

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

30-039-07681

OPERATOR

☐ Initial Report

☒ Final Report

Name of Company	Burlington Resources, A Wholly Owned Subsidiary of COPC	Contact	Kelsi Harrington		
Address	3401 E. 30 <sup>th</sup> St., Farmington, NM 87402	Telephone No.	505-599-3403		
Facility Name	San Juan 29-7 Unit 11	Facility Type	Gas Well	API#	3003907681
Surface Owner	Federal	Mineral Owner	Federal	Lease No.	SF-078919

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	03	29N	07W	660'	South	660'	West	Rio Arriba

Latitude 36.74924° N Longitude -107.56446° W

NATURE OF RELEASE

Type of Release – Produced Water & Condensate	Volume of Release – 7 BBL (6.5 BBL PW & 0.5 BBL Condensate)	Volume Recovered – 0 BBL
Source of Release: Production Tank	Date and Hour of Occurrence unknown	Date and Hour of Discovery 7/22/10 12:00 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour –	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

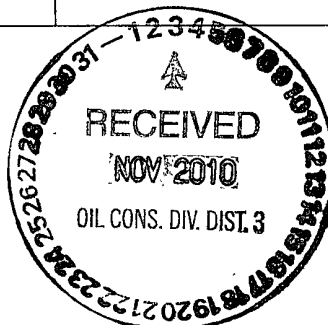
Describe Cause of Problem and Remedial Action Taken.\* On July 22, 2010, it was discovered that there was a leak at the production tank as a result equipment fatigue. Upon discovery, the well shut in and the tank contents removed.

Describe Area Affected and Cleanup Action Taken.\* All fluid was contained within the berm and no fluid was recovered. COPC has assessed the impacted area. Excavation and confirmation sampling occurred. Analytical results were below the regulatory standards set forth in the NMOCD Guidelines for Remediation of Leaks, Spills and Releases; therefore no further action is needed.

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: <u>Kelsi Harrington</u>	OIL CONSERVATION DIVISION	
Printed Name: Kelsi Harrington	Approved by District Supervisor: <u>[Signature]</u>	
Title: Environmental Consultant	Approval Date: <u>12/6/2010</u>	Expiration Date:
E-mail Address: <u>kelsi.g.harrington@conocophillips.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12/1/10 Phone: 505-599-3403		

\* Attach Additional Sheets If Necessary



n5K1133649889



September 3, 2010

Project No. 92115-1377  
92115-1383

Ms. Kelsi Harrington  
ConocoPhillips  
3401 East 30<sup>th</sup> Street  
Farmington, New Mexico 87401

Phone: (505) 599-3403  
Cell: (505) 320-2461

**RE: SPILL ASSESSMENT AND CONFIRMATION SAMPLING DOCUMENTATION FOR THE SAN JUAN 29-7 UNIT #11 (hBr), RIO ARriba COUNTY, NEW MEXICO**

Dear Ms. Harrington,

Enclosed please find the field notes and analytical results for spill assessment and confirmation sampling activities performed at the San Juan 29-7 Unit #11 (hBr) well site located in Section 3, Township 29N, Range 7W, Rio Arriba County, New Mexico. Upon arrival, a brief site assessment was conducted, and the regulatory standards for the site were determined to be 1000 parts per million (ppm) total petroleum hydrocarbons (TPH) and 100 ppm organic vapors due to a horizontal distance to surface water between 200 and 1000 feet, pursuant to New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases.

On July 29, 2010, four (4) composite samples were collected from the area around the leaking above-grade storage tank (AST); see attached *Field Notes*. One (1) sample was collected from the surface approximately one (1) foot from the leak. One (1) sample was collected one (1) foot below ground surface (BGS) at an angle under the AST. One (1) sample was collected three (3) feet BGS at an angle under the AST. One (1) sample was collected two (2) feet BGS at the perimeter of the area. The samples were analyzed in the field for TPH using USEPA Method 418.1 and for organic vapors using a photoionization detector (PID). The sample collected from the perimeter of the area returned results below the regulatory standards for both TPH and organic vapors. However, the samples collected from the surface near the leak and under the AST returned results above the regulatory standards for both TPH and organic vapors; therefore, excavation was recommended.

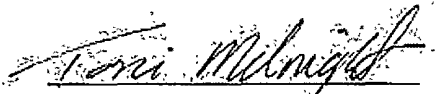
Prior to Envirotech's return on August 16, 2010, the area of the release had been excavated to extents of approximately 30 feet by 17 feet by four (4) feet deep where sandstone was encountered. Five (5) composite samples were collected from the excavation. One (1) sample was collected from each of the four (4) walls, and one (1) sample was collected from the sandstone bottom at four (4) feet BGS. The samples were analyzed in the field for TPH using USEPA Method 418.1 and for organic vapors using a photoionization detector (PID). The composite sample from the bottom of the excavation returned results above the regulatory standards for both TPH and organic vapors, and the samples from the walls returned results below the regulatory standards for both TPH and organic vapors; see attached *Field Notes*. The sample collected from the bottom of the excavation was then collected into a four (4)-ounce glass jar, capped headspace free, and 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 BTEX using USEPA Method 8021. The sample returned results below the regulatory standard for benzene but above the regulatory standards for BTEX and TPH; see attached ***Analytical Results***. However, because maximum reasonable extents of excavation were reached at sandstone at four (4) feet BGS, no further excavation was recommended.

On August 18, 2010, Envirotech, Inc. returned to the site to treat the excavation with potassium permanganate. Envirotech, Inc. recommends no further action in regards to this incident.

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

Respectfully Submitted,  
**ENVIROTECH, INC.**

  
Toni McKnight, EIT  
Staff Engineer  
[tmcknight@envirotech-inc.com](mailto:tmcknight@envirotech-inc.com)

Enclosure(s): Field Notes  
Analytical Results

Cc: Client File 92115

ml: COPE



Location No:

C.O.C. No:

# ELD REPORT: SPILL CLOSURE VERIFICATION

PAGE NO: 1 OF

DATE STARTED: 7/29/10

DATE FINISHED:

LOCATION: NAME: San Juan 29-7 WELL #: 11

AD/UNIT: M SEC: 3 TWP: 29N RNG: 7W PM: 141PM CNTY: PA ST: N.M.

FOOTAGE: 660'S & 660'W CONTRACTOR: XXXXXXXXXX

ENVIRONMENTAL

SPECIALIST: René

CAVATION APPROX: XX FT. X XX FT. X XX FT. DEEP CUBIC YARDAGE: XX

POSAL FACILITY: XXXXXXXXXX REMEDIATION METHOD: XXXXXXXXXX

IND USE: Oil Storage LEASE: STO 78919 LAND OWNER:

USE OF RELEASE: Prod Tank Leak MATERIAL RELEASED: Oil

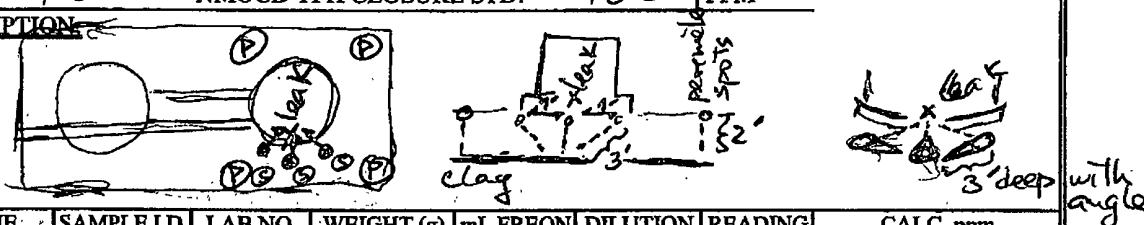
LOCATED APPROXIMATELY: 70 FT. NE FROM Wellhead

TH TO GROUNDWATER: 170' NEAREST WATER SOURCE: UA NEAREST SURFACE WATER: 250'

OCED RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 100 PPM

## LAND EXCAVATION DESCRIPTION

It was impossible to continue digging due to hard rock layer.

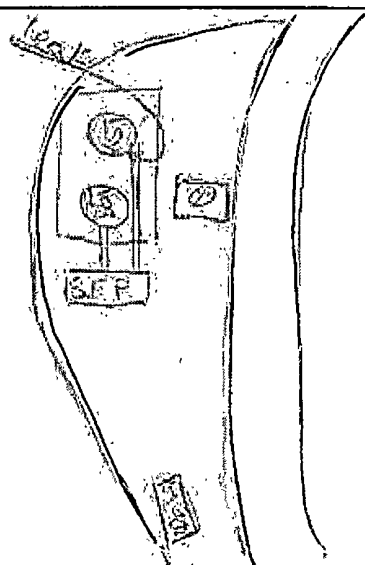


SAMPLE DESCRIPTION	TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. ppm
214	13:00	2005td					217	
Comp	13:20	Surf prod		5	20	x4	1890	7560
with angle under	13:25	Prod 1'					853	3412
prod tank	13:30	Prod 3'					1122	4488
at comp, 2' deep;	15:00	perimeter					36	144
no angle								

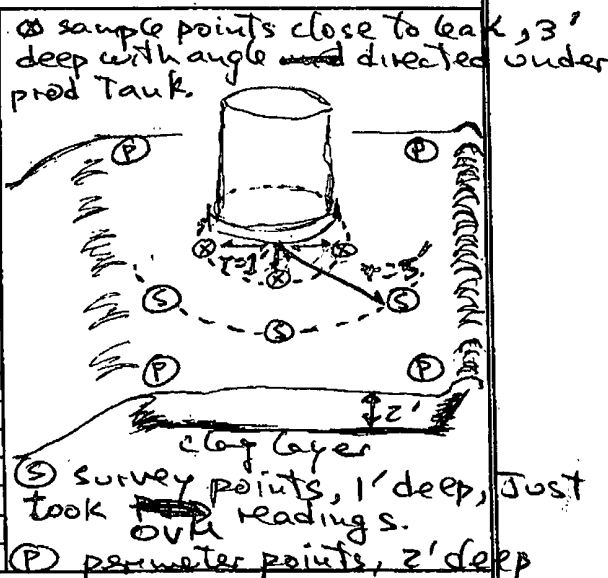
## SPILL PERIMETER

## OVM RESULTS

## SPILL PROFILE



SAMPLE ID	FIELD HEADSPACE PID (ppm)	
Surf tank	722	
Prod 1'	698	
Prod 3'	2230	
perimeter	12	
LAB SAMPLES		
SAMPLE ID	ANALYSIS	TIME



LEVEL NOTES: \_\_\_\_\_ CALLED OUT: \_\_\_\_\_ ONSITE: \_\_\_\_\_

ent: **COPC**



Location No:

C.O.C. No:

# ELD REPORT: SPILL CLOSURE VERIFICATION

PAGE NO: **1** OF **1**

ATION: NAME: **SAN JUAN 29-7** WELL #: **#11**  
 AD/UNIT: SEC: **3** TWP: **29N** RNG: **7W** PM: **NM** CNTY: **RA** ST: **NM**  
 U/FOOTAGE: **660' ECL - 660' FUL** CONTRACTOR: **MAM TRUCKING**

DATE STARTED: **Aug 16, 2010**  
 DATE FINISHED: **Aug 16, 2010**  
 ENVIRONMENTAL SPECIALIST: **TCM**

AVATION APPROX: **30** FT. X **17** FT. X **4** FT. DEEP CUBIC YARDAGE:

POSAL FACILITY: **FET** REMEDIATION METHOD: **LANDFARM**

ID USE: **FEI GRADING** LEASE: **SF 070919** LAND OWNER:

ISE OF RELEASE: **LEAKING AST** MATERIAL RELEASED: **CONDENSATE**

LOCATED APPROXIMATELY: **20** FT. **29** FROM Wellhead

TH TO GROUNDWATER: **170'** NEAREST WATER SOURCE: **7,000'** NEAREST SURFACE WATER: **250'**

CD RANKING SCORE: **10** NMOC D TPH CLOSURE STD: **1,000** PPM

## LAND EXCAVATION DESCRIPTION:

Lat: **N 36.749353** **4' to SANDSTONE BOTTOM**  
 Long: **W 107.565044'**

SAMPLE DESCRIPTION	TIME	SAMPLE ID	LAB NO.	WEIGHT (g)	ml FREON	DILUTION	READING	CALC. ppm
FD 204	11:35	1	—	5	20	4	201	—
ORTH WALL	11:54	2	—	5	20	4	13	52
OUTH WALL	11:56	3	—	5	20	4	13	52
AST WALL	11:58	4	—	5	20	4	17	68
EST WALL	12:00	5	—	5	20	4	15	60
OTTOM 0 Y'	12:02	5	1	5	20	40	248	9920

## SPILL PERIMETER

## OV RESULTS

## SPILL PROFILE

Hand-drawn diagram of a rectangular spill area. The rectangle is labeled with dimensions 30' (width) and 17' (height). Inside the rectangle, there is a circle labeled '85' and a smaller rectangle with a cross-hatch pattern. A north arrow (N) is located above the rectangle. The entire spill area is enclosed within a larger, irregular boundary.

SAMPLE ID	FIELD HEADSPACE PID (ppm)	
1	0.5	
2	45.3	
3	5.7	
4	13.6	
5	660	
LAB SAMPLES		
SAMPLE ID	ANALYSIS	TIME

Hand-drawn cross-section diagram showing three vertical levels labeled 3', 4', and 5'. Below these levels is a hatched area labeled 'Sandstone'. The text 'Average 4' BGS' is written below the sandstone layer.

VEL NOTES:  CALLED OUT: **ARRIVED @ 11:00 DONE @ 12:15** ONSITE:



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client: ConocoPhillips  
Sample No.: 1  
Sample ID: Surface  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

Project #: 92115-1377  
Date Reported: 8/18/2010  
Date Sampled: 7/29/2010  
Date Analyzed: 7/29/2010  
Analysis Needed: TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	7,560	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: **San Juan 29-7 Unit #11**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Rene Garcia Reyes

Printed

Review

Sarah Rowland, EIT

Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	ConocoPhillips	Project #:	92115-1377
Sample No.:	2	Date Reported:	8/18/2010
Sample ID:	Under AST 1' angled	Date Sampled:	7/29/2010
Sample Matrix:	Soil	Date Analyzed:	7/29/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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<b>Total Petroleum Hydrocarbons</b>	<b>3,410</b>	<b>5.0</b>
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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: **San Juan 29-7 Unit #11**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Rene Garcia Reyes

Printed

Review

Sarah Rowland, EIT

Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	ConocoPhillips	Project #:	92115-1377
Sample No.:	3	Date Reported:	8/18/2010
Sample ID:	Under AST 3' angled	Date Sampled:	7/29/2010
Sample Matrix:	Soil	Date Analyzed:	7/29/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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<b>Total Petroleum Hydrocarbons</b>	<b>4,490</b>	<b>5.0</b>
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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: **San Juan 29-7 Unit #11**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Rene Garcia Reyes

Printed

Review

Sarah Rowland, EIT

Printed





**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client: ConocoPhillips  
Sample No.: 4  
Sample ID: Perimeter  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

Project #: 92115-1377  
Date Reported: 8/18/2010  
Date Sampled: 7/29/2010  
Date Analyzed: 7/29/2010  
Analysis Needed: TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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<b>Total Petroleum Hydrocarbons</b>	<b>144</b>	<b>5.0</b>
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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: **San Juan 29-7 Unit #11**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

**Rene Garcia Reyes**  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
Review

**Sarah Rowland, EIT**  
\_\_\_\_\_  
Printed



CONTINUOUS CALIBRATION  
EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Cal. Date: 29-Jul-10

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	
	214	217
	500	
	1000	

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

Analyst

Rene Garcia Reyes

Print Name

Review

Sarah Rowland, EIT

Print Name

8/18/2010

Date

8/18/2010

Date



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client: ConocoPhillips  
Sample No.: 1  
Sample ID: North Wall  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

Project #: 92115-1383  
Date Reported: 8/18/2010  
Date Sampled: 8/16/2010  
Date Analyzed: 8/16/2010  
Analysis Needed: TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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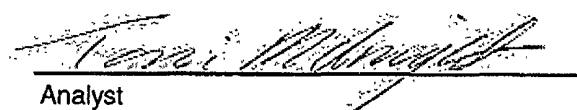
<b>Total Petroleum Hydrocarbons</b>	<b>52</b>	<b>5.0</b>
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ND = Parameter not detected at the stated detection limit.

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

Comments: **San Juan 29-7 Unit #11**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
Analyst

Toni McKnight, EIT  
Printed

  
Review

Sarah Rowland, EIT  
Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client: ConocoPhillips  
Sample No.: 2  
Sample ID: South Wall  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

Project #: 92115-1383  
Date Reported: 8/18/2010  
Date Sampled: 8/16/2010  
Date Analyzed: 8/16/2010  
Analysis Needed: TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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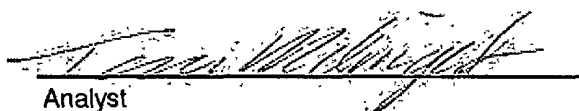
<b>Total Petroleum Hydrocarbons</b>	<b>52</b>	<b>5.0</b>
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ND = Parameter not detected at the stated detection limit.

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

Comments: **San Juan 29-7 Unit #11**

Instrument calibrated to 200 ppm standard. Zeroed before each sample.

  
Analyst

Toni McKnight, EIT  
Printed

  
Review

Sarah Rowland, EIT  
Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client: ConocoPhillips  
Sample No.: 3  
Sample ID: East Wall  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

Project #: 92115-1383  
Date Reported: 8/18/2010  
Date Sampled: 8/16/2010  
Date Analyzed: 8/16/2010  
Analysis Needed: TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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<b>Total Petroleum Hydrocarbons</b>	<b>68</b>	<b>5.0</b>
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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: **San Juan 29-7 Unit #11**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
Analyst

Toni McKnight, EIT  
Printed

  
Review

Sarah Rowland, EIT  
Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client: ConocoPhillips  
Sample No.: 4  
Sample ID: West Wall  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

Project #: 92115-1383  
Date Reported: 8/18/2010  
Date Sampled: 8/16/2010  
Date Analyzed: 8/16/2010  
Analysis Needed: TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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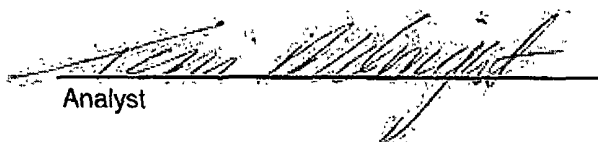
<b>Total Petroleum Hydrocarbons</b>	<b>60</b>	<b>5.0</b>
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ND = Parameter not detected at the stated detection limit.

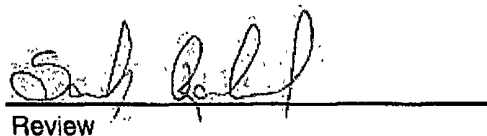
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **San Juan 29-7 Unit #11**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
Analyst

Toni McKnight, EIT  
Printed

  
Review

Sarah Rowland, EIT  
Printed



**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	ConocoPhillips	Project #:	92115-1383
Sample No.:	5	Date Reported:	8/18/2010
Sample ID:	Sandstone Bottom at 4' BGS	Date Sampled:	8/16/2010
Sample Matrix:	Soil	Date Analyzed:	8/16/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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<b>Total Petroleum Hydrocarbons</b>	<b>9,920</b>	<b>5.0</b>
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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: **San Juan 29-7 Unit #11**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
Analyst

**Toni McKnight, EIT**  
Printed

  
Review

**Sarah Rowland, EIT**  
Printed



CONTINUOUS CALIBRATION  
EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Cal. Date: 16-Aug-10


Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	201
	204	
	500	
	1000	

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

  
Analyst

8/18/2010  
Date

Toni McKnight, EIT  
Print Name

  
Review

8/18/2010  
Date

Sarah Rowland, EIT  
Print Name





**envirotech**  
Analytical Laboratory

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


Client:	ConocoPhillips	Project #:	92115-1383
Sample ID:	Bottom (sandstone)	Date Reported:	08-17-10
Laboratory Number:	55573	Date Sampled:	08-16-10
Chain of Custody No:	10199	Date Received:	08-16-10
Sample Matrix:	Soil	Date Extracted:	08-16-10
Preservative:	Cool	Date Analyzed:	08-17-10
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	2,980	0.2
Diesel Range (C10 - C28)	63.8	0.1
Total Petroleum Hydrocarbons	3,040	0.2

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: **San Juan 29-7 Unit #11 (hBr)**

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Review



# envirotech

Analytical Laboratory

## EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-17-10 QA/QC	Date Reported:	08-17-10
Laboratory Number:	55571	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-17-10
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	08-17-10	9.9960E+002	1.0000E+003	0.04%	0 - 15%
Diesel Range C10 - C28	08-17-10	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
Total Petroleum Hydrocarbons	ND	0.2


Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	257	103%	75 - 125%
Diesel Range C10 - C28	ND	250	252	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 55571-55576

  
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Analyst

  
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Review



**envirotech**  
Analytical Laboratory

**EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS**

Client:	ConocoPhillips	Project #:	92115-1383
Sample ID:	Bottom (sandstone)	Date Reported:	08-17-10
Laboratory Number:	55573	Date Sampled:	08-16-10
Chain of Custody:	10199	Date Received:	08-16-10
Sample Matrix:	Soil	Date Analyzed:	08-17-10
Preservative:	Cool	Date Extracted:	08-16-10
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	2,030	0.9
Toluene	52,200	1.0
Ethylbenzene	8,040	1.0
p,m-Xylene	76,600	1.2
o-Xylene	22,800	0.9
Total BTEX	162,000	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	105 %
	1,4-difluorobenzene	105 %
	Bromochlorobenzene	106 %

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: San Juan 29-7 Unit #11 (hBr)

  
\_\_\_\_\_  
Analyst

  
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Review



# envirotech

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## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0817BBLK QA/QC	Date Reported:	08-17-10
Laboratory Number:	55571	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-17-10
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	C-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range 0 - 15%			
Benzene	8.3627E+005	8.3795E+005	0.2%	ND	0.1
Toluene	9.3497E+005	9.3684E+005	0.2%	ND	0.1
Ethylbenzene	8.6362E+005	8.6535E+005	0.2%	ND	0.1
p,m-Xylene	2.1295E+006	2.1338E+006	0.2%	ND	0.1
o-Xylene	7.6544E+005	7.6697E+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	50.0	50.1	100%	39 - 150
Toluene	ND	50.0	50.4	101%	46 - 148
Ethylbenzene	ND	50.0	49.2	98.3%	32 - 160
p,m-Xylene	ND	100	100	100%	46 - 148
o-Xylene	ND	50.0	50.2	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

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 55571-55576, 55548-55550

  
Analyst

  
Review

# CHAIN OF CUSTODY RECORD

10199

Client: <b>CONOCO PHILLIPS</b>			Project Name / Location: <b>SAN JUAN 29-7 Unit #11 (hBr)</b>			ANALYSIS / PARAMETERS <b>RUSA</b>																
Client Address:			Sampler Name: <b>Toni McKnight</b>																			
Client Phone No.:			Client No.: <b>92115-1383</b>																			
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)	PCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
<b>Bottom (SANDSTONE)</b>	<b>Aug 16, 2010</b>	<b>12:02</b>	<b>55573</b>	<b>Soil Solid</b>	<b>1/4oz</b>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										<b>Y</b>	<b>Y</b>
				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) <b>Toni McKnight</b>				Date <b>Aug 16 2010</b>	Time <b>13:35</b>	Received by: (Signature) <b>[Signature]</b>				Date <b>8/16/10</b>				Time <b>1335</b>								
Relinquished by: (Signature)						Received by: (Signature)																
Relinquished by: (Signature)						Received by: (Signature)																



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



September 27, 2010

Project No. 92115-1377  
92115-1383

Ms. Kelsi Harrington  
ConocoPhillips  
3401 East 30<sup>th</sup> Street  
Farmington, New Mexico 87401

Phone: (505) 599-3403  
Cell: (505) 320-2461

**RE: ADDENDUM TO SPILL ASSESSMENT AND CONFIRMATION SAMPLING DOCUMENTATION  
FOR THE SAN JUAN 29-7 UNIT #11 (hBr), RIO ARriba COUNTY, NEW MEXICO**

Dear Ms. Harrington,

Enclosed please find the field notes and analytical results for additional confirmation sampling activities performed at the San Juan 29-7 Unit #11 (hBr) well site located in Section 3, Township 29N, Range 7W, Rio Arriba County, New Mexico. On August 26, 2010, one (1) composite sample was collected from the bottom of the excavation where potassium permanganate had previously been applied. The sample was collected into a four (4)-ounce glass jar, capped headspace free, and 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 BTEX using USEPA Method 8021. The sample returned results below the 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. Should you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,  
**ENVIROTECH, INC.**

Barian Williamson  
Senior Environmental Field Technician  
[bwilliamson@envirotech-inc.com](mailto:bwilliamson@envirotech-inc.com)

Enclosure(s): Field Notes  
Analytical Results

Cc: Client File 92115

at: **Conoco  
Phillips**



**envirotech**  
(800) 632-0818 (800) 362-1878  
8786 U.S. Hwy 64, Farmington, NM 87401

Location No:  
**92115-1377**  
C.O.C. No:

## ELD REPORT: SPILL CLOSURE VERIFICATION

PAGE NO: **1** OF **1**

ATION: NAME: **San Juan 29-7** WELL #: **11**

DATE STARTED: **8-26-10**

AD/UNIT: SEC: **3** TWP: **29N** RNG: **7W** PM: CNTY: **RA** ST: **NM**

DATE FINISHED: **8-26-10**

U/FOOTAGE: CONTRACTOR:

ENVIRONMENTAL

SPECIALIST: **B. W. Hicman**

AVATION APPROX: **20** FT. X **15** FT. X **3** FT. DEEP CUBIC YARDAGE:

POSAL FACILITY: REMEDIATION METHOD: **Removal**

ID/USE: **Grazing** LEASE: LAND OWNER: **Fidel**

USE OF RELEASE: **Tank leak** MATERIAL RELEASED: **Condensate**

LOCATED APPROXIMATELY: FT. FROM

TH TO GROUNDWATER: **180'** NEAREST WATER SOURCE: NEAREST SURFACE WATER: **240'**

OCOD RANKING SCORE: **10** NMOCD TPH CLOSURE STD: **1000** PPM

LAND EXCAVATION DESCRIPTION: **collected (1) 5 pt composite sample  
from excavation bottom**

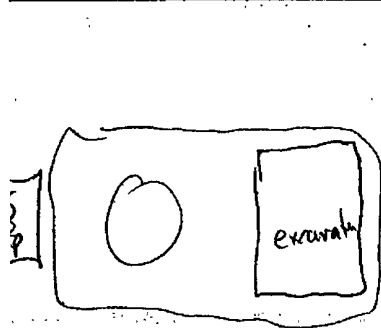
**bottom of excavation was sand stone**

SAMPLE DESCRIPTION	TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. ppm

### SPILL PERIMETER

### OV RESULTS

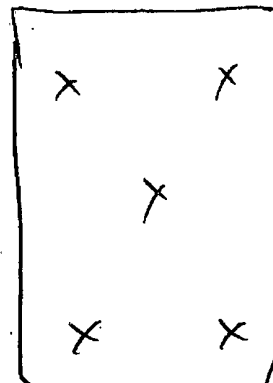
### SPILL PROFILE



SAMPLE ID	FIELD HEADSPACE PID (ppm)

### LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME



**Sample Collection Points**

VEL NOTES: CALLED OUT: ONSITE:

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


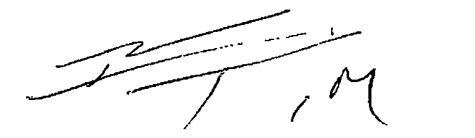
Client:	ConocoPhillips	Project #:	92115-1377
Sample ID:	5 Pt Composite From Bottom	Date Reported:	08-31-10
Laboratory Number:	55689	Date Sampled:	08-26-10
Chain of Custody No:	10268	Date Received:	08-26-10
Sample Matrix:	Soil	Date Extracted:	08-30-10
Preservative:	Cool	Date Analyzed:	08-31-10
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.2	0.2
Diesel Range (C10 - C28)	2.8	0.1
Total Petroleum Hydrocarbons	4.0	0.2

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: **San Juan 29-7 #11**

  
\_\_\_\_\_  
Analyst  
\_\_\_\_\_  
Review





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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:	08-31-10 QA/QC	Date Reported:	08-31-10
Laboratory Number:	55689	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-31-10
Condition:	N/A	Analysis Requested:	TPH

	Cal Date	I:Cal:RF	C:Cal:RF	% Difference	Accept Range
Gasoline Range C5 - C10	08-31-10	9.9960E+002	1.0000E+003	0.04%	0 - 15%
Diesel Range C10 - C28	08-31-10	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
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	1.2	1.2	0.0%	0 - 30%
Diesel Range C10 - C28	2.8	3.0	7.0%	0 - 30%

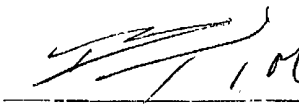
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	1.2	250	255	101%	75 - 125%
Diesel Range C10 - C28	2.8	250	256	101%	75 - 125%

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 55689, 55701-55705, 55715-55718

  
Analyst

  
Review



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## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips	Project #:	92115-1377
Sample ID:	5 Pt Composite From Bottom	Date Reported:	08-31-10
Laboratory Number:	55689	Date Sampled:	08-26-10
Chain of Custody:	10268	Date Received:	08-26-10
Sample Matrix:	Soil	Date Analyzed:	08-31-10
Preservative:	Cool	Date Extracted:	08-30-10
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	ND	1.0
Ethylbenzene	3.4	1.0
p,m-Xylene	45.9	1.2
o-Xylene	13.3	0.9
Total BTEX	62.6	

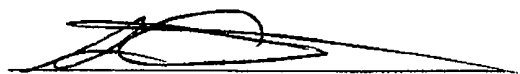
ND - Parameter not detected at the stated detection limit.

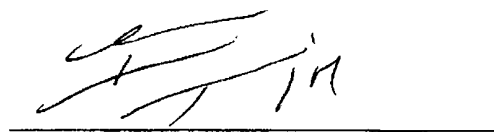
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.8 %
	1,4-difluorobenzene	97.3 %
	Bromochlorobenzene	100 %

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: San Juan 29-7 #11

  
Analyst

  
Review



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## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	0831BBLK QA/QC	Date Reported:	08-31-10
Laboratory Number:	55689	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-31-10
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	% Diff	Blank Conc	Detect Limit
			Accept Range 0 - 15%		
Benzene	7.4643E+005	7.4793E+005	0.2%	ND	0.1
Toluene	8.2496E+005	8.2661E+005	0.2%	ND	0.1
Ethylbenzene	7.4852E+005	7.5002E+005	0.2%	ND	0.1
p,m-Xylene	1.8052E+006	1.8089E+006	0.2%	ND	0.1
o-Xylene	6.7051E+005	6.7185E+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	3.4	3.0	11.8%	0 - 30%	1.0
p,m-Xylene	45.9	47.0	2.4%	0 - 30%	1.2
o-Xylene	13.3	13.3	0.0%	0 - 30%	0.9

Spike Conc (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	50.2	100%	39 - 150
Toluene	ND	50.0	50.6	101%	46 - 148
Ethylbenzene	3.4	50.0	50.3	100%	32 - 160
p,m-Xylene	45.9	100	104	99.0%	46 - 148
o-Xylene	13.3	50.0	51.5	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

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.

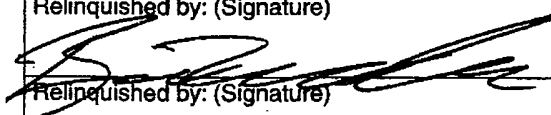
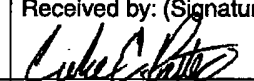
Comments: QA/QC for Samples 55689, 55701-55705, 55715-55718


Analyst

Review

# CHAIN OF CUSTODY RECORD

10268

Client: <b>Conoco Phillips</b>			Project Name / Location: <b>San Juan 29-7 # 11</b>			ANALYSIS / PARAMETERS																	
Client Address:			Sampler Name: <b>Barian Williamson</b>			<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH (Method 8015)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (Method 8021)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOC (Method 8260)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">RCRA 8 Metals</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Cation / Anion</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">RCI</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP with H/P</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PAH</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH (418.1)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CHLORIDE</div> </div> <div style="width: 15%; text-align: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Sample Cool</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Sample Intact</div> </div> </div>																	
Client Phone No.:			Client No.: <b>92115-1377</b>																				
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative HgCl <sub>2</sub> HCl Fe			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
5 point Composite from Bottom	8/26/10	14:40	55689	Soil Solid	1-402			X	X	X												X	X
				Soil Solid	Sludge Aqueous																		
				Soil Solid	Sludge Aqueous																		
				Soil Solid	Sludge Aqueous																		
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Relinquished by: (Signature) 			Date 8/26/10	Time 16:09	Received by: (Signature) 			Date 8/26/10			Time 16:09												
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Relinquished by: (Signature)					Received by: (Signature)																		



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