

## Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

RECEIVED 10/15/2014  
REM 8679  
SPILL 200413936  
FACILITY 301186  
DOC 2142138

**Client Sample ID: IRELAND 14-32TR TOP OF PIT**

**Lab Sample ID: 280-60392-1**

**Date Collected: 09/24/14 09:39**

**Matrix: Solid**

**Date Received: 09/25/14 10:00**

### Method: 20B - Sodium Adsorption Ratio - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	8.9		1.2		No Unit		10/02/14 16:30	10/05/14 14:04	10

### Method: 6020 - Total Metals by ICP-MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.5		0.10		mg/Kg	☼	09/29/14 09:00	09/29/14 17:19	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	10		0.10		%			09/26/14 13:12	1

### General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	8.49		0.100		SU			10/01/14 16:48	1
Specific Conductance	120	B	2.0		umhos/cm			10/01/14 14:23	1

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-60392-1

**Client Sample ID: IRELAND 14-32TR BOTTOM OF PIT**

**Lab Sample ID: 280-60392-2**

**Date Collected: 09/24/14 09:43**

**Matrix: Solid**

**Date Received: 09/25/14 10:00**

**Percent Solids: 90.2**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		5.8		ug/Kg	☼	09/26/14 16:00	09/27/14 00:35	1
Ethylbenzene	ND		5.8		ug/Kg	☼	09/26/14 16:00	09/27/14 00:35	1
Toluene	ND		5.8		ug/Kg	☼	09/26/14 16:00	09/27/14 00:35	1
Xylenes, Total	ND		5.8		ug/Kg	☼	09/26/14 16:00	09/27/14 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		58 - 140	09/26/14 16:00	09/27/14 00:35	1
Toluene-d8 (Surr)	93		80 - 126	09/26/14 16:00	09/27/14 00:35	1
4-Bromofluorobenzene (Surr)	97		76 - 127	09/26/14 16:00	09/27/14 00:35	1
Dibromofluoromethane (Surr)	96		75 - 121	09/26/14 16:00	09/27/14 00:35	1

## Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		1.3		mg/Kg	☼	10/03/14 14:53	10/07/14 09:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	87		77 - 123	10/03/14 14:53	10/07/14 09:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	19		4.4		mg/Kg	☼	09/29/14 15:35	10/02/14 11:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	72		49 - 115	09/29/14 15:35	10/02/14 11:04	1

## Method: 20B - Sodium Adsorption Ratio - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium Adsorption Ratio	5.5		1.2		No Unit	—	10/02/14 16:30	10/05/14 14:07	10

## Method: 6010B - Total Metals

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	140		5.4		mg/Kg	☼	09/29/14 09:00	10/01/14 14:14	5
Boron	ND		54		mg/Kg	☼	09/29/14 09:00	10/01/14 14:14	5
Cadmium	ND		2.7		mg/Kg	☼	09/29/14 09:00	10/01/14 14:14	5
Calcium	5700		270		mg/Kg	☼	09/29/14 09:00	10/01/14 14:14	5
Magnesium	3100		110		mg/Kg	☼	09/29/14 09:00	10/01/14 14:14	5
Molybdenum	ND		11		mg/Kg	☼	09/29/14 09:00	10/01/14 14:14	5
Silver	ND	*	5.4		mg/Kg	☼	09/29/14 09:00	10/01/14 14:14	5
Sodium	ND		2700		mg/Kg	☼	09/29/14 09:00	10/07/14 12:18	5

## Method: 6020 - Total Metals by ICP-MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0		0.098		mg/Kg	☼	09/29/14 09:00	09/29/14 17:23	1
Chromium	11		0.20		mg/Kg	☼	09/29/14 09:00	09/29/14 17:23	1
Copper	21		0.25		mg/Kg	☼	09/29/14 09:00	09/29/14 17:23	1
Lead	8.7		0.098		mg/Kg	☼	09/29/14 09:00	09/29/14 17:23	1
Nickel	12		0.15		mg/Kg	☼	09/29/14 09:00	09/29/14 17:23	1
Selenium	0.34		0.20		mg/Kg	☼	09/29/14 09:00	09/29/14 17:23	1
Zinc	37		0.98		mg/Kg	☼	09/29/14 09:00	09/29/14 17:23	1

TestAmerica Denver

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-60392-1

**Client Sample ID: IRELAND 14-32TR BOTTOM OF PIT**

**Lab Sample ID: 280-60392-2**

Date Collected: 09/24/14 09:43

Matrix: Solid

Date Received: 09/25/14 10:00

Percent Solids: 90.2

## Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		23		ug/Kg	☼	10/07/14 14:05	10/07/14 18:33	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.8		0.10		%	—		09/26/14 13:12	1

## General Chemistry - Soluble

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH adj. to 25 deg C	9.14		0.100		SU	—		10/01/14 16:48	1
Specific Conductance	59	B	2.0		umhos/cm			10/01/14 14:23	1

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-60392-1

**Client Sample ID: IRELAND 14-32TR NATIVE SOUTH**

**Lab Sample ID: 280-60392-3**

Date Collected: 09/24/14 09:45

Matrix: Solid

Date Received: 09/25/14 10:00

Percent Solids: 92.9

## Method: 6020 - Total Metals by ICP-MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.8		0.11		mg/Kg	☼	09/29/14 09:00	09/29/14 17:51	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.1		0.10		%			09/26/14 13:12	1

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-60392-1

**Client Sample ID: IRELAND 14-32TR NATIVE WEST**

**Lab Sample ID: 280-60392-4**

Date Collected: 09/24/14 09:48

Matrix: Solid

Date Received: 09/25/14 10:00

Percent Solids: 95.0

## Method: 6020 - Total Metals by ICP-MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.090		mg/Kg	☆	09/29/14 09:00	09/29/14 17:55	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.0		0.10		%			09/26/14 13:12	1

# Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-60392-1

**Client Sample ID: IRELAND 14-32TR NATIVE NORTH**

**Lab Sample ID: 280-60392-5**

Date Collected: 09/24/14 09:52

Matrix: Solid

Date Received: 09/25/14 10:00

Percent Solids: 93.3

## Method: 6020 - Total Metals by ICP-MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4		0.096		mg/Kg	☆	09/29/14 09:00	09/29/14 17:59	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.7		0.10		%			09/26/14 13:12	1

## Client Sample Results

Client: Pioneer Natural Resources USA, Inc.  
Project/Site: Soil Testing Suite

TestAmerica Job ID: 280-60392-1

**Client Sample ID: IRELAND 14-32TR NATIVE EAST**

**Lab Sample ID: 280-60392-6**

Date Collected: 09/24/14 09:54

Matrix: Solid

Date Received: 09/25/14 10:00

Percent Solids: 91.2

### Method: 6020 - Total Metals by ICP-MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.6		0.098		mg/Kg	☆	09/29/14 09:00	09/29/14 18:03	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	8.8		0.10		%			09/26/14 13:12	1