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	NCS1912055883
District RP	
Facility ID	
Application ID	

Release Notification

RCVD 6/27/19

Responsible Party

Responsible Party Hilcorp Energy Company	OGRID 372171
Contact Name Jennifer Deal	Contact Telephone 505-801-6517
Contact email jdeal@hilcorp.com	Incident # NCS1912055883
Contact mailing address 382 Road 3100, Aztec NM 87410	

Location of Release Source

Latitude 36.9806099 Longitude -108.1144028

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Stanolind Gas Com D 2	Site Type Gas Well
Date Release Discovered 4/29/19 2:00pm	API# *30-045-29775*

Unit Letter	Section	Township	Range	County
O	17	32N	12W	San Juan

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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 25	Volume Recovered (bbls) 20
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ 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 25 bbls of Produced water was released due to the Y-strainer to the transfer pump was plugged with coal fines and the relay to shut down the PC pump on high tank level was bad. Produced water soaked through earthen berm material and traveled approximately 60 yards off location down a small dray arroyo. Operations shut down the PC pump and cleaned out the Y-strainer and transfer pump was started to empty tank. 20 bbls of free standing produced water was recovered with a vac truck.

State of New Mexico
Oil Conservation Division

Incident ID	NCS1912055883
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?	>50ft (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	NCS1912055883
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: __6/11/2019_____

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

OCD Only

Received by: _____ Date**:** _____

State of New Mexico
Oil Conservation Division

Incident ID	NCS1912055883
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: 6/11/2019

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

OCD Only

Received by: OCD Date: 6/27/19

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: 7/16/19

Printed Name: Cory Title: Environmental Spec

Scaled Map

N


STANOLIND
GAS COM D 2
SE
187.52 ft
Red line shows area of spill and blue line shows where release travelled off location
Total: 187.52 ft
NAD83 LatLong (BLM)
Lat: 36.980803° N
Lon: 108.113219° W
Scale 1: 781
Go
0 30 60ft

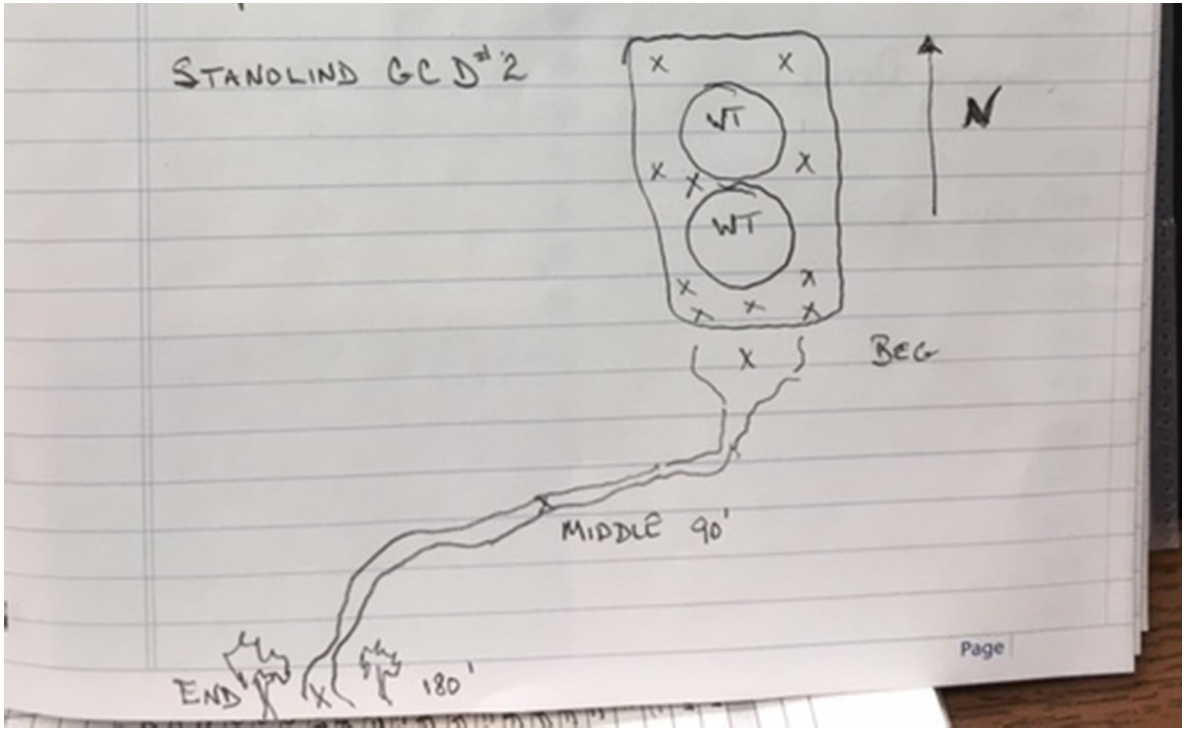
Photographs – 4/29/19 Initial Release

Photographs – 4/29/19 Initial Release

Stanolind Gas Com D 2 Release Info

- Initial release occurred on April 29
- Confirmation sampling occurred on May 16 at 1pm. Cory Smith with OCD was present while Kurt took samples
- No excavation occurred for this site as sample results were below NMOCD standards

Field Data



Data table of soil contaminant concentration data

SOIL ANALYTICAL RESULTS
STANOLIND GAS COM D 2
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)
N Inside Berm	5/16/2019		<0.0005	<0.005	<0.0005	<0.0015	<0.005	671	<0.1	<4.0	<4.0	<4.0	<4.0
S Inside Berm	5/16/2019		<0.0005	<0.005	<0.0005	<0.0015	<0.005	26	<0.1	<4.0	<4.0	<4.0	<4.0
Beginning of Spill	5/16/2019		<0.0005	<0.005	<0.0005	<0.0015	<0.005	227	<0.1	7.77	7.21	14.98	14.98
Middle 30'-60'-90'	5/16/2019		<0.0005	<0.005	<0.0005	<0.0015	<0.005	323	<0.1	<4.0	<4.0	<4.0	<4.0
End 120'-150'-180'	5/16/2019		<0.0005	<0.005	<0.0005	<0.0015	<0.005	125	<0.1	<4.0	<4.0	<4.0	<4.0
Background	5/16/2019		<0.0005	<0.005	<0.0005	<0.0015	<0.005	102	<0.1	19.00	19.30	38.30	38.30
NMOCD Standards		**NE**	**10**	**NE**	**NE**	**NE**	**50**	**10,000**	**NE**	**NE**	**NE**	**1,000**	**2,500**

Depth to water determination

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

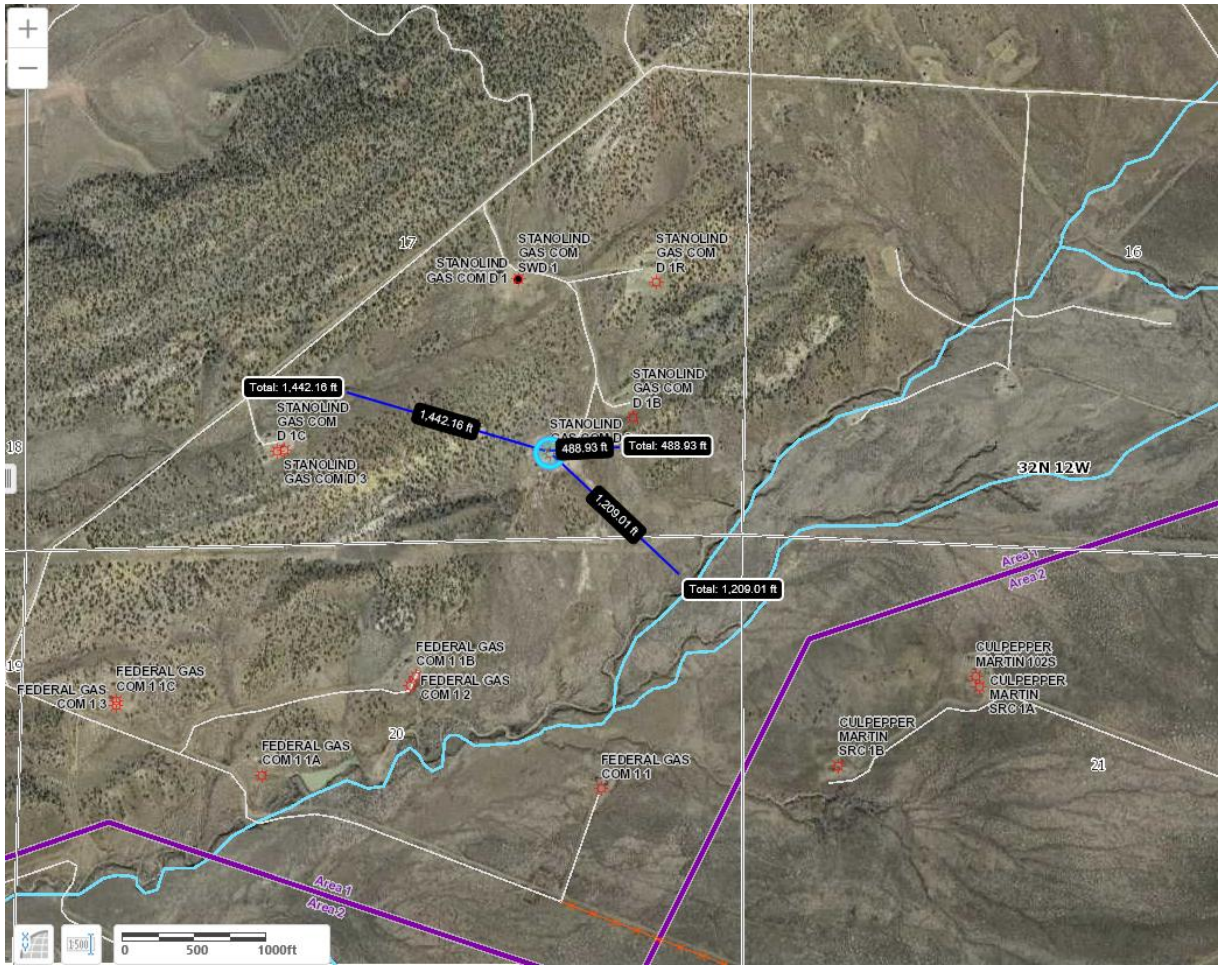
No records found.

PLSS Search:

Section(s): 16, 17, 20, 21 **Township:** 32N **Range:** 12W

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

N



Depth to water determination

Photographs – 5/16/2019 Sampling Event

End 150’ Sample

End 180’ Sample

Background Sample

Photographs – 5/16/2019 Sampling Event

Middle 60’ Sample

Middle 90’ Sample

End 120’ Sample

Photographs – 5/16/2019 Sampling Event

Beginning of Spill Sample

Beginning of Spill Sample

Middle 30’ Sample

Photographs – 5/16/2019 Sampling Event

West Side of Tanks

South Inside Berm Sample

Beginning of Spill Sample

Photographs – 5/16/2019 Sampling Event

Northeast Side of Tanks

Southwest side of Tank

West side Middle of Tanks

Topographic/Aerial Maps

N

Sampling Notification Email

Reply Reply All Forward IM

Mon 5/13/2019 4:00 PM

Jennifer Deal

Confirmation Sampling - Stanolind Gas Com D 2

To Griswold, Jim, EMNRD; Powell, Brandon, EMNRD; 'Adeloye, Abiodun'; whitney thomas (1thomas@blm.gov); cory.smith@state.nm.us

Cc Kurt Hoekstra; Mike Murphy; Ramon Florez

Good afternoon,

Hilcorp Energy is providing 48-hour notice for confirmation sampling to occur on Thursday, May 16 @ 1:00pm at the Stanolind Gas Com D 2. Please let me know if you have any questions.

Thanks,

Jennifer Deal
Environmental Specialist
Hilcorp Energy – L48 West
jdeal@hilcorp.com
382 Road 3100
Aztec, NM 87410
Office: (505) 324-5128
Cell: (505) 801-6517

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

May 29, 2019

HilCorp-Farmington, NM

Sample Delivery Group:	L1100546
Samples Received:	05/18/2019
Project Number:	STANOLIND GCD#2
Description:	STANOLIND GCD#2
Site:	STANOLIND GCD#2
Report To:	Jennifer Deal 382 Road 3100 Aztec, NM 87401

Entire Report Reviewed By:

Jason Romer
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.

N INSIDE BERM L1100546-01 Solid

Collected by: Kurt | Collected date/time: 05/16/19 13:10 | Received date/time: 05/18/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1284798	1	05/22/19 10:47	05/22/19 12:34	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1284784	1	05/21/19 17:24	05/23/19 21:30	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1286046	1	05/24/19 08:30	05/24/19 22:04	DMW	Mt. Juliet, TN

S INSIDE BERM L1100546-02 Solid

Collected by: Kurt | Collected date/time: 05/16/19 13:30 | Received date/time: 05/18/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1284798	1	05/22/19 10:47	05/22/19 12:59	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1284784	1	05/21/19 17:24	05/23/19 21:54	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1286046	1	05/24/19 08:30	05/24/19 22:18	DMW	Mt. Juliet, TN

BEGINNING OF SPILL L1100546-03 Solid

Collected by: Kurt | Collected date/time: 05/16/19 13:40 | Received date/time: 05/18/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1284798	1	05/22/19 10:47	05/22/19 13:08	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1284784	1	05/21/19 17:24	05/23/19 22:18	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1286046	1	05/24/19 08:30	05/24/19 23:11	DMW	Mt. Juliet, TN

MIDDLE 30'-60'-90' L1100546-04 Solid

Collected by: Kurt | Collected date/time: 05/16/19 13:50 | Received date/time: 05/18/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1284798	1	05/22/19 10:47	05/22/19 13:33	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015/8021	WG1284784	1	05/21/19 17:24	05/23/19 22:41	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1286046	1	05/24/19 08:30	05/24/19 22:31	DMW	Mt. Juliet, TN

END 120'-150'-180' L1100546-05 Solid

Collected by: Kurt | Collected date/time: 05/16/19 13:55 | Received date/time: 05/18/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1284798	1	05/22/19 10:47	05/22/19 13:42	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1284784	1	05/21/19 17:24	05/23/19 23:05	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1286345	1	05/21/19 17:24	05/28/19 16:11	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1286046	1	05/24/19 08:30	05/24/19 22:57	DMW	Mt. Juliet, TN

BACKGROUND L1100546-06 Solid

Collected by: Kurt | Collected date/time: 05/16/19 14:00 | Received date/time: 05/18/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1284798	1	05/22/19 10:47	05/22/19 13:50	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1284784	1	05/21/19 17:24	05/23/19 23:29	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021	WG1286345	1	05/21/19 17:24	05/28/19 16:35	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1286378	1	05/25/19 08:55	05/25/19 23:58	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.

Jason Romer
Project Manager

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	671	J3 J6	10.0	1	05/22/2019 12:34	WG1284798

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	05/23/2019 21:30	WG1284784
Toluene	ND		0.00500	1	05/23/2019 21:30	WG1284784
Ethylbenzene	ND		0.000500	1	05/23/2019 21:30	WG1284784
Total Xylene	ND		0.00150	1	05/23/2019 21:30	WG1284784
TPH (GC/FID) Low Fraction	ND		0.100	1	05/23/2019 21:30	WG1284784
(S) a,a,a-Trifluorotoluene(FID)	*97.5*		*77.0-120*		*05/23/2019 21:30*	WG1284784
(S) a,a,a-Trifluorotoluene(PID)	*101*		*72.0-128*		*05/23/2019 21:30*	WG1284784

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	05/24/2019 22:04	WG1286046
C28-C40 Oil Range	ND		4.00	1	05/24/2019 22:04	WG1286046
(S) o-Terphenyl	*51.6*		*18.0-148*		*05/24/2019 22:04*	WG1286046

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	26.0		10.0	1	05/22/2019 12:59	WG1284798

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	05/23/2019 21:54	WG1284784
Toluene	ND		0.00500	1	05/23/2019 21:54	WG1284784
Ethylbenzene	ND		0.000500	1	05/23/2019 21:54	WG1284784
Total Xylene	ND		0.00150	1	05/23/2019 21:54	WG1284784
TPH (GC/FID) Low Fraction	ND		0.100	1	05/23/2019 21:54	WG1284784
(S) a,a,a-Trifluorotoluene(FID)	*97.3*		*77.0-120*		*05/23/2019 21:54*	WG1284784
(S) a,a,a-Trifluorotoluene(PID)	*101*		*72.0-128*		*05/23/2019 21:54*	WG1284784

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.00	1	05/24/2019 22:18	WG1286046
C28-C40 Oil Range	ND		4.00	1	05/24/2019 22:18	WG1286046
(S) o-Terphenyl	*44.3*		*18.0-148*		*05/24/2019 22:18*	WG1286046

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	227		10.0	1	05/22/2019 13:08	WG1284798

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	05/23/2019 22:18	WG1284784
Toluene	ND		0.00500	1	05/23/2019 22:18	WG1284784
Ethylbenzene	ND		0.000500	1	05/23/2019 22:18	WG1284784
Total Xylene	ND		0.00150	1	05/23/2019 22:18	WG1284784
TPH (GC/FID) Low Fraction	ND		0.100	1	05/23/2019 22:18	WG1284784
(S) a,a,a-Trifluorotoluene(FID)	*97.8*		*77.0-120*		*05/23/2019 22:18*	WG1284784
(S) a,a,a-Trifluorotoluene(PID)	*102*		*72.0-128*		*05/23/2019 22:18*	WG1284784

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	7.77		4.00	1	05/24/2019 23:11	WG1286046
C28-C40 Oil Range	7.21		4.00	1	05/24/2019 23:11	WG1286046
(S) o-Terphenyl	*61.9*		*18.0-148*		*05/24/2019 23:11*	WG1286046

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	323		10.0	1	05/22/2019 13:33	WG1284798

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	05/23/2019 22:41	WG1284784
Toluene	ND		0.00500	1	05/23/2019 22:41	WG1284784
Ethylbenzene	ND		0.000500	1	05/23/2019 22:41	WG1284784
Total Xylene	ND		0.00150	1	05/23/2019 22:41	WG1284784
TPH (GC/FID) Low Fraction	ND		0.100	1	05/23/2019 22:41	WG1284784
(S) a,a,a-Trifluorotoluene(FID)	*97.4*		*77.0-120*		*05/23/2019 22:41*	WG1284784
(S) a,a,a-Trifluorotoluene(PID)	*99.8*		*72.0-128*		*05/23/2019 22:41*	WG1284784

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.00	1	05/24/2019 22:31	WG1286046
C28-C40 Oil Range	ND		4.00	1	05/24/2019 22:31	WG1286046
(S) o-Terphenyl	*58.0*		*18.0-148*		*05/24/2019 22:31*	WG1286046

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Chloride	125		10.0	1	05/22/2019 13:42	WG1284798

Volatile Organic Compounds (GC) by Method 8015/8021

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Benzene	ND		0.000500	1	05/28/2019 16:11	WG1286345
Toluene	ND		0.00500	1	05/28/2019 16:11	WG1286345
Ethylbenzene	ND		0.000500	1	05/28/2019 16:11	WG1286345
Total Xylene	ND		0.00150	1	05/28/2019 16:11	WG1286345
TPH (GC/FID) Low Fraction	ND		0.100	1	05/23/2019 23:05	WG1284784
(S) a,a,a-Trifluorotoluene(FID)	*97.7*		*77.0-120*		*05/23/2019 23:05*	WG1284784
(S) a,a,a-Trifluorotoluene(FID)	*96.3*		*77.0-120*		*05/28/2019 16:11*	WG1286345
(S) a,a,a-Trifluorotoluene(PID)	*103*		*72.0-128*		*05/23/2019 23:05*	WG1284784
(S) a,a,a-Trifluorotoluene(PID)	*98.9*		*72.0-128*		*05/28/2019 16:11*	WG1286345

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
C10-C28 Diesel Range	ND		4.00	1	05/24/2019 22:57	WG1286046
C28-C40 Oil Range	ND		4.00	1	05/24/2019 22:57	WG1286046
(S) o-Terphenyl	*54.2*		*18.0-148*		*05/24/2019 22:57*	WG1286046

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Chloride	102		10.0	1	05/22/2019 13:50	WG1284798

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	05/28/2019 16:35	WG1286345
Toluene	ND		0.00500	1	05/28/2019 16:35	WG1286345
Ethylbenzene	ND		0.000500	1	05/28/2019 16:35	WG1286345
Total Xylene	ND		0.00150	1	05/28/2019 16:35	WG1286345
TPH (GC/FID) Low Fraction	ND		0.100	1	05/23/2019 23:29	WG1284784
(S) a,a,a-Trifluorotoluene(FID)	*97.1*		*77.0-120*		*05/23/2019 23:29*	WG1284784
(S) a,a,a-Trifluorotoluene(FID)	*96.3*		*77.0-120*		*05/28/2019 16:35*	WG1286345
(S) a,a,a-Trifluorotoluene(PID)	*101*		*72.0-128*		*05/23/2019 23:29*	WG1284784
(S) a,a,a-Trifluorotoluene(PID)	*99.9*		*72.0-128*		*05/28/2019 16:35*	WG1286345

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	19.0		4.00	1	05/25/2019 23:58	WG1286378
C28-C40 Oil Range	19.3		4.00	1	05/25/2019 23:58	WG1286378
(S) o-Terphenyl	*104*		*18.0-148*		*05/25/2019 23:58*	WG1286378

Method Blank (MB)

(MB) R3413727-1 05/22/19 11:43

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	2.57	J	0.795	10.0

L1100539-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1100539-01 05/22/19 12:17 • (DUP) R3413727-3 05/22/19 12:25

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1180	1280	5	7.56		15

Laboratory Control Sample (LCS)

(LCS) R3413727-2 05/22/19 11:52

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	202	101	80.0-120	

L1100546-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1100546-01 05/22/19 12:34 • (MS) R3413727-4 05/22/19 12:42 • (MSD) R3413727-5 05/22/19 12:51

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	671	1060	1260	77.9	117	1	80.0-120	E J6	E J3	16.8	15

Method Blank (MB)

(MB) R3414742-2 05/23/19 12:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	0.000176	J	0.000120	0.000500
Toluene	0.000702	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) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*104*			*72.0-128*

Laboratory Control Sample (LCS)

(LCS) R3414742-1 05/23/19 11:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0456	91.3	76.0-121	
Toluene	0.0500	0.0467	93.4	80.0-120	
Ethylbenzene	0.0500	0.0496	99.2	80.0-124	
Total Xylene	0.150	0.147	98.0	37.0-160	
(S) a,a,a-Trifluorotoluene(FID)			*97.8*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*101*	*72.0-128*	

Laboratory Control Sample (LCS)

(LCS) R3414742-3 05/23/19 14:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.52	100	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*108*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*111*	*72.0-128*	

L1100478-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1100478-01 05/23/19 19:32 • (MS) R3414742-4 05/23/19 15:09 • (MSD) R3414742-5 05/23/19 15:33

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	0.0413	0.798	1.08	59.4	81.4	25.5	10.0-155			29.9	32
Toluene	0.0500	0.213	1.00	1.32	62.0	86.7	25.5	10.0-160			27.1	34
Ethylbenzene	0.0500	0.0474	0.980	1.30	73.1	98.6	25.5	10.0-160			28.5	32
Total Xylene	0.150	0.597	3.18	4.20	67.5	94.2	25.5	10.0-160	J6	J3	27.7	32
(S) a,a,a-Trifluorotoluene(FID)					*102*	*99.7*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*104*	*102*		*72.0-128*				

L1100478-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1100478-01 05/23/19 19:32 • (MS) R3414742-6 05/23/19 15:57 • (MSD) R3414742-7 05/23/19 16:21

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	14.4	129	130	81.6	82.3	25.5	10.0-151			0.772	28
(S) a,a,a-Trifluorotoluene(FID)					*107*	*107*		*77.0-120*				
(S) a,a,a-Trifluorotoluene(PID)					*109*	*108*		*72.0-128*				

Method Blank (MB)

(MB) R3415571-3 05/28/19 12:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000120	0.000500
Toluene	0.000345	J	0.000150	0.00500
Ethylbenzene	U		0.000110	0.000500
Total Xylene	U		0.000460	0.00150
(S) a,a,a-Trifluorotoluene(FID)	*98.0*			*77.0-120*
(S) a,a,a-Trifluorotoluene(PID)	*101*			*72.0-128*

Laboratory Control Sample (LCS)

(LCS) R3415571-1 05/28/19 10:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0440	88.1	76.0-121	
Toluene	0.0500	0.0466	93.1	80.0-120	
Ethylbenzene	0.0500	0.0485	96.9	80.0-124	
Total Xylene	0.150	0.142	94.5	37.0-160	
(S) a,a,a-Trifluorotoluene(FID)			*96.1*	*77.0-120*	
(S) a,a,a-Trifluorotoluene(PID)			*99.8*	*72.0-128*	

Method Blank (MB)

(MB) R3414838-1 05/24/19 14:08

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	*55.3*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3414838-2 05/24/19 14:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	37.0	74.0	50.0-150	
(S) o-Terphenyl			*59.9*	*18.0-148*	

L1100545-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1100545-07 05/25/19 19:40 • (MS) R3415061-1 05/25/19 19:54 • (MSD) R3415061-2 05/25/19 20:08

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 %
C10-C28 Diesel Range	50.0	ND	37.9	38.5	75.8	77.0	4	50.0-150			1.57	20
(S) o-Terphenyl					*57.6*	*59.7*		*18.0-148*				

Sample Narrative:

OS: Dilution due to matrix impact during extract concentration procedure

Method Blank (MB)

(MB) R3415097-1 05/25/19 22:25

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	1.14	J	0.274	4.00
(S) o-Terphenyl	*91.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3415097-2 05/25/19 22:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	50.6	101	50.0-150	
(S) o-Terphenyl			*109*	*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.

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
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
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.

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

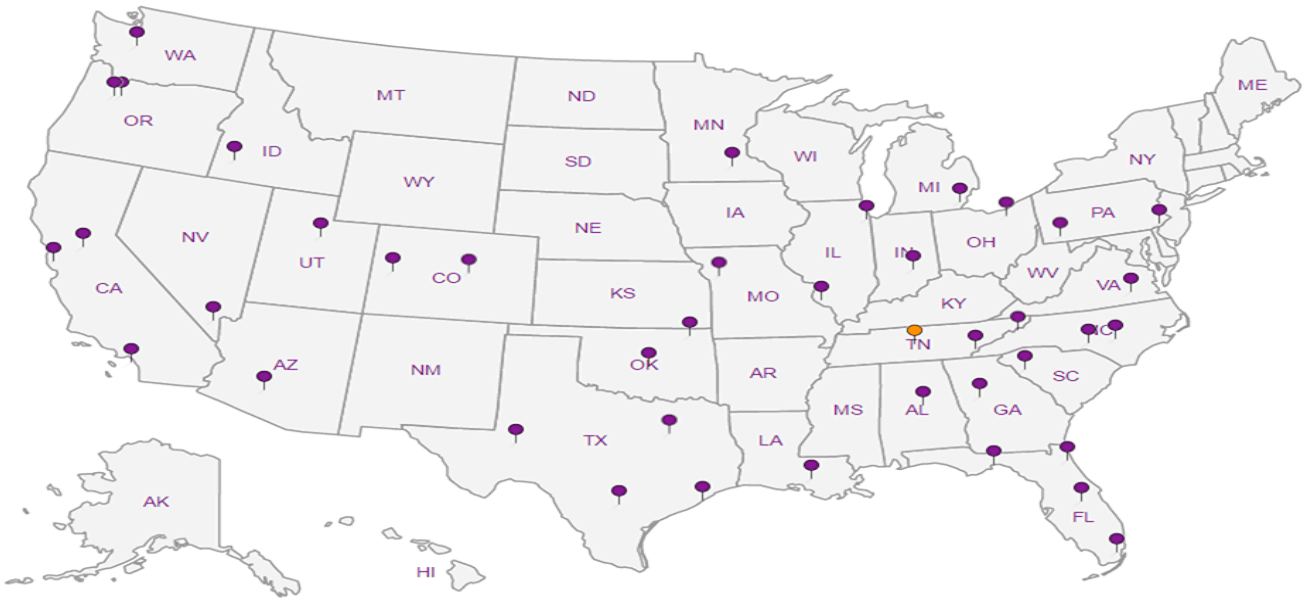
Third Party Federal Accreditations

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.



HilCorp-Farmington, NM
382 Road 3100
Aztec, NM 87401

Billing Information:

Pres Chk

khoekstra@hilcorp.com

Report to: JENNIFER DEAL

Email To: jdeal@hilcorp.com

Project Description:

City/State Collected:

Phone: 505-486-9543
Fax:

Client Project #

Lab Project #

Collected by (print): KURT

Site/Facility ID # STANOLIND GC D #2

P.O. #

Collected by (signature): Kurt Hoekstra

Immediately Packed on Ice N ___ Y X

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TPH 8015 - DRO, GRO, MRO	BTEX 8021	CHLORIDE
N. INSIDE BERM	Comp	Soil		5-16	1:10	1	X	X	X
S. INSIDE BERM	"	"		"	1:30	1	X	X	X
BEGINNING OF SPILL	"	"		"	1:40	1	X	X	X
MIDDLE 30'-60'-90'	"	"		"	1:50	1	X	X	X
END 120'-150'-180'	"	"		"	1:55	1	X	X	X
BACKGROUND	GRAB	"		"	2:00	1	X	X	X

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

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____

Flow _____ Other _____

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

Tracking # 7305 8947 4996

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Kurt Hoekstra	5-17-19	6:30	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / (No) HCL / MeoH TBR

Temp: 1.1 °C Bottles Received: 6

Date: 5/18/19 Time: 0830

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

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

Chain of Custody Page ___ of ___

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L# 1100546

F095

Acctnum: HILCORANM

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks	Sample # (lab only)
	-01
	-02
	-03
	-04
	-05
	-06