

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

RECEIVED
2009 MAY 18 PM 2:39

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Elm Ridge Exploration	Contact: Amy Mackey
Address: PO Box 156, Bloomfield, NM 87413	Telephone No.: (505) 632-3476 Ext 201
Facility Name: West Bisti Coal 23-1	Facility Type: Gas Well

Surface Owner: Federal	Mineral Owner:	Lease No.: NM-61273
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LOCATION OF RELEASE

Unit Letter G	Section 23	Township 25N	Range 13W	Feet from the 2510	North/South Line FNL	Feet from the 1850	East/West Line FEL	County San Juan
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Latitude 36.387052 Longitude -108.185869

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: Unknown	Volume Recovered: Unknown
Source of Release: Earth Pit	Date and Hour of Occurrence: Historical	Date and Hour of Discovery: NA
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.*

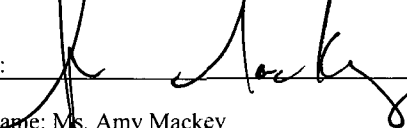
Describe Cause of Problem and Remedial Action Taken.*

Produced Water from gas well at the mentioned location formerly discharged into an earthen pit on location. The well has been altered to no longer drain into an earthen pit, but instead into an Above Ground Storage Tank (AST).

Describe Area Affected and Cleanup Action Taken.*

Earthen pit was in use on 11/3/08, but has not been discharged into since November 2008. A sample was collected from the earthen pit and the sample results are attached to this document for reference. The sample was analyzed for in the field for Total Petroleum Hydrocarbons (TPH) via USEPA Method 418.1 and in Envirotech's laboratory for benzene and total BTEX via USEPA Method 8021 and for total chlorides via USEPA Method 4500B. The sample returned results that were below the 0.2 ppm benzene and the 50 ppm BTEX standards, but above the 250 ppm total chloride standard and the 100 ppm TPH standard, confirming that a release had occurred at this site. The site was then ranked pursuant to the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. The site was ranked a 10 due to groundwater being greater than 50 feet but less than 100 feet below the ground. This set the closure standards to 1000 ppm TPH, 10 ppm benzene and 50 ppm total BTEX. There is no closure standard for total chlorides per the NMOCD Guidelines for the Remediation of Leaks, Spills and Releases. All analytical results were below the closure standards determined for this site.

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: Ms. Amy Mackey		Approved by District Supervisor:	
Title: Administrative Manager		Approval Date:	Expiration Date:
E-mail Address: amackey1@elmridge.net		Conditions of Approval:	Attached <input type="checkbox"/>
Date: Phone: 505-632-3476 Ext 201			

* Attach Additional Sheets If Necessary

PAGE NO: <u>1</u> OF <u>1</u> DATE STARTED: <u>11/3/08</u> DATE FINISHED: <u>11/3/08</u>	ENVIROTECH INC ENVIRONMENTAL SCIENTISTS & ENGINEERS 5796 U.S. HIGHWAY 64 - 3014 FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615	ENVIRONMENTAL SPECIALIST: <u>12 BENALLY</u> LAT: <u>36.387052</u> LONG: <u>-108.185869</u>
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FIELD REPORT: BGT / PIT CLOSURE VERIFICATION

LOCATION: NAME: <u>West Bisti Coal 23</u>	WELL #: <u>1</u>	TEMP PIT: <u>PERMANENT</u>	PIT: <u>X</u> BGT:
LEGAL ADD: UNIT: <u>9</u>	SEC: <u>23</u>	TWP: <u>25N</u>	RNG: <u>13W</u> PM:
QTR/FOOTAGE: <u>2510' FAL X 1850' FEL</u>	CNTY: <u>SAN JUAN</u>	ST: <u>NM</u>	

EXCAVATION APPROX: <u>—</u> FT. <u>X</u> <u>—</u> FT. <u>X</u> <u>—</u> FT. DEEP	CUBIC YARDAGE: <u>—</u>
DISPOSAL FACILITY: <u>—</u>	REMEDIALATION METHOD: <u>—</u>
LAND OWNER: <u>—</u>	API: <u>3604528643</u> BGT / PIT VOLUME: <u>—</u>
CONSTRUCTION MATERIAL: <u>EARTH</u>	DOUBLE-WALLED, WITH LEAK DETECTION: <u>—</u>
LOCATION APPROXIMATELY: <u>68'</u> FT. <u>100°</u>	FROM WELLHEAD
DEPTH TO GROUNDWATER: <u>< 100</u>	

TEMPORARY PIT - GROUNDWATER 50-100 FEET DEEP

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, GRO & DRO FRACTION (8015) ≤ 500 mg/kg, TPH (418.1) ≤ 2500 mg/kg, CHLORIDES ≤ 500 mg/kg

TEMPORARY PIT - GROUNDWATER ≥ 100 FEET DEEP

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, GRO & DRO FRACTION (8015) ≤ 500 mg/kg, TPH (418.1) ≤ 2500 mg/kg, CHLORIDES ≤ 1000 mg/kg

X PERMANENT PIT OR BGT

BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, TPH (418.1) ≤ 100 mg/kg, CHLORIDES ≤ 250 mg/kg

FIELD 418.1 ANALYSIS

TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (mg/kg)
	200 STD					199	
2:20	5PT CAMP	1	5	20	4	29	110 ppm
		2					
		3					
		4					
		5					
		6					

PERIMETER

FIELD CHLORIDES RESULTS

PROFILE

	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>SAMPLE ID</th><th>READING</th><th>CALC. (mg/kg)</th></tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	SAMPLE ID	READING	CALC. (mg/kg)																															<p>20'x20'x2' DEPTH</p>
SAMPLE ID	READING	CALC. (mg/kg)																																	
PID RESULTS																																			
SAMPLE ID		RESULTS (mg/kg)																																	
5PT CAMP.		0.0																																	

LAB SAMPLES

NOTES:

SAMPLE ID	ANALYSIS	RESULTS
	BENZENE	
	BTEX	
	GRO & DRO	
	CHLORIDES	

NMOC Ranking 10: 1000 ppm Closure standard TPH

WORKORDER #

WHO ORDERED



**EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS**

Client:	Elm Ridge Exploration	Project #:	03056-0215
Sample No.:	1	Date Reported:	2/24/2009
Sample ID:	5 Point Composite	Date Sampled:	11/3/2008
Sample Matrix:	Soil	Date Analyzed:	11/3/2008
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	116	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: **West Bisti Coal 23-1 Earthen Pit**

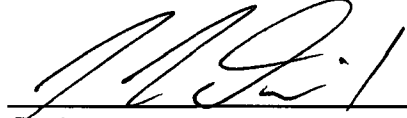
Instrument calibrated to 200 ppm standard. Zeroed before each sample



Analyst

Roynell Benally

Printed



Review

James McDaniel

Printed



CONTINUOUS CALIBRATION
EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Cal. Date: 3-Nov-08

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	199
	200	
	500	
	1000	

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



Analyst

2/24/09

Date

Roynell Benally

Print Name



Review

2/24/09

Date

James McDaniel

Print Name

Client:	Elmridge	Project #:	03056-0136
Sample ID:	West Bisti Coal 23-001	Date Reported:	11-10-08
Laboratory Number:	48023	Date Sampled:	11-03-08
Chain of Custody:	5698	Date Received:	11-03-08
Sample Matrix:	Soil	Date Analyzed:	11-07-08
Preservative:	Cool	Date Extracted:	11-06-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	3.6	1.0
Ethylbenzene	1.4	1.0
p,m-Xylene	3.8	1.2
o-Xylene	1.1	0.9
Total BTEX	9.9	

ND - Parameter not detected at the stated detection limit.

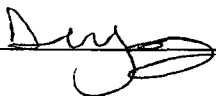
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

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

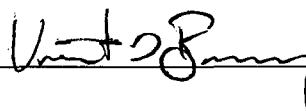
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Earth Pit Samples/ 5pt Comp.

Analyst



Review



Client:	N/A	Project #:	N/A
Sample ID:	11-07-BT QA/QC	Date Reported:	11-10-08
Laboratory Number:	48015	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-07-08
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	4.6942E+007	4.7036E+007	0.2%	ND	0.1
Toluene	3.4897E+007	3.4967E+007	0.2%	ND	0.1
Ethylbenzene	2.6625E+007	2.6678E+007	0.2%	ND	0.1
p,m-Xylene	5.7845E+007	5.7961E+007	0.2%	ND	0.1
o-Xylene	2.6213E+007	2.6265E+007	0.2%	ND	0.1


Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	1.2	1.3	8.3%	0 - 30%	0.9
Toluene	4.7	4.4	6.4%	0 - 30%	1.0
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.0
p,m-Xylene	5.3	6.1	15.1%	0 - 30%	1.2
o-Xylene	6.3	6.1	3.2%	0 - 30%	0.9

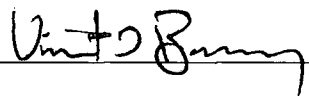
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1.2	50.0	50.2	98.0%	39 - 150
Toluene	4.7	50.0	52.4	95.8%	46 - 148
Ethylbenzene	ND	50.0	48.0	96.0%	32 - 160
p,m-Xylene	5.3	100	102	97.1%	46 - 148
o-Xylene	6.3	50.0	53.3	94.7%	46 - 148

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 48015 - 48018, 48020, 48021, 48023, 48024, 48041 and 48042.

Analyst 

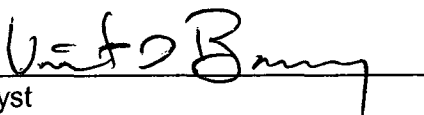
Review 

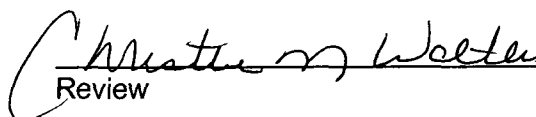
Client:	Elm Ridge	Project #:	03056-0136
Sample ID:	West Bisti Coal 23-001	Date Reported:	11-11-08
Lab ID#:	48023	Date Sampled:	11-03-08
Sample Matrix:	Soil	Date Received:	11-03-08
Preservative:	Cool	Date Analyzed:	11-11-08
Condition:	Intact	Chain of Custody:	5698

Parameter**Concentration (mg/Kg)****Total Chloride****610**

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., 1992.

Comments: **Earth Pit Samples / 5 pt Comp.**


Analyst


Review

CHAIN OF CUSTODY RECORD

5698

Client: ENVIROTECH		Project Name / Location: EARTH PIT SAMPLES / 5th Camp.		ANALYSIS / PARAMETERS																		
Client Address:		Sampler Name: RENNY																				
Client Phone No.:		Client No.: 03056-0136 0356-0136																				
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative HgCl ₂ HCl			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
WEST BIST COAL 15-001	10/3/08	10:30am	48016	Soil Solid	4.02				X	X								X			✓	✓
WEST BIST COAL 15-001 / CONTAMINATED GROUND PINE		10:30am	48017	Soil Solid					X	X								X	X		✓	✓
WEST BIST COAL 24 COM 002		4:20pm	48018	Soil Solid					X	X								X			✓	✓
WEST BIST COAL 10-002		8:50am	48019	Soil Solid					X												✓	✓
WEST BIST COAL 22 COM 001		12:20pm	48020	Soil Solid						X								X			✓	✓
WEST BIST COAL 22-02		1:50pm	48021	Soil Solid						X								X			✓	✓
WEST BIST COAL 15-002		10:59am	48022	Soil Solid					X												✓	✓
WEST BIST COAL 23-001		3:00pm	48023	Soil Solid						X								X			✓	✓
				Soil Solid																		
				Soil Solid																		
Relinquished by: (Signature) RENNY				Date 10/3/08	Time 5:30pm	Received by: (Signature) [Signature]				Date 11/3/08	Time 17:30											
Relinquished by: (Signature)						Received by: (Signature)																
Relinquished by: (Signature)						Received by: (Signature)																

ENVIROTECH INC.