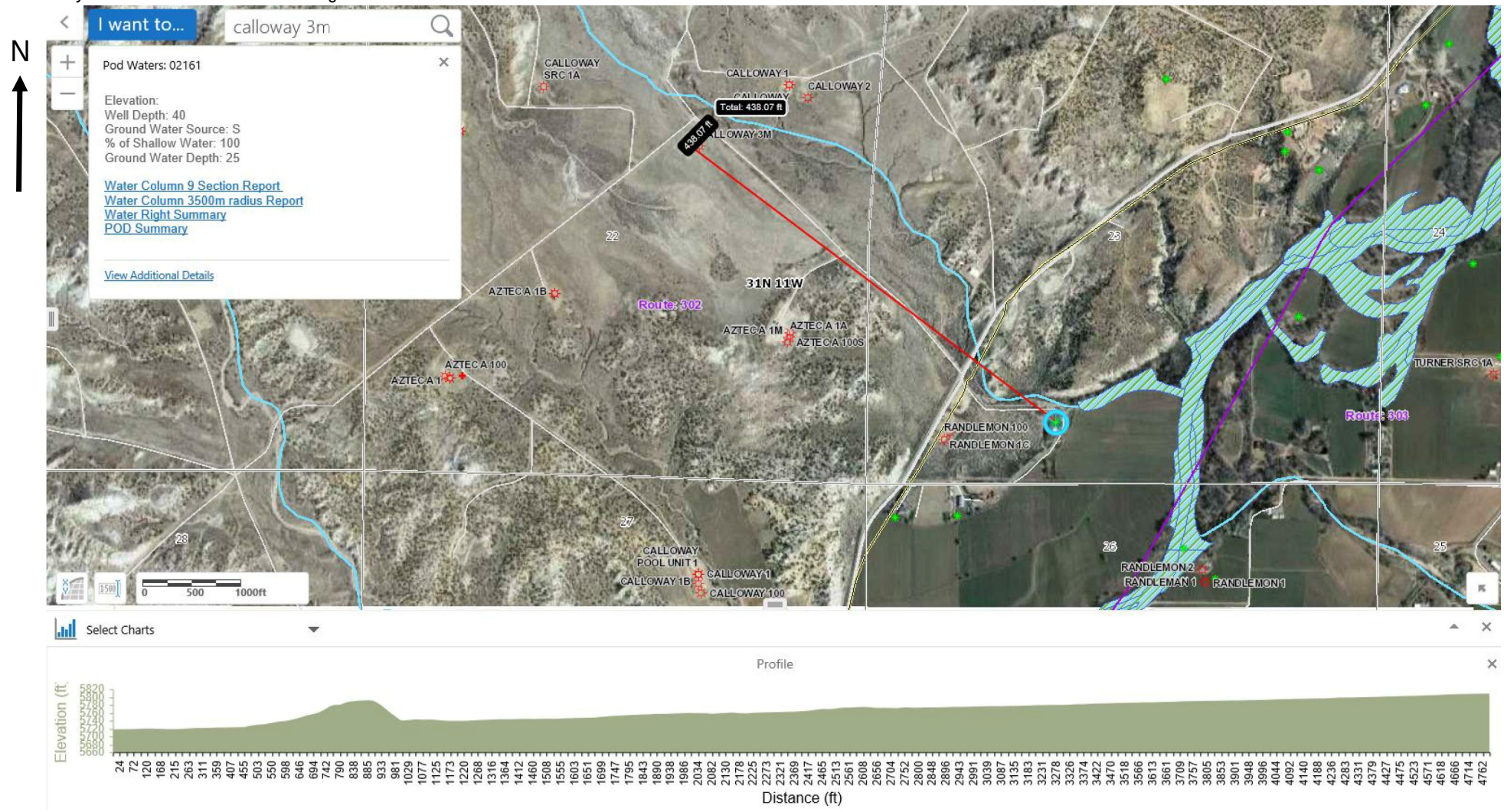
TABLE 1

SOIL ANALYTICAL RESULTS
CALLOWAY 3M
HILCORP ENERGY - L48 WEST

Soil Sample Identification	Sample Date	Field Headspace	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes	Total BTEX	Chlorides (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	MRO+DRO (mg/kg)	TPH (mg/kg)
W. Wall	12/13/2019		0.000639	<0.005	<0.0005	<0.0015	0.0006	ND	<1.0	<4.0	<4.0	<4.0	<4.0
N. Wall	12/13/2019		0.00291	0.00856	0.000717	0.00966	0.0218	ND	0.157	<4.0	<4.0	<4.0	0.157
S. Wall	12/13/2019		0.000837	<0.005	<0.0005	<0.0015	0.0008	ND	<0.1	<4.0	<4.0	<4.0	<4.0
Base	12/13/2019		0.000806	<0.005	<0.0005	<0.0015	0.0008	ND	<0.1	<4.0	<4.0	<4.0	<4.0
E. Wall	12/13/2019		<0.0005	<0.005	0.00055	0.00268	0.0032	22.3	<0.1	<4.0	<4.0	<4.0	<4.0
NMOCD Standards		NE	10	NE	NE	NE	50	10,000	NE	NE	NE	1,000	2,500

Depth to water determination

Pod Waters 02161 elevation = 5718ft
Calloway 3M elevation = 5823 ft making GW >50ft



Depth to water determination

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 01817		SJAR	SJ		4	2	23	31N	11W	236789	4086300*	65	20	45
SJ 02129		SJAR	SJ		4	2	23	31N	11W	236789	4086300*	72	35	37
SJ 02161		SJAR	SJ		4	3	23	31N	11W	235926	4085520*	40	25	15
SJ 02978		SJAR	SJ	3	1	2	23	31N	11W	236309	4086603*	800		
SJ 03827 POD1		SJAR	SJ	2	4	4	23	31N	11W	236710	4085834	17	6	11
SJ 04107 POD1		SJAR	SJ	1	4	2	23	31N	11W	236692	4086423	60		
SJ 04155 POD1		SJAR	SJ	1	4	2	23	31N	11W	236682	4086362	60		

Average Depth to Water: **21 feet**

Minimum Depth: **6 feet**

Maximum Depth: **35 feet**

Record Count: 7

PLSS Search:

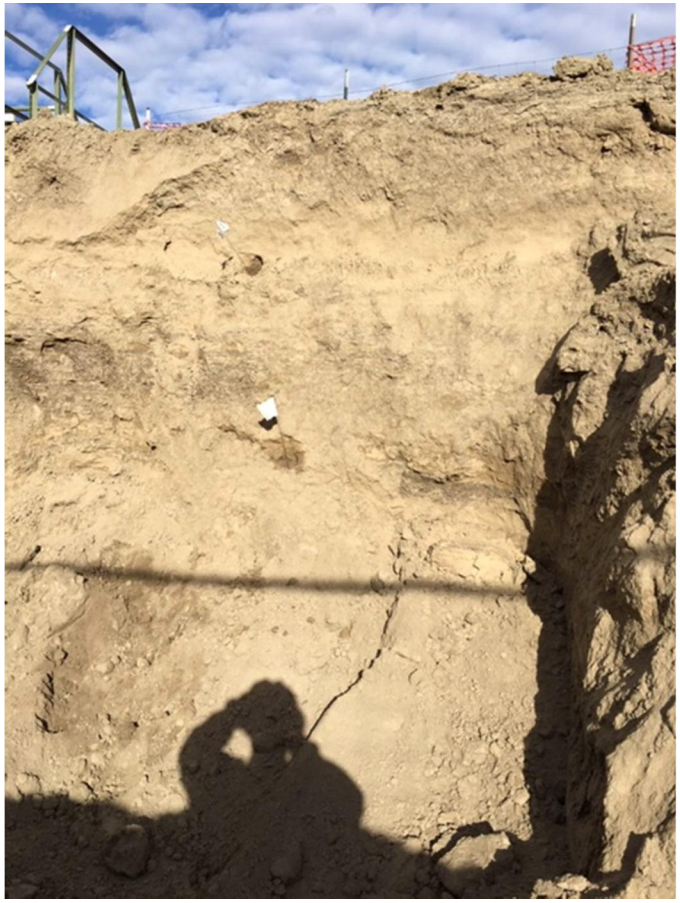
Section(s): 22, 23 **Township:** 31N **Range:** 11W

***UTM location was derived from PLSS - see Help**

Determination of water sources and significant watercourses within ½ mile of the lateral extent of the release

Photographs – 12/13/19 Sampling Event

East Half North Wall



West Half North Wall

Base

Photographs – 12/13/19 Sampling Event

East Half South Wall

West Half South Wall

Photographs – 12/13/19 Sampling Event

East Wall

West Wall

Topographic/Aerial Maps

Summary of events

- ~12 bbls of condensate was released on 11/4/2019
  - Tank was inspected and coated
  - ~320 yards of contaminated soil was disposed at IEI
  - ~320 yards of clean soil was brought in from Four Corners Materials
  - Final size of excavation is 19’x23’x10.5’deep
- Confirmation sampling occurred on 12/13/2019 at 2:30pm
  - Kurt performed sampling

Jennifer Deal

From: Jennifer Deal
Sent: Wednesday, December 11, 2019 2:36 PM
To: cory.smith@state.nm.us
Cc: Jeremy Brooks; Chad Perkins; Kurt Hoekstra
Subject: Confirmation Sampling - Calloway 3M

Good afternoon,

Hilcorp Energy is providing 48 hour notice of confirmation sampling to occur at the Calloway 3M on Friday, December 13th at 2:30pm. Please let me know if you have any questions.

Thank you,

Jennifer Deal
Environmental Specialist
Hilcorp Energy – L48 West
jdeal@hilcorp.com
Office: (505) 324-5128
Cell: 505-801-6517

From: OCDOnline@state.nm.us [mailto:OCDOnline@state.nm.us]
Sent: Wednesday, November 20, 2019 10:44 AM
To: Jennifer Deal <jdeal@hilcorp.com>
Subject: [EXTERNAL] New Mexico OCD Application Submission was Approved by the OCD

The Oil Conservation Division (OCD) has approved the application PO: TVPOX-191107-C-1410.
The original application was submitted by Jennifer Deal for HILCORP ENERGY COMPANY.

The user added the additional comment:

> "NCS1932438454 CALLOWAY #003M @ 30-045-33090 General Incident Information Edit Site Name: CALLOWAY #003M Well: [30-045-33090] CALLOWAY #003M Facility: Operator: [372171] HILCORP ENERGY COMPANY Status: Closure Not Approved Type: Oil Release District: Aztec Severity: Surface Owner: Private County: San Juan (45) Incident Location: G-20-31N-11W Lot: 0 FNL 0 FEL Lat/Long: 36.8865738,-107.9755554 NAD83 ".

If you are concerned about receiving this email or have any other questions,
please feel free to contact our Santa Fe OCD office.

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

December 19, 2019

HilCorp-Farmington, NM

Sample Delivery Group:	L1171307
Samples Received:	12/17/2019
Project Number:	
Description:	CALLOWAY #3M
Site:	CALLOWAY #3M
Report To:	Jennifer Deal 382 Road 3100 Aztec, NM 87401

Entire Report Reviewed By:

Olivia Studebaker
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 Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

TABLE OF CONTENTS

W. WALL L1171307-01 Solid

Collected by: K Hoekstra | Collected date/time: 12/13/19 13:45 | Received date/time: 12/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1397829	1	12/17/19 19:00	12/18/19 00:33	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1398026	1	12/17/19 11:13	12/18/19 18:58	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1398842	1	12/17/19 17:09	12/18/19 01:11	KME	Mt. Juliet, TN

N. WALL L1171307-02 Solid

Collected by: K Hoekstra | Collected date/time: 12/13/19 13:55 | Received date/time: 12/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1397829	1	12/17/19 19:00	12/18/19 01:02	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1398026	1	12/17/19 11:13	12/18/19 19:20	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1398842	1	12/17/19 17:09	12/18/19 01:24	KME	Mt. Juliet, TN

S. WALL L1171307-03 Solid

Collected by: K Hoekstra | Collected date/time: 12/13/19 14:00 | Received date/time: 12/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1397829	1	12/17/19 19:00	12/18/19 01:11	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1398026	1	12/17/19 11:13	12/18/19 19:43	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1398842	1	12/17/19 17:09	12/18/19 01:37	KME	Mt. Juliet, TN

BASE L1171307-04 Solid

Collected by: K Hoekstra | Collected date/time: 12/13/19 14:05 | Received date/time: 12/17/19 08:45

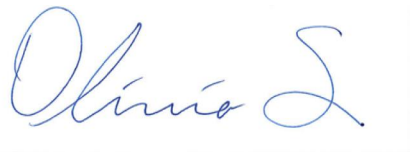
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1397829	1	12/17/19 19:00	12/18/19 01:21	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1398026	1	12/17/19 11:13	12/18/19 20:15	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1398842	1	12/17/19 17:09	12/18/19 01:49	KME	Mt. Juliet, TN

E. WALL L1171307-05 Solid

Collected by: K Hoekstra | Collected date/time: 12/13/19 14:15 | Received date/time: 12/17/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1397829	1	12/17/19 19:00	12/18/19 01:30	LBR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1398026	1	12/17/19 11:13	12/18/19 20:37	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1398842	1	12/17/19 17:09	12/18/19 02:02	KME	Mt. Juliet, TN

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.



Olivia Studebaker
Project Manager

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	1	12/18/2019 00:33	WG1397829

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.000639		0.000500	1	12/18/2019 18:58	WG1398026
Toluene	ND		0.00500	1	12/18/2019 18:58	WG1398026
Ethylbenzene	ND		0.000500	1	12/18/2019 18:58	WG1398026
Total Xylene	ND		0.00150	1	12/18/2019 18:58	WG1398026
TPH (GC/FID) Low Fraction	ND		0.100	1	12/18/2019 18:58	WG1398026
(S) a,a,a-Trifluorotoluene(FID)	*104*		*77.0-120*		*12/18/2019 18:58*	WG1398026
(S) a,a,a-Trifluorotoluene(PID)	*98.6*		*72.0-128*		*12/18/2019 18:58*	WG1398026

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	12/18/2019 01:11	WG1398842
C28-C40 Oil Range	ND		4.00	1	12/18/2019 01:11	WG1398842
(S) o-Terphenyl	*63.7*		*18.0-148*		*12/18/2019 01:11*	WG1398842

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	1	12/18/2019 01:02	WG1397829

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.00291		0.000500	1	12/18/2019 19:20	WG1398026
Toluene	0.00856		0.00500	1	12/18/2019 19:20	WG1398026
Ethylbenzene	0.000717		0.000500	1	12/18/2019 19:20	WG1398026
Total Xylene	0.00966		0.00150	1	12/18/2019 19:20	WG1398026
TPH (GC/FID) Low Fraction	0.157	B	0.100	1	12/18/2019 19:20	WG1398026
(S) a,a,a-Trifluorotoluene(FID)	*103*		*77.0-120*		*12/18/2019 19:20*	WG1398026
(S) a,a,a-Trifluorotoluene(PID)	*99.5*		*72.0-128*		*12/18/2019 19:20*	WG1398026

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	12/18/2019 01:24	WG1398842
C28-C40 Oil Range	ND		4.00	1	12/18/2019 01:24	WG1398842
(S) o-Terphenyl	*50.5*		*18.0-148*		*12/18/2019 01:24*	WG1398842

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	1	12/18/2019 01:11	WG1397829

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.000837		0.000500	1	12/18/2019 19:43	WG1398026
Toluene	ND		0.00500	1	12/18/2019 19:43	WG1398026
Ethylbenzene	ND		0.000500	1	12/18/2019 19:43	WG1398026
Total Xylene	ND		0.00150	1	12/18/2019 19:43	WG1398026
TPH (GC/FID) Low Fraction	ND		0.100	1	12/18/2019 19:43	WG1398026
(S) a,a,a-Trifluorotoluene(FID)	*104*		*77.0-120*		*12/18/2019 19:43*	WG1398026
(S) a,a,a-Trifluorotoluene(PID)	*100*		*72.0-128*		*12/18/2019 19:43*	WG1398026

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	12/18/2019 01:37	WG1398842
C28-C40 Oil Range	ND		4.00	1	12/18/2019 01:37	WG1398842
(S) o-Terphenyl	*61.5*		*18.0-148*		*12/18/2019 01:37*	WG1398842

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	ND		10.0	1	12/18/2019 01:21	WG1397829

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	0.000806		0.000500	1	12/18/2019 20:15	WG1398026
Toluene	ND		0.00500	1	12/18/2019 20:15	WG1398026
Ethylbenzene	ND		0.000500	1	12/18/2019 20:15	WG1398026
Total Xylene	ND		0.00150	1	12/18/2019 20:15	WG1398026
TPH (GC/FID) Low Fraction	ND		0.100	1	12/18/2019 20:15	WG1398026
(S) a,a,a-Trifluorotoluene(FID)	*104*		*77.0-120*		*12/18/2019 20:15*	WG1398026
(S) a,a,a-Trifluorotoluene(PID)	*98.2*		*72.0-128*		*12/18/2019 20:15*	WG1398026

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	12/18/2019 01:49	WG1398842
C28-C40 Oil Range	ND		4.00	1	12/18/2019 01:49	WG1398842
(S) o-Terphenyl	*60.1*		*18.0-148*		*12/18/2019 01:49*	WG1398842

E. WALL
Collected date/time: 12/13/19 14:15

Wet Chemistry by Method 300.0

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	22.3	B	10.0	1	12/18/2019 01:30	WG1397829

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Benzene	ND		0.000500	1	12/18/2019 20:37	WG1398026
Toluene	ND		0.00500	1	12/18/2019 20:37	WG1398026
Ethylbenzene	0.000550		0.000500	1	12/18/2019 20:37	WG1398026
Total Xylene	0.00268		0.00150	1	12/18/2019 20:37	WG1398026
TPH (GC/FID) Low Fraction	ND		0.100	1	12/18/2019 20:37	WG1398026
(S) a,a,a-Trifluorotoluene(FID)	*104*		*77.0-120*		*12/18/2019 20:37*	WG1398026
(S) a,a,a-Trifluorotoluene(PID)	*99.9*		*72.0-128*		*12/18/2019 20:37*	WG1398026

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	ND		4.00	1	12/18/2019 02:02	WG1398842
C28-C40 Oil Range	ND		4.00	1	12/18/2019 02:02	WG1398842
(S) o-Terphenyl	*61.7*		*18.0-148*		*12/18/2019 02:02*	WG1398842

Method Blank (MB)

(MB) R3483479-1 12/17/19 20:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	3.25	J	0.795	10.0

L1170899-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1170899-14 12/17/19 21:51 • (DUP) R3483479-3 12/17/19 22:01

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	12.6	12.9	1	2.29		20

L1171094-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1171094-04 12/17/19 22:39 • (DUP) R3483479-4 12/17/19 23:07

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	13.5	12.9	1	4.52		20

Laboratory Control Sample (LCS)

(LCS) R3483479-2 12/17/19 20:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	200	99.9	90.0-110	

L1171094-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1171094-07 12/17/19 23:36 • (MS) R3483479-5 12/17/19 23:45 • (MSD) R3483479-6 12/17/19 23:55

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 %
Chloride	500	3.72	498	497	98.9	98.6	1	80.0-120			0.331	20

Method Blank (MB)

(MB) R3483729-3 12/18/19 12:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	U		0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
TPH (GC/FID) Low Fraction	0.0598	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*101*			*72.0-128*

Laboratory Control Sample (LCS)

(LCS) R3483729-1 12/18/19 10:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0561	112	76.0-121	
Toluene	0.0500	0.0555	111	80.0-120	
Ethylbenzene	0.0500	0.0534	107	80.0-124	
Total Xylene	0.150	0.152	101	37.0-160	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*102*	*72.0-128*	

Laboratory Control Sample (LCS)

(LCS) R3483729-2 12/18/19 11:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.26	114	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*107*	*72.0-128*	

L1171307-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1171307-02 12/18/19 19:20 • (MS) R3483729-4 12/18/19 20:59 • (MSD) R3483729-5 12/18/19 21:21

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 %
Benzene	0.0500	0.00291	0.0347	0.0314	63.6	57.0	1	10.0-155			9.98	32
Toluene	0.0500	0.00856	0.0374	0.0359	57.7	54.7	1	10.0-160			4.09	34
Ethylbenzene	0.0500	0.000717	0.0288	0.0212	56.2	41.0	1	10.0-160			30.4	32
Total Xylene	0.150	0.00966	0.0832	0.0697	49.0	40.0	1	10.0-160			17.7	32
(S) a,a,a-Trifluorotoluene(FID)					*103*	*103*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*99.9*	*98.6*		*72.0-128*				

Method Blank (MB)

(MB) R3483682-1 12/17/19 22:28

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	1.13	J	0.274	4.00
(S) o-Terphenyl	*68.2*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3483682-2 12/17/19 22:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	34.0	68.0	50.0-150	
(S) o-Terphenyl			*56.0*	*18.0-148*	

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.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

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.
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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

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	LAO00356
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

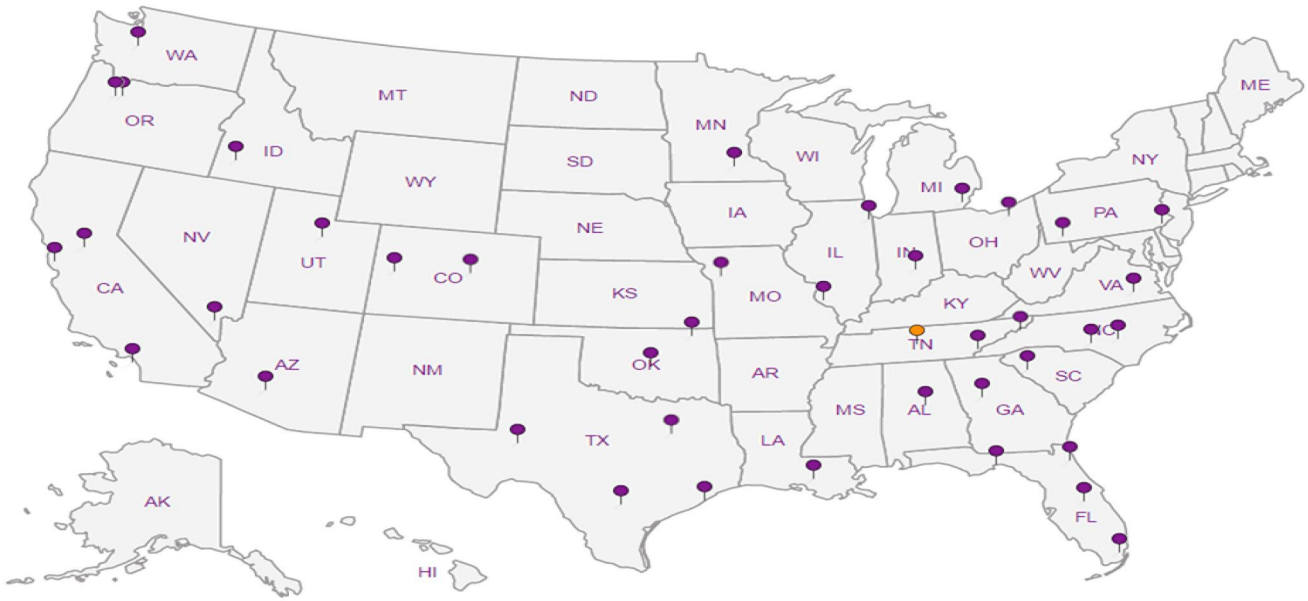
Third Party Federal Accreditations

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.



Billing Information: ATTN: Jennifer Deal

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Jennifer Deal

Email To: jdeal@hilcorp.com; khoekstra@hilcorp

Project Description: Calloway # 3M

City/State Collected: Aztec, NM

Phone: 505-324-5128
Fax:

Client Project #

Lab Project #

L# 171307

Table # G031

Collected by (print): K Hoekstra

Site/Facility ID # Calloway # 3M

P.O. #

Acctnum: HILCORANM
Template:
Prelogin:
TSR:
PB:

Collected by (signature): Kurt Hoekstra

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
X Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH - 8015 - DRO, GRO, MRO	BTEX 8021	Chloride 300.0	Remarks	Sample # (lab only)
W. Wall	Comp	SS		12-13	1:45	1	X	X	X		-01
N Wall	Comp	SS		12-13	1:55	1	X	X	X		02
S Wall	Comp	SS		12-13	2:00	1	X	X	X		03
Base	Comp	SS		12-13	2:05	1	X	X	X		04
E Wall	Comp	SS		12-13	2:15	1	X	X	X		05

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 4794 8841 5887

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

RAD SCREEN: <0.5 mR/hr

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Kurt Hoekstra	12-16-19	8:10			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.5+4 °C 0.4+0.4 Bottles Received: 5	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12/17/19 Time: 8:45	Hold: Condition: NCF / OK