

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Noble Energy, Inc.	Contact Tyson Hutton	
Address 1600 Broadway, Suite 2200 Denver, CO 80202	Telephone No. 303.228.4238	
Facility Name Alamo 22-16	Facility Type Gas well and associated equipment	
Surface Owner Private	Mineral Owner Private	Lease No. Private

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	22	31N	13W	660	S	780	E	San Juan

Latitude **36.52.808** Longitude **108.11.088**

NATURE OF RELEASE

Type of Release Produced water	Volume of Release approx. 20bbbls	Volume Recovered 20bbbls
Source of Release Water line leak	Date and Hour of Occurrence 12/21/2010	Date and Hour of Discovery 12/21/2010, 12:00pm
Was Immediate Notice Given? Yes No x Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	ROAD JAN 7 '11


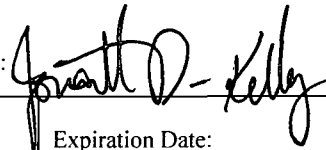
If a Watercourse was Impacted, Describe Fully.*
N/A

OIL CONS. DIV.
DIST. 3

Describe Cause of Problem and Remedial Action Taken.* **Water line developed a pinhole leak causing produced water to surface. Per NMOCD direction, Noble will collect two (2), 5-point composite samples from within the affected area for analysis of Chloride, TPH, and BTEX. Samples are scheduled to be collected on 1/6/11. Results will be submitted to NMOCD and additional remediation will be conducted if necessary.**

Describe Area Affected and Cleanup Action Taken.* **The affected soil was confined to within a 40 ft. radius of the leak extending from ground surface to approximately 3-4 ft below grade. Small dikes were built to contain the water. Standing water was collected via vacuum truck. The water transfer line was exposed via excavation and the leak was repaired.**

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: Tyson Hutton	Approved by District Supervisor: 	
Title: Environmental Specialist	Approval Date: 10/21/2014	Expiration Date:
E-mail Address: thutton@nobleenergyinc.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 1/5/2011	Phone: 303.228.4238	

* Attach Additional Sheets If Necessary

nJK 142943184



Jonathan D. Kelly
Compliance Officer
Oil Conservation Division
Energy, Minerals, & Natural Resources
1000 Rio Brazos, Aztec, NM 87410

RCVD SEP 23 '14
OIL CONS. DIV.
DIST. 3

Re: Alamo 22-16 Sample Results

Dear Mr. Kelly:

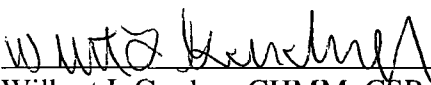
Attached is a copy of the sample results for Sand Rock Water Gathering Pipeline release which occurred on the Alamo 22-16 well site. The API number for the location is 30-035-32686. The location of the release was UL -P, Sec 22, T-31N, R-13W and the GPS coordinates are N 36.88008, W 108.18485

At the time of the event, the well site and gathering system were owned and operated by Noble Energy. Noble Energy contracted with Envirotech to provide site assessment and clean up services. In 2013 the site was acquired by Enervest Operating LLC

Based on the attached report from Envirotech, Enervest believes that this matter is now closed.

If you have any questions feel free to contact me at the telephone number listed below.

Thank you.


Wilbert L Gardner CHMM, CSP
HSE Supervisor

ENERVEST OPERATING, LLC.

2700 Farmington Ave. Bldg K., Ste 1 • Farmington, New Mexico 87401 • 505-325-0318 • Fax 505-325-0328



February 8, 2011

Project Number 04010-0028

Mr. Tyson Hutton
Noble Energy
1625 Broadway Suite 2200
Denver, Colorado 80202

Phone: (303) 228-4000

**RE: SPILL ASSESSMENT DOCUMENTATION FOR THE SANDROCK WATER GATHERING
PIPELINE, SAN JUAN COUNTY, NEW MEXICO**

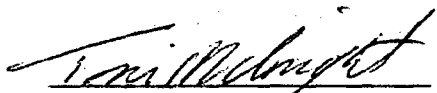
Dear Mr. Tyson Hutton,

Enclosed please find the site map and analytical results for spill assessment activities performed for a release of produced water from the Sandrock Water Gathering Pipeline located in Section 22, Township 31 North, Range 13 West, San Juan County, New Mexico. Upon Envirotech's arrival on January 18, 2011, a brief site assessment was conducted. Due to distance to surface water being less than 200 feet from the pipeline leak, the regulatory standard for the site was 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.

Two (2) five (5) point composite surface samples were collected from the area around the burst pipeline; see attached *Site Map*. One (1) composite sample was collected from the spill source and one (1) composite sample was collected from the flow path. The surface samples were then placed into separate four (4)-ounce glass jars, capped head space free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for TPH using USEPA Method 8015, for benzene and BTEX using USEPA Method 8021 and for chlorides. The samples returned results below regulatory standards for all constituents analyzed; see attached *Analytical Results*. Envirotech, Inc. recommends no further action in regards to this incident.

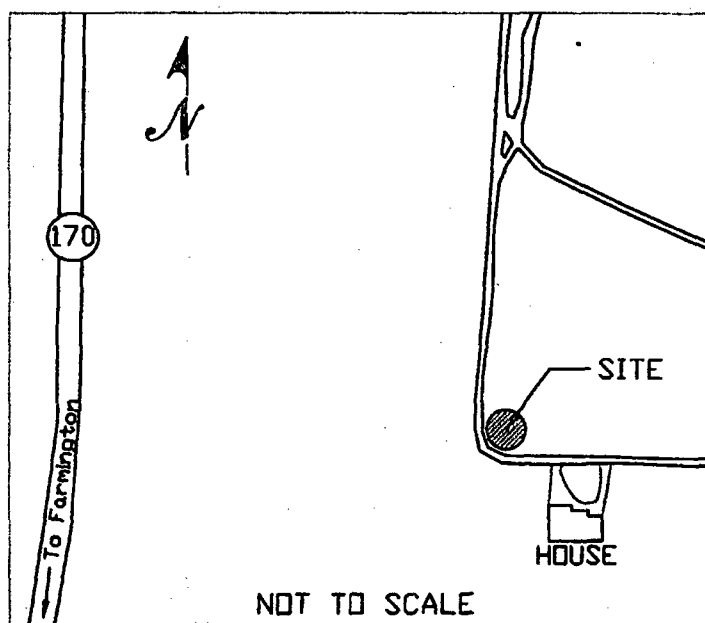
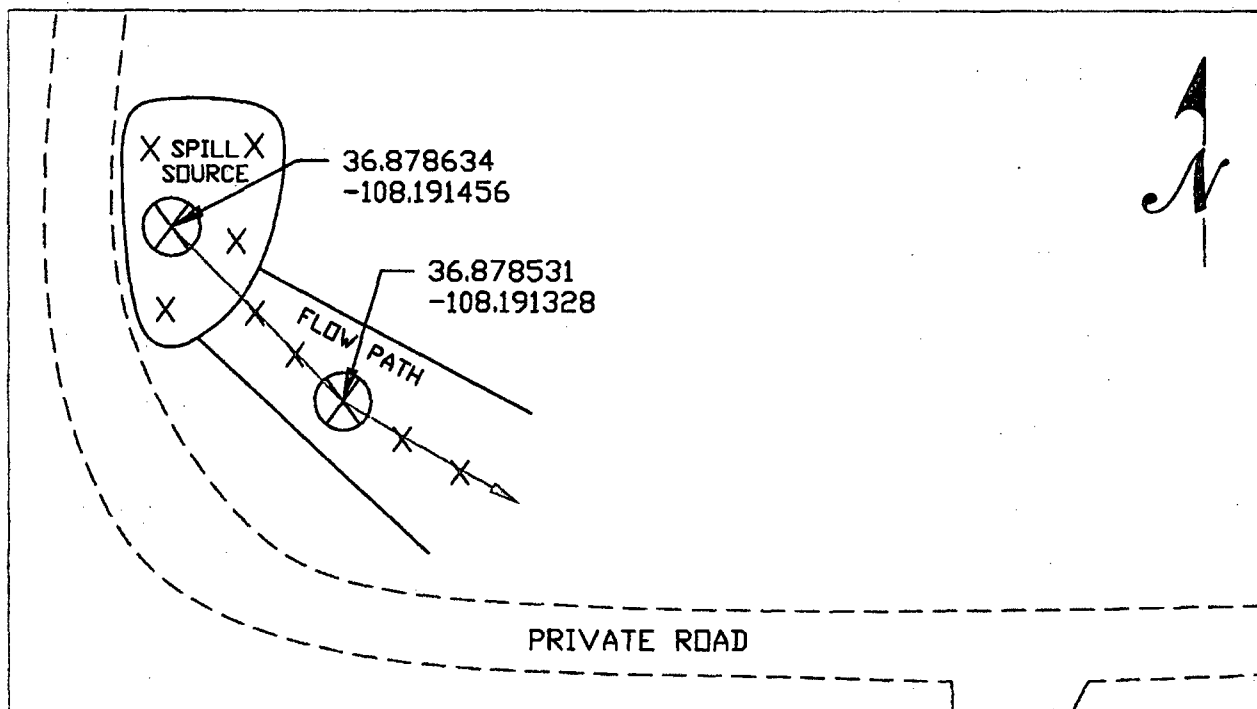
We appreciate the opportunity to be of service. If you have questions or require additional information, please contact our office at 505-632-0615.


Respectfully Submitted,
ENVIROTECH, INC.


Toni McKnight, EIT
Project Engineer
tmcknight@envirotech-inc.com

Enclosure(s): Analytical Results
Site Map

Cc: Client File 04010



NOBLE ENERGY Sandrock Water Gathering Pipeline Spill Assessment			
SCALE: NTS		FIGURE NO. 1	REV
PROJECT NO.04010-0028			
REVISIONS			
NO.	DATE	BY	DESCRIPTION
MAP DRWN	C Delgal	02/02/11	BASE DRWN
 envirotech			
5796 U.S. HIGHWAY 64, FARMINGTON NM 87401 505-632-0615			



**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**


Client:	Nobel Energy	Project #:	04010-0028
Sample ID:	Sample 2-Flow Path	Date Reported:	01-19-11
Laboratory Number:	57020	Date Sampled:	01-18-11
Chain of Custody No:	11025	Date Received:	01-18-11
Sample Matrix:	Soil	Date Extracted:	01-18-11
Preservative:	Cool	Date Analyzed:	01-19-11
Condition:	Intact	Analysis Requested:	8015 TPH

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

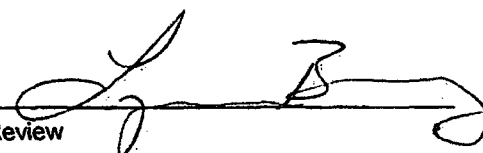
ND - Parameter not detected at the stated detection limit.

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

Comments: **Sand Rock Water Gathering Pipeline**



Analyst



Review



**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

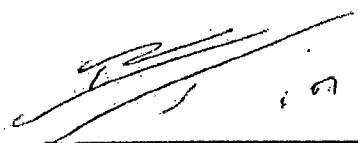
Client:	Nobel Energy	Project #:	04010-0028
Sample ID:	Sample 1-Source	Date Reported:	01-19-11
Laboratory Number:	57021	Date Sampled:	01-18-11
Chain of Custody No:	11025	Date Received:	01-18-11
Sample Matrix:	Soil	Date Extracted:	01-18-11
Preservative:	Cool	Date Analyzed:	01-19-11
Condition:	Intact	Analysis Requested:	8015 TPH

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

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: Sand Rock Water Gathering Pipeline



Analyst



Review

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-19-11 QA/QC	Date Reported:	01-19-11
Laboratory Number:	57022	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-19-11
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	01-19-11	9.9960E+002	1.0000E+003	0.04%	0 - 15%
Diesel Range C10 - C28	01-19-11	9.9960E+002	1.0000E+003	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

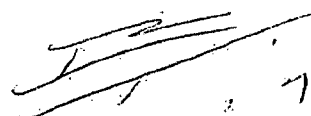
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	2,200	2,010	8.6%	0 - 30%
Diesel Range C10 - C28	291	271	6.6%	0 - 30%

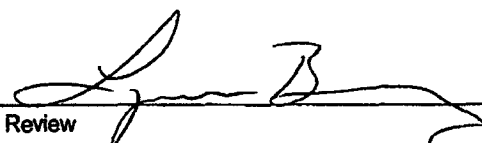
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	2,200	250	2,470	101%	75 - 125%
Diesel Range C10 - C28	291	250	544	101%	75 - 125%

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: QA/QC for Samples 57020-57027, 57030-57031


 Analyst


 Review

Client:	Nobel Energy	Project #:	04010-0028
Sample ID:	Sample 2-Flow Path	Date Reported:	01-20-11
Laboratory Number:	57020	Date Sampled:	01-18-11
Chain of Custody:	11025	Date Received:	01-18-11
Sample Matrix:	Soil	Date Analyzed:	01-20-11
Preservative:	Cool	Date Extracted:	01-18-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	4.4	0.9
Toluene	ND	1.0
Ethylbenzene	ND	1.0
p,m-Xylene	ND	1.2
o-Xylene	ND	0.9
Total BTEX	4.4	


ND - Parameter not detected at the stated detection limit.

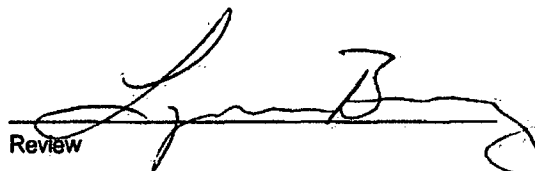
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	90.8 %
	Bromochlorobenzene	104 %

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: Sand Rock Water Gathering Pipeline


 Analyst


 Review

Client:	Nobel Energy	Project #:	04010-0028
Sample ID:	Sample 1-Source	Date Reported:	01-20-11
Laboratory Number:	57021	Date Sampled:	01-18-11
Chain of Custody:	11025	Date Received:	01-18-11
Sample Matrix:	Soil	Date Analyzed:	01-20-11
Preservative:	Cool	Date Extracted:	01-18-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	2.9	0.9
Toluene	ND	1.0
Ethylbenzene	ND	1.0
p,m-Xylene	ND	1.2
o-Xylene	ND	0.9
Total BTEX	2.9	


ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	91.3 %
	1,4-difluorobenzene	88.9 %
	Bromochlorobenzene	107 %

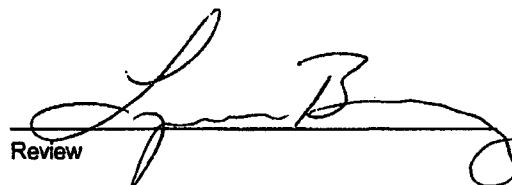
References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

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

Comments: Sand Rock Water Gathering Pipeline



 Analyst



 Review

Client:	N/A	Project #:	N/A
Sample ID:	0120BBL2 QA/QC	Date Reported:	01-20-11
Laboratory Number:	57037	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-20-11
Condition:	N/A	Analysis:	BTEX
		Dilution:	10

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff:	Blank Conc	Detect Limit
		Accept. Range 0 - 15%			
Benzene	1.2914E+005	1.2940E+005	0.2%	ND	0.1
Toluene	1.4329E+005	1.4358E+005	0.2%	ND	0.1
Ethylbenzene	1.2426E+005	1.2451E+005	0.2%	ND	0.1
p,m-Xylene	2.8140E+005	2.8196E+005	0.2%	ND	0.1
o-Xylene	1.1225E+005	1.1247E+005	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff:	Accept Range	Detect Limit
Benzene	ND	ND	0.0%	0 - 30%	0.9
Toluene	ND	ND	0.0%	0 - 30%	1.0
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.0
p,m-Xylene	ND	ND	0.0%	0 - 30%	1.2
o-Xylene	ND	ND	0.0%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	500	496	99.2%	39 - 150
Toluene	ND	500	490	97.9%	46 - 148
Ethylbenzene	ND	500	526	105%	32 - 160
p,m-Xylene	ND	1000	1,110	111%	46 - 148
o-Xylene	ND	500	506	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 57037, 27020-57021, 57030-57031

Analyst

Review

Client:	Nobel Energy	Project #:	04010-0028
Sample ID:	Sample 2-Flow Path	Date Reported:	01/19/11
Lab ID#:	57020	Date Sampled:	01/18/11
Sample Matrix:	Soil	Date Received:	01/18/11
Preservative:	Cool	Date Analyzed:	01/19/11
Condition:	Intact	Chain of Custody:	11025

Parameter	Concentration (mg/Kg)
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Total Chloride**40**

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1995

Comments: **Sand Rock Water Gathering Pipeline**



Analyst

Review



Client:	Nobel Energy	Project #:	04010-0028
Sample ID:	Sample 1 - Source	Date Reported:	01/19/11
Lab ID#:	57021	Date Sampled:	01/18/11
Sample Matrix:	Soil	Date Received:	01/18/11
Preservative:	Cool	Date Analyzed:	01/19/11
Condition:	Intact	Chain of Custody:	11025

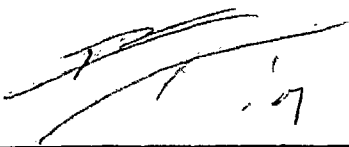
Parameter	Concentration (mg/Kg)
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Total Chloride

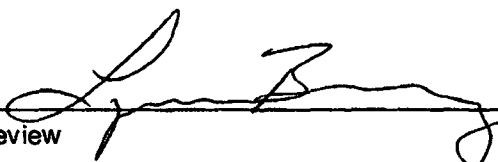
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Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1995

Comments: **Sand Rock Water Gathering Pipeline**



Analyst




Review

CHAIN OF CUSTODY RECORD

11025

Client: Nobel Energy			Project Name / Location: SANDROCK Water GATHERING PIPELINE			ANALYSIS / PARAMETERS														
Client Address:			Sampler Name: T. MCKNIGHT/E. CRAWFORD			<div style="display: flex; justify-content: space-between;"> <div> TPH (Method 8015) BTEX (Method 8021) VOC (Method 8260) RCRA 8 Metals Cation / Anion RCI TCLP with H/P PAH TPH (418.1) CHLORIDE </div> <div> Sample Cool Sample Intact </div> </div>														
Client Phone No.:			Client No.: 09010-0028																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE	Sample Cool	Sample Intact
SAMPLE 2 - FLOW PATH	1/18/11	12:30	57020	Soil Solid	1/4oz				✓	✓	✓							✓	✓	✓
SAMPLE 1 - SOURCE	1/18/11	12:30	57021	Soil Solid	1/4oz				✓	✓	✓							✓	✓	✓
				Soil Solid	Sludge Aqueous															
				Soil Solid	Sludge Aqueous															
				Soil Solid	Sludge Aqueous															
				Soil Solid	Sludge Aqueous															
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				Soil Solid	Sludge Aqueous															
Relinquished by: (Signature) <i>[Signature]</i>					Date 1/18/11	Time 13:30	Received by: (Signature) <i>[Signature]</i>					Date 1/18/11	Time 13:30							
Relinquished by: (Signature)							Received by: (Signature)													
Relinquished by: (Signature)							Received by: (Signature)													



envirotech
Analytical Laboratory

5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com