thatDistrict 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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **ConocoPhillips Company**	Contact **Ashley Maxwell**
Address **3401 E. 30th St., Farmington, NM 87402**	Telephone No. **505-324-5169**
Facility Name: Pioneer Pipeline (P1-2-1 Pipeline)	Facility Type: Pipeline

Surface Owner: Federal	Mineral Owner: Federal	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	21	28N	11W					San Juan County

Latitude 36.650883° N **Longitude -108.006233° W**

RCVD NOV 21 '12
OIL CONS. DIV.
DIST. 3

NATURE OF RELEASE

Type of Release: Gas, produced water, hydrocarbon	Volume of Release – 30 MCF 2 BBLs Produced Water 1 BBL Hydrocarbon	Volume Recovered – 198 yds^3
Source of Release: Pipeline	Date and Hour of Occurrence 2/12/2012 @ 5:00PM	Date and Hour of Discovery – 2/14/2012 @ 12:30PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Brandon Powell – NMOCD 2/15/2012 Mark Kelly – BLM FFO 2/15/2012	
By Whom? Ashley Maxwell	Date and Hour	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. 30 MCF, 2 BBLs Produced Water, 1 BBL Hydrocarbon	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken
Leak was detected by a third party. The pipeline was isolated from the gathering system. Removed as much as possible affected surface soil out of the wash.

Describe Area Affected and Cleanup Action Taken.*Affected area has had a spill assessment conducted and the area impacted will be excavated and confirmation sampled. The tank will be replaced.
Excavation occurred and resulted in approximately 198 yds^3 of soil being removed. Laboratory analytical results showed the base of the excavation to have exceeded the regulatory TPH standard set forth in NMOCD Guidelines for Remediation of Leaks, Spills and Release. The reasonable extents of excavation had been reached at the base of the excavation due to sandstone. The application of KMnO4 and approval to back fill was granted by Brandon Powell, OCD, on February 29, 2012 based on depth to ground water.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: **Ashley Maxwell**	Approved by Environmental Specialist: Jonathan Kelly
Title: **Field Environmental Specialist**	Approval Date: 11/30/2012 Expiration Date:
E-mail Address: **ashley.p.wethington@conocophillips.com**	Conditions of Approval: Attached ☐
Date: **November 20, 2012** Phone: **505-324-5169**	

* Attach Additional Sheets If Necessary

nJK 1233552656

envirotech

March 29, 2012 Project Number 92115-2096

Ms. Shelly Cowden
ConocoPhillips
3401 East 30th Street
Farmington, New Mexico 87401

Phone: (505) 324-5140
Cell: (505) 320-0699

RE: CONFIRMATION SAMPLING REPORT FOR THE PIONEER PIPELINE NEAR THE LUCERNE C #1 WELL SITE, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Cowden:

Enclosed please find the *Confirmation Sampling Report* detailing confirmation sampling activities conducted at the Pioneer Pipeline near the Lucerne C #1 well site located in Section 21, Township 28 North, Range 11 West, San Juan County, New Mexico.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,
ENVIROTECH, INC.

FOR

Noel Burciaga
Environmental Field Technician
nburciaga@envirotech-inc.com

Enclosures: *Confirmation Sampling Report*

Cc: Client File Number 92115

CONFIRMATION SAMPLING REPORT

LOCATION:
CONOCOPHILLIPS
PIONEER PIPELINE
NEAR THE LUCERNE C #1 WELL SITE
SECTION 21, TOWNSHIP 28 NORTH, RANGE 11 WEST
SAN JUAN COUNTY, NEW MEXICO

CONTRACTED BY:
CONOCOPHILLIPS
MS. SHELLY COWDEN
3401 EAST 30TH STREET
FARMINGTON, NEW MEXICO 87401

PROJECT NUMBER 92115-2096
FEBRUARY 2012

CONOCOPHILLIPS
CONFIRMATION SAMPLING REPORT
PIONEER PIPELINE
NEAR THE LUCERNE C #1 WELL SITE
SECTION 21, TOWNSHIP 28 NORTH, RANGE 11 WEST
SAN JUAN COUNTY, NEW MEXICO

TABLE OF CONTENTS

INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by ConocoPhillips to provide confirmation sampling services for a pipeline leak located near the Lucerne C #1 well site in Section 21, Township 28 North, Range 11 West, San Juan County, New Mexico; see enclosed ***Figure 1, Vicinity Map***. Condensate was released from a leak in the Pioneer Pipeline near the above referenced location. Activities included sample collection and analysis, documentation and reporting.

ACTIVITIES PERFORMED

Upon Envirotech personnel's arrival on February 28, 2012, a brief site assessment was conducted. Because distance to surface water was less than 100 feet from the area of the release, the regulatory standards for the site were determined to be 100 parts per million (ppm) total petroleum hydrocarbons (TPH) and 100 ppm organic vapors, pursuant to New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases.

Prior to the arrival of Envirotech personnel, M&M Trucking had excavated the affected area to extents of approximately 30 feet by 20 feet by five (5) feet deep. The excavation was divided into two (2) sections for sampling purposes. Four (4) samples were collected from Section 1 of the excavation. One (1) sample was collected from each of the north, south, and east walls, and one (1) sample was collected from the bottom. Four (4) samples were collected from Section 2 of the excavation. One (1) sample was collected from each of the north, south, and west walls, and one (1) sample was collected from the bottom; see ***Figure 2, Site Map*** for sample locations. All samples were analyzed in the field for TPH using USEPA Method 418.1 and for organic vapors using a photoionization detector (PID). The Section 1 Bottom, Section 2 North Wall, Section 2 West Wall and Section 2 Bottom samples returned results above the regulatory standards for both TPH and organic vapors. The remaining samples returned results below the regulatory standards for all constituents analyzed.

Prior to Envirotech personnel's return on February 29, 2012, M&M Trucking had further excavated the north wall, west wall and bottom of the affected area to extents of approximately 33 feet by 22 feet by six (6) to seven (7) feet deep, where sandstone was encountered on the bottom. Two (2) composite samples were then collected from the excavation. One (1) sample was collected from the Section 2 north wall and one (1) sample was collected from the Section 2 west wall. The samples were analyzed in the field for TPH using USEPA Method 418.1 and for organic vapors using a PID. The Section 2 north wall sample returned results below the regulatory standards for all constituents analyzed. The Section 2 west wall sample returned results above the regulatory standards for both TPH and organic vapors. Additionally, the Section 1 bottom and Section 2 bottom samples collected February 28, 2012, and the Section 2 west wall sample collected February 29, 2012, were transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015 and for benzene and total BTEX using USEPA Method 8021. The Section 2 west wall sample returned results below regulatory standards for all constituents analyzed. The Section 1 bottom

and Section 2 bottom samples returned results above the regulatory standard for TPH, but below the regulatory standards for benzene and total BTEX. However, the reasonable extents of excavation had been reached on the bottom of the excavation due to sandstone.

Envirotech personnel returned to the site on March 5, 2012, and applied a potassium permanganate solution to the bottom of the excavation to help aid in the remediation of any remaining contamination. The site was then backfilled, with permission from Brandon Powell with the NMOCD.

SUMMARY AND CONCLUSIONS

Confirmation sampling activities were performed for a pipeline leak located near the Lucerne C #1 well site in Section 21, Township 28 North, Range 11 West, San Juan County, New Mexico. Envirotech, Inc. recommends no further action in regards to this incident.

STATEMENT OF LIMITATIONS

Envirotech, Inc. has completed confirmation sampling activities for a pipeline leak located near the Lucerne C #1 well site in Section 21, Township 28 North, Range 11 West, San Juan County, New Mexico. The work and services provided by Envirotech, Inc. were in accordance with New Mexico Oil Conservation Division standards. All observations and conclusions provided here are based on the information and current site conditions found at the site of the incident.

The undersigned has conducted this service at the above referenced site; this work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry and hydrogeology.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,

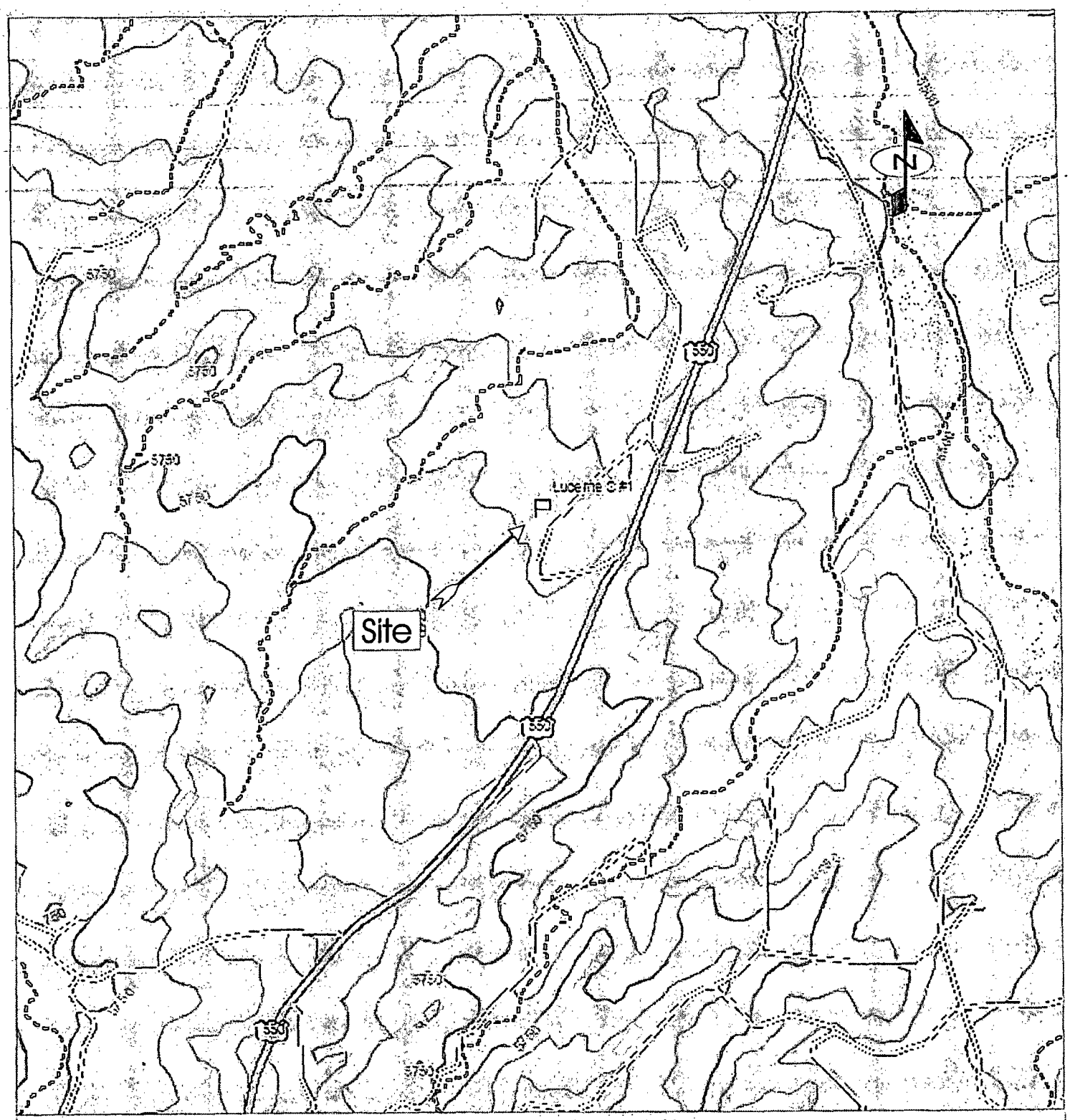
ENVIROTECH, INC.

Noel Burciaga
Environmental Field Technician
nburciaga@envirotech-inc.com

Reviewed by:

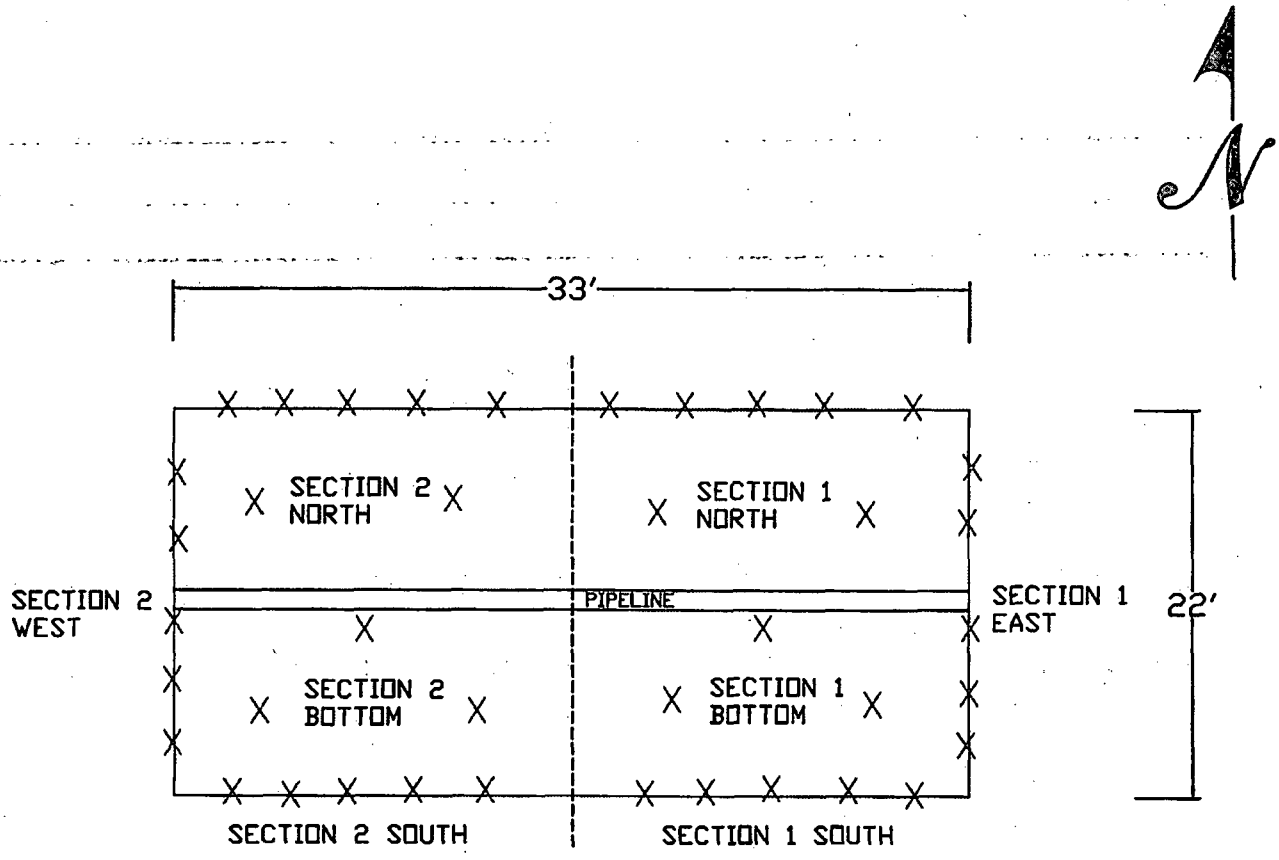
Toni McKnight, EIT
Environmental Project Manager
bwilliamson@envirotech-inc.com

FIGURES



Source: Bloomfield, New Mexico 87413 7.5 Minute U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

ConocoPhillips Confirmation Sampling Report Pioneer Pipeline near Lucerne C #1 San Juan County, New Mexico	envirotech ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 Farmington, New Mexico 87401 505.632.0615	Vicinity Map Figure 1	
PROJECT No 92115-2096 | Date Drawn: 3/6/12		DRAWN BY: Torie Thompson	PROJECT MANAGER: Greg Crabtree



LUCERNE C #1
WELL SITE
APPROX 500 FEET

LEGEND

X SOIL SAMPLE LOCATION

EXCAVATION

SITE MAP
CONOCOPHILLIPS
PIONEER PIPELINE LEAK NEAR LUCERNE C #1
SEC. 21, TWN. 28N, RNG. 11W
SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS	FIGURE NO. 2	REV
PROJECT NO92115-2096		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	BWW	2-29-12	BASE DRWN		

ENVIRONMENTAL SCIENTISTS & ENGINEERS
ENVIROTECH
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615

TABLES

Table 1, Summary of Analytical Results
ConocoPhillips
Pioneer Pipeline near the Lucerne C #1 (hBr)
Confirmation Sampling Report
Project Number 92115-2096

Date	Sample Description	Sample Number	PID OV (ppm)	USEPA Method 418.1 TPH (ppm)	USEPA Method 8015 TPH (ppm)	Chlorides (ppm)	USEPA Method 8021	
							Benzene (ppm)	BTEX (ppm)
NA	New Mexico Oil Conservation Division Standards	NA	100	100	100	NA	10	50
2/28/2012	Section 1 North Wall	1	26	68	NS	NS	NS	NS
2/28/2012	Section 1 South Wall	2	ND	60	NS	NS	NS	NS
2/28/2012	Section 1 East Wall	3	ND	4	NS	NS	NS	NS
2/28/2012	Section 1 Bottom	4	**935**	**5770**	**219**	NS	ND	2.4
2/28/2012	Section 2 North Wall	5	**1650**	**628**	NS	NS	NS	NS
2/28/2012	Section 2 South Wall	6	3.8	40	NS	NS	NS	NS
2/28/2012	Section 2 West Wall	7	**2600**	**1820**	NS	NS	NS	NS
2/28/2012	Section 2 Bottom	8	**984**	**9160**	**2910**	NS	0.547	35.7
2/29/2012	Section 2 North Wall	1	0.8	32	NS	NS	NS	NS
2/29/2012	Section 2 West Wall	2	**138**	**648**	25.7	NS	ND	0.24

*Values in **BOLD** above regulatory limits

*NS - Parameter not sampled *ND - Parameter not detected

APPENDIX A

Analytical Results

envirotech

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	1	Date Reported:	3/9/2012
Sample ID:	Section 1 North Wall	Date Sampled:	2/28/2012
Sample Matrix:	Soil	Date Analyzed:	2/28/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**68**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Noel Burciaga
Printed

Review

Toni McKnight, EIT
Printed

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envirotech-inc.com
info@envirotech-inc.com

envirotech

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	2	Date Reported:	3/9/2012
Sample ID:	Section 1 South Wall	Date Sampled:	2/28/2012
Sample Matrix:	Soil	Date Analyzed:	2/28/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**60**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	3	Date Reported:	3/9/2012
Sample ID:	Section 1 East Wall	Date Sampled:	2/28/2012
Sample Matrix:	Soil	Date Analyzed:	2/28/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**ND**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

FOR

Analyst

Noel Burciaga

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	4	Date Reported:	3/9/2012
Sample ID:	Section 1 Bottom	Date Sampled:	2/28/2012
Sample Matrix:	Soil	Date Analyzed:	2/28/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**5,770**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	5	Date Reported:	3/9/2012
Sample ID:	Section 2 North Wall	Date Sampled:	2/28/2012
Sample Matrix:	Soil	Date Analyzed:	2/28/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**628**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

FOR
Analyst

Noel Burciaga
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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	6	Date Reported:	3/9/2012
Sample ID:	Section 2 South Wall	Date Sampled:	2/28/2012
Sample Matrix:	Soil	Date Analyzed:	2/28/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**40**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

FOR
Analyst

Noel Burciaga
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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	7	Date Reported:	3/9/2012
Sample ID:	Section 2 West Wall	Date Sampled:	2/28/2012
Sample Matrix:	Soil	Date Analyzed:	2/28/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**1,820**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Noel Burciaga
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Review

Toni McKnight, EIT
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info@envirotech-inc.com

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	8	Date Reported:	3/9/2012
Sample ID:	Section 2 Bottom	Date Sampled:	2/28/2012
Sample Matrix:	Soil	Date Analyzed:	2/28/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**9,160**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Noel Burciaga
Printed

Review

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CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 28-Feb-12

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	184
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst — Date: 3/9/2012

Noel Burciaga
Print Name

Review — Date: 3/9/2012

Toni McKnight, EIT
Print Name

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	1	Date Reported:	3/9/2012
Sample ID:	Section 2 North Wall	Date Sampled:	2/29/2012
Sample Matrix:	Soil	Date Analyzed:	2/29/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**32**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

FOR

Analyst

Noel Burciaga

Printed

Review

Toni McKnight, EIT

Printed

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envirotech

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	ConocoPhillips	Project #:	92115-2096
Sample No.:	2	Date Reported:	3/9/2012
Sample ID:	Section 2 West Wall	Date Sampled:	2/29/2012
Sample Matrix:	Soil	Date Analyzed:	2/29/2012
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**648**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Pioneer Pipeline (hBr)**

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Analyst

Noel Burciaga
Printed

Review

Toni McKnight, EIT
Printed

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envirotech

CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 29-Feb-12

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	200	195
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst

3/9/2012
Date

Noel Burciaga
Print Name

Review

3/9/2012
Date

Toni McKnight, EIT
Print Name

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips(hBr)	Project #:	92115-2096
Sample ID:	Section 2 West Wall	Date Reported:	03-01-12
Laboratory Number:	61247	Date Sampled:	02-29-12
Chain of Custody No:	13492	Date Received:	02-29-12
Sample Matrix:	Soil	Date Extracted:	02-29-12
Preservative:	Cool	Date Analyzed:	03-01-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**9.4**	**0.2**
Diesel Range (C10 - C28)	**16.3**	**0.1**
Total Petroleum Hydrocarbons	**25.7**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Confirmation Sampling/ Pioneer Pipeline**

Analyst

Review

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips(hBr)	Project #:	92115-2096
Sample ID:	Section 2 Bottom	Date Reported:	03-01-12
Laboratory Number:	61248	Date Sampled:	02-29-12
Chain of Custody No:	13492	Date Received:	02-29-12
Sample Matrix:	Soil	Date Extracted:	02-29-12
Preservative:	Cool	Date Analyzed:	03-01-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1,390**	**0.2**
Diesel Range (C10 - C28)	**1,520**	**0.1**
Total Petroleum Hydrocarbons	**2,910**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Confirmation Sampling/ Pioneer Pipeline**

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EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	ConocoPhillips(hBr)	Project #:	92115-2096
Sample ID:	Section 1 Bottom	Date Reported:	03-01-12
Laboratory Number:	61249	Date Sampled:	02-29-12
Chain of Custody No:	13492	Date Received:	02-29-12
Sample Matrix:	Soil	Date Extracted:	02-29-12
Preservative:	Cool	Date Analyzed:	03-01-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**74.4**	**0.2**
Diesel Range (C10 - C28)	**145**	**0.1**
Total Petroleum Hydrocarbons	**219**	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Confirmation Sampling/ Pioneer Pipeline**

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EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0301TCAL QA/QC	Date Reported:	03-01-12
Laboratory Number:	61241	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-01-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	03-01-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	03-01-12	9.9960E+02	1.0000E+03	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.00%**	**0 - 30%**
Diesel Range C10 - C28	**ND**	**ND**	**0.00%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**274**	**110%**	**75 - 125%**
Diesel Range C10 - C28	**ND**	**250**	**295**	**118%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 61241-61243, 61247-61249 and 61252-61253**

Analyst

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips(hBr)	Project #:	92115-2096
Sample ID:	Section 2 West Wall	Date Reported:	03-01-12
Laboratory Number:	61247	Date Sampled:	02-29-12
Chain of Custody:	13492	Date Received:	02-29-12
Sample Matrix:	Soil	Date Analyzed:	03-01-12
Preservative:	Cool	Date Extracted:	02-29-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.0**
Toluene	**46.1**	**10.0**
Ethylbenzene	**14.1**	**10.0**
p,m-Xylene	**145**	**10.0**
o-Xylene	**36.0**	**10.0**
Total BTEX	**240**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**84.1 %**
	1,4-difluorobenzene	**88.8 %**
	Bromochlorobenzene	**98.0 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846 USEPA, December 1996.

Comments: **Confirmation Sampling/ Pioneer Pipeline**

Analyst

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips(hBr)	Project #:	92115-2096
Sample ID:	Section 2 Bottom	Date Reported:	03-01-12
Laboratory Number:	61248	Date Sampled:	02-29-12
Chain of Custody:	13492	Date Received:	02-29-12
Sample Matrix:	Soil	Date Analyzed:	03-01-12
Preservative:	Cool	Date Extracted:	02-29-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**547**	**10.0**
Toluene	**11,100**	**10.0**
Ethylbenzene	**2,860**	**10.0**
p,m-Xylene	**15,500**	**10.0**
o-Xylene	**5,720**	**10.0**
Total BTEX	**35,700**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**101 %**
	1,4-difluorobenzene	**98.7 %**
	Bromochlorobenzene	**101 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846 USEPA, December 1996.

Comments: Confirmation Sampling/ Pioneer Pipeline

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips(hBr)	Project #:	92115-2096
Sample ID:	Section 1 Bottom	Date Reported:	03-01-12
Laboratory Number:	61249	Date Sampled:	02-29-12
Chain of Custody:	13492	Date Received:	02-29-12
Sample Matrix:	Soil	Date Analyzed:	03-01-12
Preservative:	Cool	Date Extracted:	02-29-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.0**
Toluene	**318**	**10.0**
Ethylbenzene	**137**	**10.0**
p,m-Xylene	**1,530**	**10.0**
o-Xylene	**414**	**10.0**
Total BTEX	**2,400**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**88.3 %**
	1,4-difluorobenzene	**100 %**
	Bromochlorobenzene	**100 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846 USEPA, December 1996.

Comments: **Confirmation Sampling/ Pioneer Pipeline**

Analyst

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0301BCAL QA/QC	Date Reported:	03-01-12
Laboratory Number:	61247	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-01-12
Condition:	N/A	Analysis:	BTEX
		Dilution:	10

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF: Accept. Range 0-15%	%Diff.	Blank Conc	Detect. Limit
Benzene	4.2920E-06	4.2920E-06	0.000	ND	1
Toluene	4.2510E-06	4.2510E-06	0.000	ND	1
Ethylbenzene	4.8924E-06	4.8924E-06	0.000	ND	1
p,m-Xylene	3.6589E-06	3.6589E-06	0.000	ND	1
o-Xylene	5.2765E-06	5.2765E-06	0.000	ND	1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	47.8	45.3	0.05	0 - 30%	10
Ethylbenzene	14.7	13.2	0.10	0 - 30%	10
p,m-Xylene	147	143	0.03	0 - 30%	10
o-Xylene	36.9	35.1	0.05	0 - 30%	10

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	500	485	97.0	39 - 150
Toluene	47.8	500	572	104	46 - 148
Ethylbenzene	14.7	500	516	100	32 - 160
p,m-Xylene	147	1000	1160	101	46 - 148
o-Xylene	36.9	500	543	101	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for Samples 61241-61243, 61247-61249 and 61252-61253**

Analyst

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CHAIN OF CUSTODY RECORD

13492 Rush

Client:	Project Name / Location:
Conoco (nBr)	Confirmation Sampling / Pioneer Pit inc
Email results to:	Sampler Name: Noel Burciaga
Client Phone No.:	Client No.: 92115-2096

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	Preservative Cool	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Section 2 west wall	2-29-12	1:55	41247	1-4 oz Jar			Cool	X	X												X	X
Section 2 Bottom	2-29-12	2:00	41248	4			"	X	X												X	X
Section B Bottom	2-29-12	2:00	41249	4			"	X	X												X	X

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	2-29-12	2:40		2.29.12	240
Relinquished by: (Signature)			Received by: (Signature)		

Sample Matrix

Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐ _____

☐ Sample(s) dropped off after hours to secure drop off area.

Rush

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