<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District III
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 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

Revised October 10,

Form C-

Submit 2 Copies to approp District Office in accord with Rule 116 on side of 1

			Rele	ease Notific	cation	and Co	orrective A	ction				
						OPERA	ГOR			al Report		Final R
Name of Co	ompany: E	lm Ridge Ex	ploration	l .		Contact: Ar	ny Mackey					
		, Bloomfield		413		Telephone No.: (505) 632-3476 Ext 201						
Facility Nar	me: East B	isti Coal 6-1				Facility Type: Gas Well						
Surface Ow	ner: Feder	al		Mineral (Owner:				Lease N	lo.: SF-078	3062-A	
l-A				LOCA	ATION	OF RE	LEASE					
Unit Letter A	Section 6	Township 25N	Range 11W	Feet from the 830	North/	South Line FNL	Feet from the 1300	East/West Line County FEL San Juan				
		<u> </u>	·				le: -108.040664	•				
- cn 1		1 111		NAT	URE	OF REL		1	77.1 - T	Recovered:	T T 1	
	Type of Release: Produced Water Source of Release: Earth Pit						Release: Unknow lour of Occurrenc			Hour of Dis		
Source of Ne.	icase. Larui	rit				Historical	iour or occurrenc	c.	Date and	11001 01 1515	covery.	1471
Was Immedia	ate Notice (Vac [No 🛛 Not R	aguirad	If YES, To	Whom?		· · · · ·			
By Whom?		U	i es _	1 NO M 100 K	equired	Date and H	lour					
Was a Water	course Reac	ched?	Yes 🗵	l No			olume Impacting t	he Wate	rcourse.			
If a Watercou	waa waa Ima											
ii a watercou	iise was iiii	pacied, Descri	ibe Fully.									
Describe Cau Produced Wa into an earthe	ter from ga				discharg	ged into an ea	arthen pit on locat	ion. Th	e well has		to no lo	onger dra
5-point composition total petro for total chloridation.	is removed osite sample leum hydro ides via US	from the earth was collecte carbons (TPH EPA Method	nen pit, and d from app l) via USE 4500B. T	d approximately sproximately one (PA Method 418. The sample returns	1) foot b 1, and in ed results	elow the ear Envirotech's below the	vards of 'production of then pit once it was laboratory for be Pit Rule' standard . Analytical results	as removenzene a ls of 100	ved. The sand BTEX: mg/kg TP	ample was a via USEPA I H, 0.2 mg/k	malyzed Method g benze	l in the fid 8021 and
regulations all public health of should their of	operators a or the envir perations ha ment. In ac	are required to onment. The ave failed to a Idition, MMO	report an acceptance dequately CD accept	d/or file certain re e of a C-141 repo investigate and re	elease no ort by the emediate	tifications ar NMOCD ma contamination	knowledge and used perform correctarked as "Final Roton that pose a three the operator of r	tive acti eport" de eat to gr	ons for rele oes not reli ound water	eases which eve the oper , surface wa	may end rator of later, hun	danger liability nan healt
	V	/("				OIL CONSERVATION DIVISION						
Signature:	\mathcal{N}											
Printed Name:	Ms. Amy	u Mackey			Α	approved by	District Superviso	or:		<u> </u>		
Title: Adminis	strative Ma	nager			A	pproval Dat	e:	F	Expiration l	Date:		
E-mail Addres						Conditions of Approval:				Attached		
Date: 6	onal Shee			5-632-3476 Ext 2	201					<u> </u>		

District 1 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** Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For temporary pits, closed-loop systems, an below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

District Office.
Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application
Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank, or alternative request
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations, or ordinary.
Operator: Elm Ridge Exploration OGRID #: 149052
Address: P.O. Box 156; Bloomfield, NM 87413
Facility or well name: East Bisti Coal 6-1
API Number: 3004527871 OCD Permit Number:
U/L or Qtr/Qtr A Section 6 Township 25N Range 11W County: San Juan
Center of Proposed Design: Latitude <u>36.435066</u> Longitude <u>-108.040664</u> NAD: <u>□</u> 1927 ■ 1983
Surface Owner: Federal State Private Tribal Trust or Indian Allotment
2. ☑ Pit: Subsection F or G of 19.15.17.11 NMAC
Temporary: Drilling Workover
Permanent Emergency Cavitation P&A
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other
String-Reinforced
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L 12' x W 12' x D 5'
☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of Operation).
intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other
Liner Seams: Welded Factory Other
4.
Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume:bbl Type of fluid:
Tank Construction material:
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Not labeled
Liner type: Thicknessmil
5.
Alternative Method:

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6. Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)	
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school institution or church)	, hospital,
Four foot height, four strands of barbed wire evenly spaced between one and four feet	-
Alternate. Please specify	
7.	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
☐ Screen ☐ Netting ☐ Other	
☐ Monthly inspections (If netting or screening is not physically feasible)	
8.	7, 1
Signs: Subsection C of 19.15.17.11 NMAC	
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	
Signed in compliance with 19.15.3.103 NMAC	
9. Administrative Approvals and Exceptions:	
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.	
Please check a box if one or more of the following is requested, if not leave blank: Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau	office for
consideration of approval.	office for
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accematerial are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the apprositive of the santa for may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry	opriate district approval.
above-grade tanks associated with a closed-loop system.	☐ Yes ☐
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes 1
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	
 (Applies to permanent pits) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	│
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock	
watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ 1
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.	Yes 🔲 1
Within 500 feet of a wetland.	Yes 1
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	Yes 1
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ N
Within a 100-year floodplain. FEMA map	☐ Yes ☐ 1

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents attached.	are
Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC	
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC	NMA
Previously Approved Design (attach copy of design) API Number: or Permit Number:	
12. Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents attached.	are
Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC	
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 and 19.15.17.13 NMAC	NMA
Previously Approved Design (attach copy of design) API Number:	
Previously Approved Operating and Maintenance Plan API Number: (Applies only to closed-loop system that	use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)	.,
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents of attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	are
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.	
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative	
Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only)	
On-site Closure Method (Only for temporary pits and closed-loop systems)	
 ✓ In-place Burial ☐ On-site Trench Burial ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration 	n)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to a closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	the

Waste Removal Closure For Closed-loop Systems That Utilize Above Grou Instructions: Please indentify the facility or facilities for the disposal of liqui facilities are required.		
Disposal Facility Name:	Disposal Facility Permit Number:	
Disposal Facility Name:		
Will any of the proposed closed-loop system operations and associated activitie ☐ Yes (If yes, please provide the information below) ☐ No	- ·	vice and operatio
Required for impacted areas which will not be used for future service and operation Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsect Site Reclamation Plan - based upon the appropriate requirements of Subsect	iate requirements of Subsection H of 19.15.17.13 NMA ion I of 19.15.17.13 NMAC	С
17. Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMA Instructions: Each siting criteria requires a demonstration of compliance in a provided below. Requests regarding changes to certain siting criteria may requested an exception which must be submitted to the Santa Fe Environment demonstrations of equivalency are required. Please refer to 19.15.17.10 NMA	he closure plan. Recommendations of acceptable sour uire administrative approval from the appropriate dist ntal Bureau office for consideration of approval. Justi	rict office or may
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; I	Pata obtained from nearby wells	Yes No
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; I	Data obtained from nearby wells	☐ Yes ☐ No
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; I	Data obtained from nearby wells	☐ Yes ☐ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	significant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or chu - Visual inspection (certification) of the proposed site; Aerial photo; Satel		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that watering purposes, or within 1000 horizontal feet of any other fresh water well or NM Office of the State Engineer - iWATERS database; Visual inspection	or spring, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh wadopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approximation		☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Vi	sual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Min	ing and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geolesics; Topographic map	ogy & Mineral Resources; USGS; NM Geological	☐ Yes ☐ No
Within a 100-year floodplain FEMA map		☐ Yes ☐ No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements Construction/Design Plan of Burial Trench (if applicable) based upon the Construction/Design Plan of Temporary Pit (for in-place burial of a drying Protocols and Procedures - based upon the appropriate requirements of 19 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements Disposal Facility Name and Permit Number (for liquids, drilling fluids and Soil Cover Design - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsections.	equirements of 19.15.17.10 NMAC of Subsection F of 19.15.17.13 NMAC appropriate requirements of 19.15.17.11 NMAC g pad) - based upon the appropriate requirements of 19. 15.17.13 NMAC equirements of Subsection F of 19.15.17.13 NMAC of Subsection F of 19.15.17.13 NMAC d drill cuttings or in case on-site closure standards cannot H of 19.15.17.13 NMAC on I of 19.15.17.13 NMAC	15.17.11 NMAC

Operator Application Certification:	
I hereby certify that the information submitted with this application is true.	
Name (Print):	Title:
Signature:	Date:
E-mail address:	Telephone:
OCD Approval: Permit Application (including closure plan)	losure Plan (only) OCD Conditions (see attachment)
OCD Representative Signature:	Approval Date:
Title:	OCD Permit Number:
	n prior to implementing any closure activities and submitting the closure repo lays of the completion of the closure activities. Please do not complete this
	☑ Closure Completion Date: 9/4/09
22. Closure Method: Waste Excavation and Removal ☐ On-Site Closure Method ☐ If different from approved plan, please explain.	Alternative Closure Method
	Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: ids, drilling fluids and drill cuttings were disposed. Use attachment if more to
Disposal Facility Name: Envirotech Landfarm #2	
Disposal Facility Name:	
Were the closed-loop system operations and associated activities performed Yes (If yes, please demonstrate compliance to the items below)	ed on or in areas that will not be used for future service and operations? No
Required for impacted areas which will not be used for future service and Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	operations:
mark in the box, that the documents are attached. □ Proof of Closure Notice (surface owner and division) See Attached □ Proof of Deed Notice (required for on-site closure) □ Plot Plan (for on-site closures and temporary pits) □ Confirmation Sampling Analytical Results (if applicable) See Attached □ Waste Material Sampling Analytical Results (required for on-site closures) □ Disposal Facility Name and Permit Number Envirotech Landfarm □ Soil Backfilling and Cover Installation See Attached □ Re-vegetation Application Rates and Seeding Technique Pursuant Site Reclamation (Photo Documentation) See Attached	nched osure) n #2, NM-01-0011
25.	Zongreute A. S.
Operator Closure Certification:	losure report is true, accurate and complete to the best of my knowledge and equirements and conditions specified in the approved closure plan.
Name (Print): Ms. Amy Mackey	Title: Administrative Manager
Signature:	Date:
E-mail address amackey1@elmridge.net	Telephone: (955) 632-3476, 251

Earthen Pit Closure Checklist

- Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close all former earthen pits prior to the closure date agreed upon by the New Mexico Oil Conservation Division (NMOCD) of December 31, 2009.
 Closure date for the earth pit located at East Bisti Coal 6-1 well site is September 4, 2009.
- 2) In accordance with Subsection A of 19.15.17.13 NMAC, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close any earthen pits at a date the division requires because of imminent danger to fresh water, public health or the environment.
 - None of the earthen pits to be closed by Elm Ridge Exploration are deemed an imminent risk to the environment, public health, or to fresh or public water.
- 3) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close earthen pits first which seem to pose a greater risk to fresh water, public health, or the environment. This will be determined by the locations proximity to surface water sources and distance to groundwater.
 None of the earthen pits to be closed by Elm Ridge Exploration are deemed an

None of the earthen pits to be closed by Elm Ridge Exploration are deemed an imminent risk to the environment, public health, or to fresh or public water.

- 4) No less than 60 days prior to any earthen pit closure activities, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the Santa Fe NMOCD office as well as a schedule of on-site activities, as in accordance with 19.15.17.13 Subsection J Paragraph (3) NMAC. Notification was provided to Mr. Brad Jones of the NMOCD Santa Fe Office on August 4, 2009, along with a schedule of on-site activities; see attached Notification Letter.
- 5) No less than 24 hours and no greater than one (1) week prior to earthen pit removal, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the appropriate surface owner as well as a schedule of on-site activities, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the surface owner by certified mail, return receipt requested, that the operator plans to close an earthen pit. The return receipt will be used to ensure that the surface owner has received written notification no less than 24 hours and no greater than one (1) week prior to the beginning of earth pit closure activities. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this Closure activities that will take place on tribal land will have notifications sent by certified mail, return receipt requested, to the appropriate tribal Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the Bureau of Land Management (BLM) of closure activities for wells located on federal land per a Sundry Notice, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. All notices will be sent in such a way that the surface owner will receive notice at least 24 hours prior to the beginning of closure activities.

Notification was provided to the Bureau of Land Management on August 26, 2009; see attached Sundry Notice and Return Receipt.

- 6) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all liquids and/or sludge, to visual extents, prior to closure sampling. Material will be disposed of at Envirotech's Landfarm #2, Permit # NM-01-0011, TNT Environmental Inc. Landfarm, Permit # NM-01-0008, Industrial Ecosystems Inc. (IEI) Landfarm, Permit # NM-01-0010B, or Basin Disposal, Permit # NM-01-0005, depending on the consistence of the material removed, as in accordance with 19.15.17.13 Subsection C Paragraph (1) NMAC.
 - On August 31, 2009 through September 4, 2009, approximately 64 cubic yards of production sludge was removed from the earthen pit and disposed of at Envirotech's NMOCD permitted soil remediation facility, Landfarm #2, Permit # NM-01-0011; see attached *Bill of Lading*.
- 7) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all on-site equipment associated with this earthen pit unless it is required for some other purpose, as in accordance with 19.15.17.13 Subsection C Paragraph (2) NMAC. The equipment that meets the requirements of 19.15.9.712 Subsection A NMAC and 19.15.9.712 Subsection D Paragraph (1) will be disposed of at San Juan County Regional Landfill. Waste that is classified by 19.15.9.712 Subsection D Paragraph (2) will be sampled accordingly to determine acceptance of this material at the San Juan County Regional Landfill. Waste that is unable to be accepted at the San Juan County Regional Landfill will be submitted to the OCD on a case-by-case basis in accordance with Paragraph (3) of Subsection D of 19.15.9.712.
 - All on-site equipment will be used for the continued operation of the East Bisti Coal 6-1 well site; see attached Field Sheet and Site Photographs.
- 8) Once the earthen pit is removed to visual extents of contamination, a five (5)-point composite sample will be collected from directly below the liner(s) or at native soil. Additional discrete samples will be collected from any area that is wet, discolored, or show other evidence of a release. All samples being collected will be analyzed for benzene and total BTEX via USEPA Method 8021B, TPH via USEPA Method 418.1, and chlorides via USEPA 300.1, as in accordance with 19.15.17.13 Subsection C Paragraph (3) NMAC.

On September 4, 2009, a five (5)-point composite sample was collected of native soil beneath the earthen pit and analyzed in the field for total petroleum hydrocarbons (TPH) via USEPA Method 418.1, and analyzed in the laboratory for benzene and BTEX via USEPA Method 8021B and for total chlorides via USEPA Method 4500B. The sample returned results below the 100 mg/kg TPH standard, the 0.2 mg/kg benzene standard, the 50 mg/kg BTEX standard and the 250 mg/kg total chloride standard, confirming that a release did NOT occur.

NAME	Benzene	BTEX	Chlorides	TPH
Pit Rule	0.2 mg/kg	50 mg/kg	250 mg/kg	100 mg/kg
Standard				
Earth Pit Comp 1'	< 0.0009 mg/kg	0.0282 mg/kg	300 mg/kg	16 mg/kg
Below Pit				
Background	NS	NS	145 mg/kg	NS

- 9) Depending on soil sample results the area will be either backfilled or the area will be excavated.
 - 1) If soil samples do not exceed the regulatory standards of 0.2 mg/kg benzene, 50 mg/kg BTEX, 100 mg/kg TPH, and 250 mg/kg or background concentration of chlorides, as in accordance with 19.15.17.13 Subsection C Paragraph (3) NMAC.

Elm Ridge Exploration
East Bisti Coal 6-1
Earth Pit Closure
Project No. 03056-0197
Closure Date: 9/4/09

i. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, shall submit a Form C-141 with the laboratory results so that the division may review the results to determine if additional delineation is required in accordance with Paragraph (4) of Subsection C of 19.15.17.13 NMAC.

Completed Form C-141 is attached for your review.

ii. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will backfill the excavation or impacted area with non-waste containing, earthen material, in accordance with 19.15.17.13 Subsection E Paragraph (6) NMAC. A soil cover shall be installed for all backfilled excavations consisting of the background thickness of topsoil or one (1) foot of suitable material to establish vegetation at the site, whichever is greater in accordance with Subsections H of 19.15.17.13 NMAC. The operator shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

Elm Ridge Exploration has backfilled the excavated area with non-waste containing earthen material, and installed a soil cover of at least one (1) foot thick of suitable material to establish vegetation at this site. The soil cover has been graded in such a way that it conforms to the grade of the natural surroundings, and will prevent ponding of water and erosion of the cover material; see Site Photographs.

iii. All areas of the well site that are no longer utilized on a day to day basis for the production of oil and/or gas, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will substantially restore, recontour and re-vegetate the areas, in accordance with 19.15.17.13 Subsections G and I NMAC. The operator shall notify the division when it has been re-seeded and when it has achieved successful re-vegetation.

Elm Ridge Exploration has restored, recontoured and re-seeded the excavated area in accordance with BLM standards as outlined in the Memorandum of Understanding (MOU).

2) If soil samples exceed the regulatory standards stated above:

i. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, shall submit a Form C-141 with the laboratory results so that the division may review the results to determine if additional delineation is required in accordance with Paragraph (4) of Subsection C of 19.15.17.13 NMAC.

The five (5)-point composite sample of native soil beneath the earthen pit returned results below the 100 mg/kg TPH standard, the 0.2 mg/kg benzene standard, the 50 mg/kg BTEX standard and the 250 mg/kg above background total chloride standard, confirming that a release did NOT occur.

Elm Ridge Exploration East Bisti Coal 6-1 Earth Pit Closure Project No. 03056-0197 Closure Date: 9/4/09

10) Elm Ridge Exploration will submit a closure report within 60 days following the earthen pit closure. The closure report will consist of a form C-144 with all supporting data and a form C-141 with all supporting data. The supporting data will include proof of closure notice to the surface owner and the OCD, confirmation sampling analytical results, a site diagram, soil backfilling and cover installation, revegetation rates, re-seeding techniques, and site reclamation photo documentation if applicable, along with all other information related to the onsite activities.

See attached C-144 Closure Form and attached Form C-141 Release Notification Form. Closure report has been submitted prior to November 4, 2009.



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FAQs

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Search Results

Label/Receipt Number: 7007 1490 0000 5398 9343 Service(s): Certified Mail

Status: Delivered

Your item was delivered at 10:11 AM on August 26, 2009 in

FARMINGTON, NM 87401.

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	4. Restricted Deliver	y? (Extre Fee)
Formington, NM 87401	2. Service Type K Certified Mail Registered insured Mail	Ret Rept. □ Propress Mail □ Return Receipt □ C.O.D.
Mr. Mark Kelly Bureau of Land Management 1235 La Plata Highway, Ste. A		- © E17 <u>E</u> 13 1 9:2 7 2900
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ENDER: COMPLETE THIS SECURIN	COMPLETE THIS SE	CTION ON DELIVER

7007 1490 0000 5398 9343 Domestic Return Receipt

PS Form 3811, February 2004

ION ON DELIVERY



August 24, 2009

Project No. 03056-0194

Phone: (505) 599-8900

Mr. Mark Kelly Bureau of Land Management 1235 La Plata Highway, Suite A Farmington, New Mexico 87401

RE: CARSON UNIT 15 COM 323 EARTH PIT CLOSURE NOTIFICATION

Dear Mr. Kelly,

Please accept this letter and attached Sundry Notice as the necessary surface owner notification for earth pit closure activities at the Carson Unit 15 COM 323 well site, owned and operated by Elm Ridge Exploration. The Carson Unit 15 COM 323 well site is located in Unit K, Section 15, Township 25N, Range 12W, San Juan County, New Mexico. Closure activities are scheduled to begin on August 31, 2009 and continue through September 4, 2009.

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,

46

James McDaniel
Project Scientist

jmcdaniel@envirotech-inc.com

ENVIROTECH, INC

Enclosure:

Sundry Notice

Cc:

Client File No. 03056

Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

BUR	CEAU OF LAND MAN		5. Lease Serial No. NM-070322					
Do not use this	NOTICES AND REPO form for proposals : Use Form 3160-3 (A	<u>s.</u>	6. If Indian, Allottee or Tribe Name					
SUBM	T IN TRIPLICATE Other	r Instructions on	page 2.		7. If Unit of CA/Agr	eement, N	ame and/or No.	
I. Type of Well Oil Well Ges V	Well Other				8. Well Name and N Carson Unit 15 CO	0.		
2. Name of Operator Elm Ridge Exploration					9. API Well No. 30-045-27662			
3a. Address PO Box 156 Bloomfield, NM 87413		3b. Phone No. (505) 632-347	No. (include area code) 10. Field and Pool or Exploratory Area					
4. Location of Well (Footoge, Sec., T., 1610 FSL 1580 FWL, K-15-25M-12W, Lat. 36.3	R.M., or Survey Description 98354 long108.102552	l' '			11. Country or Parist San Juan County,	•		
12. CHEC	CK THE APPROPRIATE BO	X(ES) TO INDI	CATE NATURE	OF NOTIC	E, REPORT OR OTH	IER DAT	'A	
TYPE OF SUBMISSION			TYP	E OF ACT	ION			
Notice of Intent	Acidize Alter Casing	Deeper	n re Treat	=	uction (Start/Resume)		Water Shut-Off Well Integrity	
Subsequent Report	Casing Repair	New C	Construction	Reco	mplete	☑ ○	Other Closure of an Earth	
Final Abandonment Notice	Change Plans Convert to Injection	Plug a	nd Abandon	_ `	oorarily Abandon r Disposal		Pit	
Elm Ridge Exploration plans to begin Closure activities are scheduled to be a closure activities are activities activities activities are activities activities are activities activit	n closure activities for an e seing on Monday, August 3	earthen pit locat 31, 2009 and las	ed at the above at through Septa	e mentione ember 4, 2	d site. All formal no 009.	etifications	s have been made.	
14. I hereby certify that the foregoing is tri Ms. Army Mackey	1	Title Administra		ger				
	THIS SPACE				ICE USE			
Approved by		J						
			Title			Date		
Conditions of approval, if any, are attached that the applicant holds legal or equitable tit entitle the applicant to conduct operations the	le to those rights in the subject	not warrant or cort t lease which woul	d Office					
Title 18 U.S.C. Section 1001 and Title 43 I	ISC Section 1212 make it a	crime for any nem	on knowingly and	willfully to	make to any departme	nt or seems	w of the United States and false	

fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and grantingapproval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

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August 4, 2009

Project No. 03056-0241

Mr. Brad Jones
New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

Phone (505) 476-3487

RE: EARTH PIT CLOSURE NOTIFICATIONS AND PROPOSED CLOSURE SCHEDULE

Dear Mr. Jones,

Envirotech, Inc., on the behalf of Elm Ridge Exploration, would like to submit this notification to begin closure activities at the below mentioned locations. Attached to this document is a proposed closure schedule for the months of August and September of 2009. Should this schedule be approved by your office, closure activities will begin as scheduled, with surface owner notifications being made at a minimum of 24 hours prior to the beginning of closure activities and a maximum of one (1) week prior to closure activities. Additional closure notifications and schedules will be made prior to beginning any closure activities. This letter will act as the closure notification for the following sites:

Bisti Coal 20-2	Bisti Coal 6-1	Bisti Coal 6-2	Bisti Coal 7-1
Bisti Coal 7 COM 2	Bisti Coal 8 COM 1	Bisti Coal 8L COM 2	Bisti Coal 9-1
Bisti Coal 9 COM 2	Bisti Coal 21-1	Bisti Coal 21 COM 2	Bisti Coal 22-2
Bisti Coal 28-1	Bisti Coal 29-1	Bisti Coal 29-2	Bisti Coal 30 COM 1
Bisti Coal 31-1	Bisti Coal 4-1	Bisti Coal 4 COM 2	Bisti Coal 5 COM 1
Bisti Coal 5K COM 2	Carson 10-332	Buena Suerte 3 G COM 1	Buena Suerte 3 L COM 1
Buena Suerte 32 G COM 1	East Bisti Coal 6-1	Buena Suerte 4 L COM 1	Carson Unit 15 COM 323
Carson Unit 206	Carson Unit 313	Pete Morrow 1	Pete Morrow 2
North Bisti Coal 32M COM 2	North Bisti Coal 31-1	Sam Jackson State COM 1	Jeter COM 2
West Bisti Coal 11 F COM 1	West Bisti Coal 12-1	West Bisti Coal 13-1	West Bisti Coal 11-2
West Bisti Coal 10-2	West Bisti Coal 15-1	West Bisti Coal 14 COM 1	West Bisti Coal 15-2
West Bisti Coal 22-2	West Bisti Coal 23-1	West Bisti Coal 22 COM 1	West Bisti Coal 24-1
West Bisti Coal 24 COM 2	West Bisti Coal 25-1	West Bisti Coal 25 2Y	Jicarilla Apache I-11
Sheila Hixon 1	Bisti Coal 16-2		_

Elm Ridge Exploration is proposing to close the earthen pits at the above listed well locations based on the attached closure schedule.

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,

ENVIROTE@H. INC

James McDaniel

Project Scientist

jmcdaniel@envirotech-inc.com

ELM RIDGE EXPLORATION

Administrative Manager

Mackey

Attachments: Closure Schedule

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 info@envirotech-inc.com envirotech-inc.com

August 2009

Sunday	Monday	Augus Tuesdav	August 2009	Thurs	Friday	Y.
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8	10 Blast Coel 20-2 Blast Coel 21-1 Blast Coel 21 COM 2 Blast Coel 22-2 Blast Coel 28-1	11 Bieti Coal 20-2 Bieti Coal 21-1 Bieti Coal 21 COM 2 Bieti Coal 22-2 Bieti Coal 28-1	12 Bieti Coal 20-2 Bieti Coal 21-1 Bieti Coal 21 COM 2 Bieti Coal 22-2 Bieti Coal 28-1	13 Bieti Coal 20-2 Bieti Coal 21-1 Bieti Coal 21 COM 2 Bieti Coal 22-2 Bieti Coal 28-1	14 Bisti Coel 20-2 Bisti Coel 21-1 Bisti Coel 21 COM 2 Bisti Coel 22-2 Bisti Coel 28-1	र्ट
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30	31 Carson 10-332 Buena Suerte 3 G COM 1 Buena Suerte 3 L COM 1 Buena Suerte 32 G COM 1 Buena Suerte 4 L COM 1 East Biet Coal 6-1 Carson Unit 15 COM 323 Carson Unit 206					

Sat	ഹ	12	19	26
Friday	4 Carson 10-332 Buens Suerte 3 G COM 1 Buens Suerte 3 L COM 1 Buens Suerte 3 L COM 1 Buens Suerte 4 L COM 1 East Bisti Coel 6-1 Carson Unit 15 COM 323 Carson Unit 206	Carson Unit 313 Perte Morrow 1 Perte Morrow 2 North Bistl Coel 32M COM 2 Sæm Jackson State COM 1 North Bistl Coel 31-1 Weet Bistl Coel 11 F COM 1	West Bistl Coal 12-1 West Bistl Coal 12-1 West Bistl Coal 11-2 West Bistl Coal 11-2 West Bistl Coal 14 COM 1 West Bistl Coal 15-1 West Bistl Coal 15-2 West Bistl Coal 22-2	West Bisti Coal 22 COM 1 West Bisti Coal 22 COM 1 West Bisti Coal 24-1 West Bisti Coal 24-1 West Bisti Coal 24 COM 2 West Bisti Coal 25-1 West Bisti Coal 25-1 Shella Hixon 1
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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Elm Ridge Exploration

Project #:

03056-0197

Sample No.:

- 1

Date Reported:

10/12/2009

Sample ID:

Earth Pit Comp @1' Below

Date Sampled: 9/4/2

9/4/2009

Sample Matrix:

Soil

Date Analyzed:

9/4/2009

Preservative:

Cool

Analysis Needed:

TPH-418.1

Condition:

Cool and Intact

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

Total Petroleum Hydrocarbons

16

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:

East Bisti Coal 6-1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Joshua Kirchner

Printed

James McDaniel

Printed



CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Cal. Date:

4-Sep-09

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
ТРН	100		
	200	201	
	500		
	1000		

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

nalyst

Joshua Kirchner

Print Name

Review

James McDaniel

Print Name



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	ElmRidge	Project #:	03056-0197
Sample ID:	Pit Composite	Date Reported:	09-10-09
Laboratory Number:	51 54 6	Date Sampled:	09-04-09
Chain of Custody:	7896	Date Received:	09-04-09
Sample Matrix:	Soil	Date Analyzed:	09-09-09
Preservative:	Cool	Date Extracted:	09-08-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
Benzene	ND	0.9	
Toluene	6.3	1.0	
Ethylbenzene	4.9	1.0	
p,m-Xylene	10.7	1.2	
o-Xylene	6.3	0.9	
Total BTEX	28.2		

ND - Parameter not detected at the stated detection limit.

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

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:

East Bisti Coal 6-1

Analyst

Mustre m Woodles
Review



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

39 - 150

46 - 148

32 - 160

46 - 148

46 - 148

Client:	N/A		Project #:		N/A
Sample ID:	09-09-BT QA/QC		Date Reported:		09-10-09 N/A
Laboratory Number:	51550		Date Sampled:		N/A N/A
Sample Matrix:	Soil		Date Received:		09-09-09
Preservative:	N/A		Date Analyzed:		BTEX
Condition:	N/A		Analysis:		BIEX
Benzene	2.0452E+006	2.0493E+006	0.2%	ND	0.1
Toluene `	1.9290E+006	1.9329E+006	0.2%	ND	0.1
Ethylbenzene	1.7270E+006	1.7305E+006	0.2%	ND	0.1
p,m-Xylene	4.4426E+006	4.4515E+006	0.2%	ND	0.1
o-Xylene	1.6575E+006	1.6608E+006	0.2%	ND	0.1
Benzene Toluene	ND ND	ND ND	0.0%	0 - 30% 0 - 30%	0.9 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

ND - Parameter not detected at the stated detection limit.

References:

Benzene

Toluene

Ethylbenzene

p,m-Xylene

o-Xylene

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

ND

ND

ND

ND

ND

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 51546, 51548, 51550, 51551, and 51555 - 51556.

50.0

50.0

50.0

100

50.0

Analyst

Review

49.5

49.1

48.5

102

46.3

99.0%

98.2%

97.0%

102%

92.6%



Chloride

Client:

Elm Ridge Pit Composite Project #:

03056-0197

Sample ID: Lab ID#:

51546

Date Reported:

09-11**-**09 09-04**-**09

Sample Matrix:

Soil Cool Date Sampled: Date Received:

09-04-09

Preservative: Condition:

Cool Intact Date Analyzed: Chain of Custody: 09**-**09-09 7896

Parameter

Concentration (mg/Kg)

Total Chloride

300

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:

East Bisti Coal 6-1.

Analyst

Mustur Walters Review



Chloride

Client: Sample ID: Lab ID#: Elm Ridge Background 51547 Project #:
Date Reported:
Date Sampled:

03056-0197 09-11-09

Lab ID#: Sample Matrix: Preservative: Condition:

Soil Cool Intact Date Received: Date Analyzed:

Chain of Custody:

09-04-09 09-04-09 09-09-09 7896

Parameter

Concentration (mg/Kg)

Total Chloride

145

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:

East Bisti Coal 6-1.

Analyst

/ Mustur Walters Review

CHAIN OF CUSTODY RECORD

Client: ELM R. 35 & Client Address:		F N	Project Name / Location:	ocation:	a (6-1				(1			ANA	ANALYSIS / PARAMETERS	/ PAR/	\MET	ERS				
::		8 5	Sample Name. Strubble Client No.: O3056-019-	SG-C	79167			Method 8015)	(Method 8021	Method 8260)	alsteM 8 noinA \	110111111111111111111111111111111111111	9\H djiw		(1.814	RIDE			looD ə	e Intact
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DATE FINISHED: 9/3	[09						LONG:	
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LEGAL ADD: UNIT:		SEC: 6		TWP: 🙈	SN	RNG: //W	J	PM: NMPM
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TEMPORARY PIT - GF BENZENE ≤ 0.2 mg/kg, B				N (8015) ≤ 50	0 mg/kg, TPH (4	418.1) ≤ 2500	mg/kg, CHL0	ORIDES ≤ 1000 mg/kg
PERMANENT PIT OR	BGT							
BENZENE ≤ 0.2 mg/kg, B	TEX ≤ 50 mg/	kg, TPH (418.1)) ≤ 100 mg/kg	g, CHLORID	ES ≤ 250 mg/kg			
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PERMANENT PIT OR 1	BGT							
BENZENE ≤ 0.2 mg/kg, B		kg, TPH (418.1) ≤ 100 mg/kį	g, CHLORID	ES ≤ 250 mg/kg			
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∆envirotech

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

Bill of Lading

MANIFEST #

34180

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added." DRIVER SIGNATURE DATE 9-3-04 JOB# 0 3056-0/97 **TRANSPORTING COMPANY** たら<u>Q</u> 78 12:45 2:0 TRK# TIME 74 951 NOTES: LXCMPT 78 75 COMPANY 4-4 ケーケ ケープ ケーカ BBLS ĺ 7 В О YDS F-22 20 F-23 F-21 F.22 GRID COMPLETE DESCRIPTION OF SHIPMENT Cont Soil 3 MATERIAL 2 DESTINATION LANDFARM EMPLOYEE: 2 ょ Elm Ridse 6# < POINT OF ORIGIN CHLORIDE TEST ₹ RESULTS LOAD

NAME JOHN MOSKING

COMPANY CONTACT DOME

COMPANY Elm Ribbe

PHONE 327-2711

NATE 9-9-69

SIGNATURE

Menvirotech

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

Bill of Lading

MANIFEST #

34181

DRIVER SIGNATURE _030 56-019-TRANSPORTING COMPANY ENFERED SEP 0 9 2009 9:25 78 1250 TIME 174/9:31 **を 2** TRK# 78 75 DATE 7-3-05 COMPANY 4-61 J アープ NOTES: 1 BBLS -١ YDS 7 $\tilde{\mathcal{U}}$ g 8 GRID COMPLETE DESCRIPTION OF SHIPMENT Clankill MATERIAL 3 Erm Kodse DESTINATION LANDFARM EMPLOYEE: ζ しまっ Z ζ POINT OF ORIGIN ENUNO tech CHLORIDE TEST PAINT FILTER RESULTS LOAD Š

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added."

COMPANY PIMPLYSE

PHONE 827-37/

COMPANY CONTACT DOME

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NAME LOSA

DATE OF CO

SIGNATURE

Senvirotech

Bill of Lading

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

34187

MANIFEST #_

DATE 9-04-09 JOB# 03056-0197

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TRANSPORTING COMPANY	DRIVER SIGNATURE	Chelmore 1	Colonia							9 2009	
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that no additional materials have been added."

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PHONE 327-27//

COMPANY CONTACT MILE

NAME John McKuner

SIGNATURE

8.04.09

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Elm Ridge Exploration East Bisti Coal 6-1 Sec 6, Twn 25N, Rge 11W Project No. 03056-0197

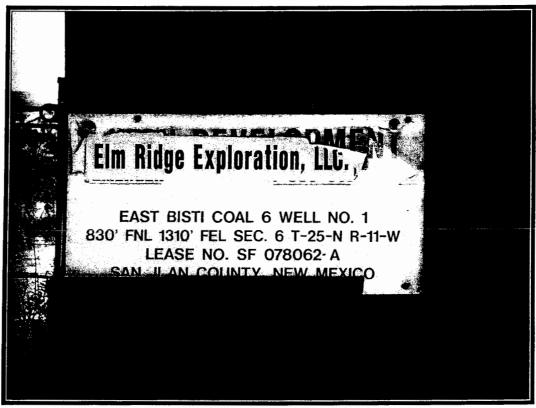


Photo 1: East Bisti Coal 6-1 Well Site

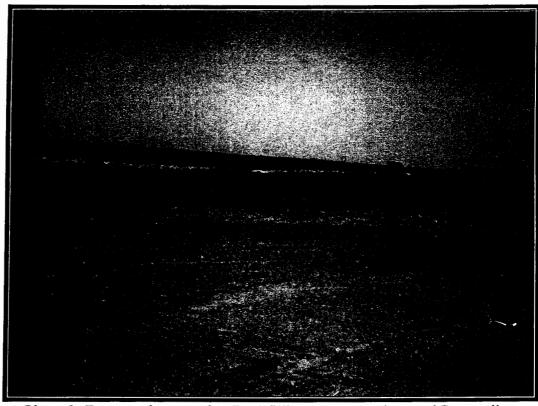


Photo 2: Excavated Area After Backfilling, Recontouring, and Re-seeding

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

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office. For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

Description Mathed Description Classes Discovering						
Proposed Alternative Method Permit or Closure Plan Application						
Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method						
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request						
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the						
environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.						
Operator: Elm Ridge Exploration OGRID #: 149052						
Address: P.O. Box 156; Bloomfield, NM 87413						
Facility or well name: East Bisti Coal 6-1						
API Number: 3004527871 OCD Permit Number:						
U/L or Qtr/Qtr A Section 6 Township 25N Range 11W County: San Juan						
Address: P.O. Box 156; Bloomfield, NM 87413 Facility or well name: East Bisti Coal 6-1 API Number: 3004527871 U/L or Qtr/Qtr A Section 6 Township 25N Range 11W County: San Juan Center of Proposed Design: Latitude 36.434595 Longitude -108.040485 NAD: 1927 1983						
Surface Owner: 🛛 Federal 🗌 State 🗌 Private 🗌 Tribal Trust or Indian Allotment						
2. ☑ Pit: Subsection F or G of 19.15.17.11 NMAC ☐ Ceased operation prior to June 16, 2008						
Temporary: Drilling Workover						
✓ Permanent ☐ Emergency ☐ Cavitation ☐ P&A						
☐ Lined ☐ Unlined Liner type: Thickness mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other						
☐ String-Reinforced						
☐ String-Reinforced Liner Seams: ☐ Welded ☐ Factory ☐ Other Volume: bbl Dimensions: L 6' x W 10' x D 4'						
☐ String-Reinforced Liner Seams: ☐ Welded ☐ Factory ☐ Other bbl Dimensions: L 6' x W 10' x D 4' 3.						
☐ String-Reinforced Liner Seams: ☐ Welded ☐ Factory ☐ Other						
String-Reinforced Liner Seams: ☐ Welded ☐ Factory ☐ Other Volume: bbl Dimensions: L 6' x W 10' x D 4' 3. ☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)						
String-Reinforced Liner Seams: Welded □ Factory □ Other Volume:						
String-Reinforced Liner Seams: Welded Factory Other Volume: bbl Dimensions: L 6' x W 10' x D 4' 3. Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) Drying Pad Above Ground Steel Tanks Haul-off Bins Other						
□ String-Reinforced Liner Seams: □ Welded □ Factory □ Other □ Volume: □ bbl Dimensions: L 6' x W 10' x D 4' 3. □ Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: □ P&A □ Drilling a new well □ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) □ Drying Pad □ Above Ground Steel Tanks □ Haul-off Bins □ Other □ Lined □ Unlined Liner type: Thickness □ mil □ LLDPE □ HDPE □ PVC □ Other □ Liner Seams: □ Welded □ Factory □ Other □ Other □ Liner Seams: □ Welded □ Factory □ Other □ Other □ Liner Seams: □ Welded □ Factory □ Other □ Other □ Other □ Liner Seams: □ Welded □ Factory □ Other □ Oth						
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□ String-Reinforced Liner Seams: □ Welded □ Factory □ Other □ Volume: □ bbl Dimensions: L 6' x W 10' x D 4' 3. □ Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: □ P&A □ Drilling a new well □ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) □ Drying Pad □ Above Ground Steel Tanks □ Haul-off Bins □ Other □ □ Lined □ Unlined Liner type: Thickness □ mil □ LLDPE □ HDPE □ PVC □ Other □ Liner Seams: □ Welded □ Factory □ Other □ 4. □ Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume: □ bbl Type of fluid:						
String-Reinforced Liner Seams:						
String-Reinforced Liner Seams:						
String-Reinforced Liner Seams:						
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String-Reinforced Liner Seams:						
String-Reinforced Liner Seams: Welded Factory Other Volume: bbl Dimensions: L 6' x W 10' x D 4' 3. Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) Drying Pad Above Ground Steel Tanks Haul-off Bins Other Liner Unlined Liner type: Thickness mil LLDPE HDPE PVC Other Liner Seams: Welded Factory Other 4. Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume: bbl Type of fluid: Tank Construction material Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls and liner Visible sidewalls only Other Liner type: Thickness mil HDPE PVC Other						

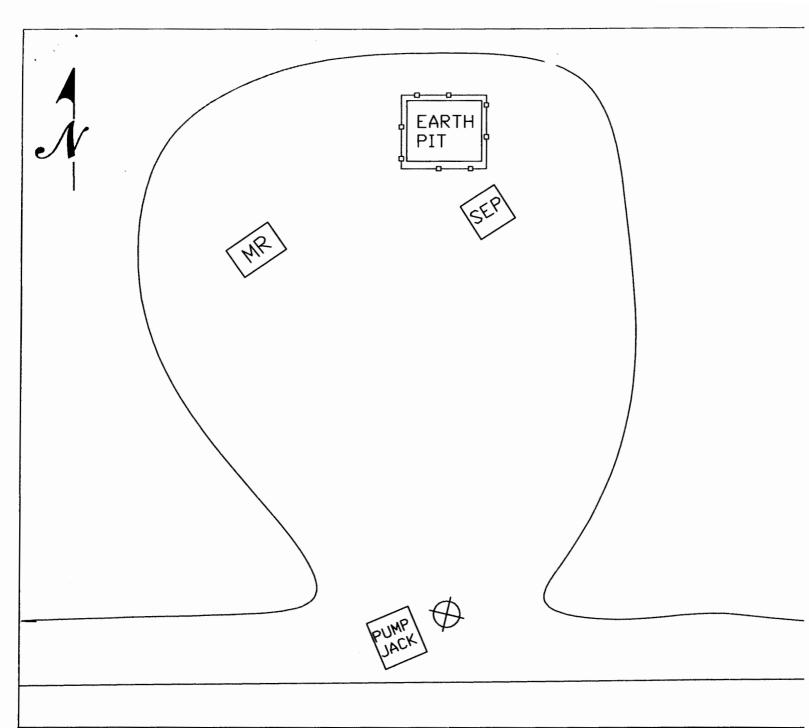
Form C-144

Fencing: Subsection D of 19.15.17.11 NMAC (Apr. es to permanent pits, temporary pits, and below-gra. anks)						
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital,						
institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet						
☐ Alternate. Please specify: 4' hogwire fencing with pipe railing						
7.						
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)						
□ Netting □ Other □ Monthly inspections (If netting or screening is not physically feasible)						
8. Signs: Subsection C of 19.15.17.11 NMAC						
☑ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers						
☑ Signed in compliance with 19.15.3.103 NMAC						
9. Administrative Approvals and Exceptions:						
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.						
Please check a box if one or more of the following is requested, if not leave blank:	. CC C					
Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau of consideration of approval.	office for					
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.						
10. Siting Criteria (regarding permitting): 19.15.17.10 NMAC						
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept	table source					
material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate of fice or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approximately approximate						
Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying						
above-grade tanks associated with a closed-loop system.						
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No					
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No					
lake (measured from the ordinary high-water mark).0.						
- Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks)	□ NA					
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image						
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	-					
 (Applies to permanent pits) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	☐ Yes ☐ No ☐ NA					
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock						
watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance						
adopted pursuant to NMSA 1978, Section 3-27-3, as amended.	☐ Yes ☐ No					
Within 500 feet of a wetland.						
Within the area overlying a subsurface mine.	☐ Yes ☐ No					
Within an unstable area.						
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	Yes No					
Within a 100-year floodplain FEMA map	☐ Yes ☐ No					
- LEVIC Map						
	☐ Yes ☐ No					

Temporary Pits, Emergency Pits, and Below-gr. Tanks Permit Application Attachment Checklis. Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number: (Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Erosion Control Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Disposal Facility Name:	Waste Removal Closure For Closed-loop Systen. hat Utilize Above Ground Steel Tanks or Haul-Lesins Only: (19.15.17.13. Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if							
Disposal Facility Name: Disposal Facility Permit Number:	facilities are required. Disposal Facility Name: Disposal Facility Permit Number:							
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations? Group Yes (If yes, please provide the information below) No Required for impacted areas which will not be used for future service and operations: Group Social Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection Got 19.15.17.13 NMAC Social Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection Got 19.15.17.13 NMAC Social Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection Got 19.15.17.13 NMAC Social Backfill and Cover Design Specifications - based upon the appropriate source material are provided below. Requests reparting changes to certain still provide the second state of the second state of the second seco								
Goli Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection of 19.15.17.13 NMAC	Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?							
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each stiting criteria requires a demonstration of composition to the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bareau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance. Ground water is less than 50 feet below the bottom of the buried waste. NM Office of the State Engineer - iWATERS databases search; USGS; Data obtained from nearby wells Ground water is between 50 and 100 feet below the bottom of the buried waste. NM Office of the State Engineer - iWATERS databases search; USGS; Data obtained from nearby wells Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site Within 300 feet for a permanent residence, school, hospital, institution, or church in existence at the time of initial application. NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site. Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 100 horizontal feet of any other fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 100 horizontal feet of any other fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 100 horizontal feet of any other fresh water well or spring that less than five households use for domestic or stock watering	Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC							
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☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC								

Operator Application Certification: I hereby certify that the information submitted with his application is true, accurate and complete to the best of	f In audades and balisf				
Name (Print): Name (Print): Ms. Amy Mackey Title: Administrati					
e-mail address: amackey1@elmridge.net Telephone: (505	6) 632-3467 Ext. 201				
20. OCD Approval: Permit Application (including closure plan) Closure Plan (only) COCD Condition	ions (see attachment)				
OCD Representative Signature:	pproval Date: Z/(0/10				
Title: Elvanuetat Eljack OCD Permit Number:					
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.					
☐ Closure Completion 1	Date				
22. Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Excavation approved plan, please explain.	aste Removal (Closed-loop systems only)				
23. Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings two facilities were utilized.	Steel Tanks or Haul-off Bins Only: were disposed. Use attachment if more than				
Disposal Facility Name: Disposal Facility Permit Nu	ımber:				
Disposal Facility Name: Disposal Facility Permit Nu	ımber:				
Were the closed-loop system operations and associated activities performed on or in areas that will not be used Yes (If yes, please demonstrate compliance to the items below) No	for future service and operations?				
Required for impacted areas which will not be used for future service and operations: Site Reclamation (Photo Documentation)					
☐ Soil Backfilling and Cover Installation ☐ Re-vegetation Application Rates and Seeding Technique					
24. <u>Closure Report Attachment Checklist</u> : <u>Instructions</u> : Each of the following items must be attached to the c mark in the box, that the documents are attached.	losure report. Please indicate, by a check				
Proof of Closure Notice (surface owner and division)					
Proof of Deed Notice (required for on-site closure)					
☐ Plot Plan (for on-site closures and temporary pits) ☐ Confirmation Sampling Analytical Results (if applicable)					
Waste Material Sampling Analytical Results (required for on-site closure)					
☐ Disposal Facility Name and Permit Number					
Soil Backfilling and Cover Installation					
Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)					
On-site Closure Location: Latitude Longitude	NAD: □1927 □ 1983				
25.					
Operator Closure Certification:					
I hereby certify that the information and attachments submitted with this closure report is true, accurate and conbelief. I also certify that the closure complies with all applicable closure requirements and conditions specified	nplete to the best of my knowledge and in the approved closure plan.				
Name (Print): Title:					
Signature: Date:					
e-mail address: Telephone:					



LEGEND

f 4' Tall Hogwire
Fencing

Berm

→ Well Head

SITE MAP ELM RIDGE EXPLORATION EAST BISTI COAL 6-1 SEC 6 TWN 25N RGE 11W

SAN JUAN COUNTY, NEW MEXICO

SCALE: NTS

PROJECT NOD3056-0136

FIGURE NO. A

REV

NO. DATE BY DESCRIPTION

MAP DRWN MDD 12/23/08 BASE DRWN

ENVIROTECH

5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615

EARTHEN PIT CLOSURE PLAN

SITE NAME:

EAST BISTI COAL 6-1
UNIT LETTER A, SECTION 6, TOWNSHIP 25N, RANGE 11W
SAN JUAN COUNTY, NEW MEXICO
LATITUDE 36.434595 LONGITUDE -108.040485

SUBMITTED TO:

MR. WAYNE PRICE
NEW MEXICO OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DRIVE
SANTA FE, NEW MEXICO 87505
(505) 476-3490

SUBMITTED BY:

MS. AMY MACKEY
ELM RIDGE EXPLORATION
P.O. BOX 156
BLOOMFIELD, NEW MEXICO 87413
(505) 632-3476 EXT. 201

JANUARY 2009

EARTHEN PIT CLOSURE PLAN ELM RIDGE EXPLORATION EAST BISTI COAL 6-1 SAN JUAN COUNTY, NEW MEXICO

TABLE OF CONTENTS

INTRODUCTION	. 1
SCOPE OF CLOSURE ACTIVITIES	. 1
REPORTING	. 3

Introduction

Elm Ridge Exploration would like to submit a closure plan for the earthen pit at the East Bisti Coal 6-1 well site located in the NE ¼ NE ¼ of Section 6, Township 25N, Range 11W, San Juan County, New Mexico. This closure plan has been prepared in conformance with the closure requirements of 19.15.17.13 NMAC.

SCOPE OF CLOSURE ACTIVITIES

The purpose of this closure plan is to provide the details of activities involved in the closure of the permanent unlined pit at the East Bisti Coal 6-1 well site. The following scope of closure activities has been designed to meet this objective:

- 1) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close all former earthen pits prior to the closure date agreed upon by the New Mexico Oil Conservation Division of December 31, 2009.
- 2) In accordance with of Subsection A of 19.15.17.13 NMAC, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close any earthen pits at a date the division requires because of imminent danger to fresh water, public health or the environment.
- 3) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close earthen pits first which seem to pose a greater risk to fresh water, public health, or the environment. This will be determined by the locations proximately to surface water sources and distance to groundwater.
- 4) No less than 60 days prior to any earthen pit closure activities, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the Santa Fe NMOCD office as well as a schedule of on-site activities, as in accordance with 19.15.17.13 Subsection J Paragraph (3) NMAC.
- 5) No less than 24 hours and no greater than one (1) week prior to earthen pit removal Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the appropriate surface owner as well as a schedule of on-site activities, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the surface owner by certified mail, return receipt requested, that the operator plans to close a earthen pit. The return receipt will be used to ensure that the surface owner has received written notification no less than 24 hours and no greater than one (1) week prior to the beginning of BGT closure activities. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this Closure activities that will take place on tribal land will have requirement. notifications sent by certified mail, return receipt requested, to the appropriate tribal Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the Bureau of Land Management (BLM) of closure activities for wells located on federal land per a Sundry Notice, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. All notices will be sent in such a way that the surface owner received notice at least 24 hours prior to the beginning of

closure activities.

- 6) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all liquids, and/or sludge, to visual extents, prior to closure sampling. Material will be disposed of at Envirotech's Landfarm #2, Permit # NM-01-0011, TNT Environmental Inc. Landfarm, Permit # NM-01-0008, Industrial Ecosystems Inc. (IEI) Landfarm, Permit # NM-01-0010B or Basin Disposal, Permit # NM-01-0005, depending on the consistence of the material removed, as in accordance with 19.15.17.13 Subsection C Paragraph (1) NMAC.
- 7) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all on-site equipment associated with this earthen pit unless it is required for some other purpose, as in accordance with 19.15.17.13 Subsection C Paragraph (2) NMAC. The equipment that meets the requirements of 19.15.9.712 Subsection A NMAC and 19.15.9.712 Subsection D Paragraph (1) will be disposed of at San Juan County Regional Landfill. Waste that is classified by 19.15.9.712 Subsection D Paragraph (2) will be sampled accordingly to determine acceptance of this material at the San Juan County Regional Landfill. Waste that is unable to be accepted at the San Juan County Regional Landfill will be submitted to the OCD on a case-by-case basis in accordance with Paragraph (3) of Subsection D of 19.15.9.712.
- 8) Once the earthen pit is removed to visual extents of contamination, a five (5) point composite sample will be collected from directly below the liner(s) or at native soil. Additional discrete samples will be collected from any area that is wet, discolored or show other evidence of a release. All samples being collected will be analyzed for benzene, and total BTEX via USEPA Method 8021B, TPH via USEPA Method 418.1, and chlorides via USEPA 300.1, as in accordance with 19.15.17.13 Subsection C Paragraph (3) NMAC.
- 9) Depending on soil sample results the area will be either backfilled or the area will be excavated.
 - a. If soil samples do not exceed the regulatory standards of 0.2 mg/kg benzene, 50 mg/kg BTEX, 100 mg/kg TPH, and 250 mg/kg or background concentration of chlorides, as in accordance with 19.15.17.13 Subsection C Paragraph (3) NMAC.
 - i. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, shall submit a Form C-141 with the laboratory results so that the division may review the results to determine if additional delineation is required in accordance with Paragraph (4) of Subsection C of 19.15.17.13 NMAC.
 - ii. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will backfill the excavation or impacted area with non-waste containing, earthen material, in accordance with 19.15.17.13 Subsection E Paragraph (6) NMAC. A soil cover shall be installed for all backfilled excavations consisting of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater in accordance with Subsections H of 19.15.17.13 NMAC. The operator shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.
 - iii. All areas of the well site that are no longer utilized on a day to day basis for the production of oil and/or gas, Elm Ridge Exploration, or a

contractor acting on behalf of Elm Ridge Exploration, will substantially restore, recontour and re-vegetate the areas, in accordance with 19.15.17.13 Subsections G and I NMAC. The operator shall notify the division when it has re-seed and when it has achieved successful re-vegetation. For re-vegetation methods, please see attached re-vegetation plan.

b. If soil samples exceed the regulatory standards stated above.

- i. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, shall submit a Form C-141 with the laboratory results so that the division may review the results to determine if additional delineation is required in accordance with Paragraph (4) of Subsection C of 19.15.17.13 NMAC.
- ii. Activities beyond this point will be in accordance with 19.15.3.116 NMAC and 19.15.11.19 NMAC.

REPORTING

Elm Ridge Exploration will submit a closure report within 60 days following the earthen pit closure. The closure report will consist of a form C-144 with all supporting data and a form C-141 with all supporting data. The supporting data will include proof of closure notice to the surface owner and the OCD, confirmation sampling analytical results, a site diagram, soil backfilling and cover installation, re-vegetation rates, re-seeding techniques, and site reclamation photo documentation if applicable, along with all other information related to the onsite activities.

We appreciate the opportunity to be of service. If you have any questions or require further information, please do not hesitate to contact our office at (505) 632-3476 Ext. 201.

Respectfully Submitted:

Elm Ridge Exploration

/1

Elm Ridge Exploration

Elm Ridge Exploration

Re-Seeding Techniques and Seed Mixture Ratios

These applied practices by Elm Ridge Exploration will at a minimum comply with the New Mexico Oil Conservation Divisions rule 19.15.17.13, Subsection I NMAC Elm Ridge Exploration has adopted these re-seeding application techniques, ratios, and mixtures as their standard operating procedures.

- The first growing season after closure of a below grade tank or pit, all areas of the well site not
 utilized for the production of oil and/or gas on a daily basis will be re-seeded with the specified
 seed mixture.
- The seed mixture used will be certified with no primary or secondary noxious weeds in seed mixtures. The seed labels from each bag shall be available for inspection while seed is being sown.
- 3. The operator shall accomplish seeding by drilling on the contour whenever practical or by other division-approved methods. The operator shall obtain vegetative cover that equals 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.
- 4. Hand seeding with hydro-mulch, excelsior netting, or mulch with netting is required on the cut/fill slopes. Mulch will be spread at a rate of 2,000-3,000 pounds per acre.
- 5. Compacted areas determined by visual inspection will be ripped to a depth of 12 inches below ground surface and disked to a depth of six (6) inches before seeding. Seeding shall be done with a disk type drill with two (2) boxes for various seed sizes. The drill rows shall be eight (8) to ten (10) inches apart. Seed shall be planted at no less than one-half (1/2) inch deep or more than one (1) inch deep. The seeder shall be followed with a drag, packer, or roller to ensure uniform coverage of the seed and adequate compaction. Drilling shall be done on the contour where possible, but not up and down the slope.
- 6. Where slopes are too steep for contour drilling a hand seeder shall be used. Seed shall be covered to the depth stated above by whatever means is practical. If the seed is unable to be covered by the means listed above, the prescribed seed mixture amount will be doubled.
- 7. Elm Ridge Exploration shall repeat seeding or planting until it successfully achieves the required vegetative cover of 70% of the native perennial vegetation cover.

- 8. Upon abandonment of a well site, if the retention of the access road is not considered necessary for the management and multiple uses of the natural resources, or by the surface owner, it will be ripped a minimum of 12 inches in depth. After ripping, water bars will be installed. All ripped surfaces are to be protected from vehicular travel by construction of a dead end ditch and earthen barricade at the entrance to these ripped areas. Re-seeding of areas affected by the ditch and barriers will be re-seeded if necessary.
- 9. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will inform the division once successful re-vegetation has occurred.

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

Form C-141 Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 RECEIVED O Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

			Rele	ease Notific	ation	and Co	orrective A	ction '	j\ 1	1. 14			
						OPERA	ГOR	\boxtimes	Initi	al Report		Final I	Report
Name of Company: Elm Ridge Exploration						Contact: An	ny Mackey						
Address: PO Box 156, Bloomfield, NM 87413					No.: (505) 632-3	476 Ext 20	1						
Facility Nar	ne: East B	isti Coal 6-1				Facility Typ	e: Gas Well						
Surface Owner: Federal Mineral Owner:				wner:			L	ease N	No.: SF-07	8062-	A		
54-A				LOCA	TION	N OF REI	LEASE						
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/West	Line	County			
A	6	25N	11W	830		FNL	1300	FEL.		San Juan			
				Latitude: 36.	.435066	Longitud	le: -108.040664						
				NAT	URE	OF RELI	EASE						
Type of Rele							Release: Unknow			Recovered:			
Source of Re	lease: Earth	n Pit					lour of Occurrenc	rence: Date and Hour of Discovery: NA			: NA		
Was Immedi	ate Notice (Given?				Historical If YES, To	Whom?						
was militedi	ate Notice (Yes [] No 🛛 Not Re	quired	11 11.5, 10	WHOIII:						
By Whom?						Date and H	lour						
Was a Water	course Read					If YES, Volume Impacting the Watercourse.							
•			Yes 🗵	No									
If a Watercou	ırse was Im	pacted, Descr	ibe Fully.*	•									
		em and Reme											
		is well at the r	nentioned	location formerly	dischar	ged into an ea	arthen pit on locat	ion. The we	ell has	been altered	l to no	longer di	rain
into an earth	en pit.												
		and Cleanup A											
				d approximately s									
				proximately one (EPA Method 418.1									
				The sample returns									
				firming that a rele								,	
				is true and comp									
regulations a	ll operators	are required	o report ar	nd/or file certain re	elease no	otifications a	nd perform correc	tive actions	for rel	eases which	may e	ndanger	
				ce of a C-141 reporting investigate and re									
or the enviro	nment. In a	iddition. NMC	occeptations accept	stance of a C-141	report de	oes not reliev	e the operator of i	responsibilit	u wate v for c	ompliance w	with an	unan nea v other	11011
federal, state	or ocal lav	ws and/or regu	ulations.				· · · · · · · · · · · · · · · · · · ·						
	V	/ (OIL CONS	<u>SERVAT</u>	<u>ION</u>	DIVISIO	<u>NC</u>		
Signature:	1/	/		_									
Signature.	\mathcal{I}	- 1 -				Annroved by	District Supervise	or.					
Printed Name	e: Ms. Amy	Mackey				Approved by	District Supervisor	or.					
Title: Admin	istrative Ma	anager				Approval Dat	te:	Expi	ration	Date:			
E-mail Addre	ess: amacke	y1@elmridge	e.net			Conditions of	f Approval:						
							A I			Attached	1 📙		
Date: 0	28 6	<u> </u>		05-632-3476 Ext 2	201								
Attach Addi	tional She	ets If Necess	ary										

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

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

District Office.
Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application
Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank, or alternative request
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations, or ordinances.
Operator: Elm Ridge Exploration OGRID #: 149052
Address: P.O. Box 156; Bloomfield, NM 87413
Facility or well name: East Bisti Coal 6-1
API Number: 3004527871 OCD Permit Number:
U/L or Qtr/Qtr A Section 6 Township 25N Range 11W County: San Juan
Center of Proposed Design: Latitude <u>36.435066</u> Longitude <u>-108.040664</u> NAD: □1927 ⊠ 1983
Surface Owner: Federal State Private Tribal Trust or Indian Allotment
2. ☑ Pit: Subsection F or G of 19.15.17.11 NMAC
Temporary: Drilling Workover
☐ P&A
☐ Lined ☐ Unlined Liner type: Thickness mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
□ String-Reinforced
Liner Seams: Welded Factory Other Volume: bbl Dimensions: L 12' x W 12' x D 5'
3.
Closed-loop System: Subsection H of 19.15.17.11 NMAC
Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Liner Seams: Welded Factory Other
4.
Below-grade tank: Subsection 1 of 19.15.17.11 NMAC
Volume:bbl Type of fluid:
Tank Construction material:
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Not labeled
Liner type: Thickness mil
5.
☐ Alternative Method:

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks) Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify	hospital,			
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks) Screen Netting Other Monthly inspections (If netting or screening is not physically feasible)				
Signs: Subsection C of 19.15.17.11 NMAC ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers ☐ Signed in compliance with 19.15.3.103 NMAC				
Administrative Approvals and Exceptions: Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance. Please check a box if one or more of the following is requested, if not leave blank: Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office for			
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.				
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No			
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No			
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No			
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No			
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No			
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.	☐ Yes ☐ No			
Within 500 feet of a wetland.	☐ Yes ☐ No			
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No			
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	☐ Yes ☐ No			
Within a 100-year floodplain. FEMA map	☐ Yes ☐ No			

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC
and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number:
Treviously Approved Design (attach copy of design) The Frances.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number:
☐ Previously Approved Operating and Maintenance Plan API Number: (Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16. Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13. Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if						
facilities are required.						
Disposal Facility Name: Disposal Facility Permit Number:	_					
Disposal Facility Name: Disposal Facility Permit Number:						
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations? Yes (If yes, please provide the information below) No						
Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	AC .					
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable son provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate disconsidered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Just demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	trict office or may be					
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA					
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA					
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA					
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No					
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No					
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No					
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No					
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	☐ Yes ☐ No					
Within a 100-year floodplain FEMA map	☐ Yes ☐ No					
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved) Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC						

19.					
Operator Application Certification:					
I hereby certify that the information submitted with this application is true, accur	ate and complete to the best of my knowledge and belief.				
Name (Print):	Title:				
Signature:	Date:				
E-mail address:	Telephone:				
20. OCD Approval: Permit Application (including closure plan) Closure P	lan (only) OCD Conditions (see attachment)				
OCD Representative Signature:	Approval Date:				
Title:	OCD Permit Number:				
Closure Report (required within 60 days of closure completion): Subsection Instructions: Operators are required to obtain an approved closure plan prior The closure report is required to be submitted to the division within 60 days of section of the form until an approved closure plan has been obtained and the content to the division within 60 days of section of the form until an approved closure plan has been obtained and the content to the division within 60 days of section of the form until an approved closure plan has been obtained and the content to the division within 60 days of closure completion):	to implementing any closure activities and submitting the closure report. the completion of the closure activities. Please do not complete this losure activities have been completed.				
	☐ Closure Completion Date: 9/4/09				
22. Closure Method: Waste Excavation and Removal □ On-Site Closure Method □ Altern □ If different from approved plan, please explain.	ative Closure Method Waste Removal (Closed-loop systems only)				
Closure Report Regarding Waste Removal Closure For Closed-loop Systems Instructions: Please indentify the facility or facilities for where the liquids, dri two facilities were utilized. Disposal Facility Name: Envirotech Landfarm #2	lling fluids and drill cuttings were disposed. Use attachment if more than				
Disposal Facility Name:					
Yes (If yes, please demonstrate compliance to the items below) No	in a cas that with not be used for ruture service and operations.				
Required for impacted areas which will not be used for future service and operat Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ions:				
24.					
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) See Attached Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) See Attached Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Envirotech Landfarm #2, NM-01-0011 Soil Backfilling and Cover Installation See Attached Re-vegetation Application Rates and Seeding Technique Pursuant to the BLM MOU Site Reclamation (Photo Documentation) See Attached On-site Closure Location: Latitude Longitude NAD: 1927 1983					
25.					
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complete with all applicable closure requirements and conditions specified in the approved closure plan.					
Name (Print): Ms. Amy Mackey	Title: Administrative Manager				
Signature:	Date: 10 28 07				
E-mail address amackey1@elmridge.net	Telephone: (205) 632-3476 201				

Earthen Pit Closure Checklist

- Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close all former earthen pits prior to the closure date agreed upon by the New Mexico Oil Conservation Division (NMOCD) of December 31, 2009.
 Closure date for the earth pit located at East Bisti Coal 6-1 well site is September 4, 2009.
- 2) In accordance with Subsection A of 19.15.17.13 NMAC, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close any earthen pits at a date the division requires because of imminent danger to fresh water, public health or the environment.
 - None of the earthen pits to be closed by Elm Ridge Exploration are deemed an imminent risk to the environment, public health, or to fresh or public water.
- 3) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close earthen pits first which seem to pose a greater risk to fresh water, public health, or the environment. This will be determined by the locations proximity to surface water sources and distance to groundwater.
 - None of the earthen pits to be closed by Elm Ridge Exploration are deemed an imminent risk to the environment, public health, or to fresh or public water.
- 4) No less than 60 days prior to any earthen pit closure activities, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the Santa Fe NMOCD office as well as a schedule of on-site activities, as in accordance with 19.15.17.13 Subsection J Paragraph (3) NMAC. Notification was provided to Mr. Brad Jones of the NMOCD Santa Fe Office on August 4, 2009, along with a schedule of on-site activities; see attached Notification Letter.
- 5) No less than 24 hours and no greater than one (1) week prior to earthen pit removal, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the appropriate surface owner as well as a schedule of on-site activities, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the surface owner by certified mail, return receipt requested, that the operator plans to close an earthen pit. The return receipt will be used to ensure that the surface owner has received written notification no less than 24 hours and no greater than one (1) week prior to the beginning of earth pit closure activities. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this Closure activities that will take place on tribal land will have requirement. notifications sent by certified mail, return receipt requested, to the appropriate tribal Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the Bureau of Land Management (BLM) of closure activities for wells located on federal land per a Sundry Notice, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. All notices will be sent in such a way that the surface owner will receive notice at least 24 hours prior to the beginning of closure activities.

Notification was provided to the Bureau of Land Management on August 26, 2009; see attached Sundry Notice and Return Receipt.

6) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all liquids and/or sludge, to visual extents, prior to closure sampling. Material will be disposed of at Envirotech's Landfarm #2, Permit # NM-01-0011, TNT Environmental Inc. Landfarm, Permit # NM-01-0008, Industrial Ecosystems Inc. (IEI) Landfarm, Permit # NM-01-0010B, or Basin Disposal, Permit # NM-01-0005, depending on the consistence of the material removed, as in accordance with 19.15.17.13 Subsection C Paragraph (1) NMAC.

On August 31, 2009 through September 4, 2009, approximately 64 cubic yards of production sludge was removed from the earthen pit and disposed of at Envirotech's NMOCD permitted soil remediation facility, Landfarm #2, Permit # NM-01-0011; see attached *Bill of Lading*.

7) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all on-site equipment associated with this earthen pit unless it is required for some other purpose, as in accordance with 19.15.17.13 Subsection C Paragraph (2) NMAC. The equipment that meets the requirements of 19.15.9.712 Subsection A NMAC and 19.15.9.712 Subsection D Paragraph (1) will be disposed of at San Juan County Regional Landfill. Waste that is classified by 19.15.9.712 Subsection D Paragraph (2) will be sampled accordingly to determine acceptance of this material at the San Juan County Regional Landfill. Waste that is unable to be accepted at the San Juan County Regional Landfill will be submitted to the OCD on a case-by-case basis in accordance with Paragraph (3) of Subsection D of 19.15.9.712.

All on-site equipment will be used for the continued operation of the East Bisti Coal 6-1 well site; see attached *Field Sheet* and *Site Photographs*.

8) Once the earthen pit is removed to visual extents of contamination, a five (5)-point composite sample will be collected from directly below the liner(s) or at native soil. Additional discrete samples will be collected from any area that is wet, discolored, or show other evidence of a release. All samples being collected will be analyzed for benzene and total BTEX via USEPA Method 8021B, TPH via USEPA Method 418.1, and chlorides via USEPA 300.1, as in accordance with 19.15.17.13 Subsection C Paragraph (3) NMAC.

On September 4, 2009, a five (5)-point composite sample was collected of native soil beneath the earthen pit and analyzed in the field for total petroleum hydrocarbons (TPH) via USEPA Method 418.1, and analyzed in the laboratory for benzene and BTEX via USEPA Method 8021B and for total chlorides via USEPA Method 4500B. The sample returned results below the 100 mg/kg TPH standard, the 0.2 mg/kg benzene standard, the 50 mg/kg BTEX standard and the 250 mg/kg total chloride standard, confirming that a release did NOT occur.

NAME	Benzene	BTEX	Chlorides	ТРН
Pit Rule	0.2 mg/kg	50 mg/kg	250 mg/kg	100 mg/kg
Standard				
Earth Pit Comp 1'	< 0.0009 mg/kg	0.0282 mg/kg	300 mg/kg	16 mg/kg
Below Pit				
Background	NS	NS	145 mg/kg	NS

- 9) Depending on soil sample results the area will be either backfilled or the area will be excavated.
 - 1) If soil samples do not exceed the regulatory standards of 0.2 mg/kg benzene, 50 mg/kg BTEX, 100 mg/kg TPH, and 250 mg/kg or background concentration of chlorides, as in accordance with 19.15.17.13 Subsection C Paragraph (3) NMAC.

Elm Ridge Exploration East Bisti Coal 6-1 Earth Pit Closure Project No. 03056-0197 Closure Date: 9/4/09

i. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, shall submit a Form C-141 with the laboratory results so that the division may review the results to determine if additional delineation is required in accordance with Paragraph (4) of Subsection C of 19.15.17.13 NMAC.

Completed Form C-141 is attached for your review.

ii. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will backfill the excavation or impacted area with non-waste containing, earthen material, in accordance with 19.15.17.13 Subsection E Paragraph (6) NMAC. A soil cover shall be installed for all backfilled excavations consisting of the background thickness of topsoil or one (1) foot of suitable material to establish vegetation at the site, whichever is greater in accordance with Subsections H of 19.15.17.13 NMAC. The operator shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

Elm Ridge Exploration has backfilled the excavated area with non-waste containing earthen material, and installed a soil cover of at least one (1) foot thick of suitable material to establish vegetation at this site. The soil cover has been graded in such a way that it conforms to the grade of the natural surroundings, and will prevent ponding of water and erosion of the cover material; see Site Photographs.

iii. All areas of the well site that are no longer utilized on a day to day basis for the production of oil and/or gas, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will substantially restore, recontour and re-vegetate the areas, in accordance with 19.15.17.13 Subsections G and I NMAC. The operator shall notify the division when it has been re-seeded and when it has achieved successful re-vegetation.

Elm Ridge Exploration has restored, recontoured and re-seeded the excavated area in accordance with BLM standards as outlined in the Memorandum of Understanding (MOU).

- 2) If soil samples exceed the regulatory standards stated above:
 - i. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, shall submit a Form C-141 with the laboratory results so that the division may review the results to determine if additional delineation is required in accordance with Paragraph (4) of Subsection C of 19.15.17.13 NMAC.

The five (5)-point composite sample of native soil beneath the earthen pit returned results below the 100 mg/kg TPH standard, the 0.2 mg/kg benzene standard, the 50 mg/kg BTEX standard and the 250 mg/kg above background total chloride standard, confirming that a release did NOT occur.

Elm Ridge Exploration East Bisti Coal 6-1 Earth Pit Closure Project No. 03056-0197 Closure Date: 9/4/09

10) Elm Ridge Exploration will submit a closure report within 60 days following the earthen pit closure. The closure report will consist of a form C-144 with all supporting data and a form C-141 with all supporting data. The supporting data will include proof of closure notice to the surface owner and the OCD, confirmation sampling analytical results, a site diagram, soil backfilling and cover installation, revegetation rates, re-seeding techniques, and site reclamation photo documentation if applicable, along with all other information related to the onsite activities.

See attached C-144 Closure Form and attached Form C-141 Release Notification Form. Closure report has been submitted prior to November 4, 2009.



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SENDER: COMPLETE THIS SECTION

- Complete Items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mallpiece, or on the front if space permits.
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Mr. Mark Kelly Bureau of Land Management 1235 La Plota Highway, Ste. A Formington, NM 87401

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Domestic Return Receipt

102595-02-M-154



August 24, 2009

Project No. 03056-0194

Mr. Mark Kelly Bureau of Land Management 1235 La Plata Highway, Suite A Farmington, New Mexico 87401

Phone: (505) 599-8900

RE: CARSON UNIT 15 COM 323 EARTH PIT CLOSURE NOTIFICATION

Dear Mr. Kelly,

Please accept this letter and attached Sundry Notice as the necessary surface owner notification for earth pit closure activities at the Carson Unit 15 COM 323 well site, owned and operated by Elm Ridge Exploration. The Carson Unit 15 COM 323 well site is located in Unit K, Section 15, Township 25N, Range 12W, San Juan County, New Mexico. Closure activities are scheduled to begin on August 31, 2009 and continue through September 4, 2009.

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,

James McDaniel
Project Scientist

imcdaniel@envirotech-inc.com

ENVIROTECH, INC

Enclosure:

Sundry Notice

Cc:

Client File No. 03056

Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR RUBEAU OF LAND MANAGEMENT

FORM APPROVED	
OMB No. 1004-0137	1
Expires: July 31, 2010	٥

BUR	EAU OF LAND MANA	GEMENT		5. Lease Serial No. NM-070322	
Do not use this f	OTICES AND REPOR form for proposals to Use Form 3160-3 (AP	drill or to re-enter a		6. If Indian, Allottee or	Tribe Name
SUBMIT	IN TRIPLICATE Other in	structions on page 2.		7. If Unit of CA/Agree	ment, Name and/or No.
1. Type of Well			•••	8. Well Name and No.	
Oil Well 📝 Gas W	/ell Other			Carson Unit 15 COM	1 323
Name of Operator Elm Ridge Exploration				9. API Well No. 30-045-27662	
3a. Address PO Box 156 Bioomfeld, NM 87413		 Phone No. (include area of 505) 632-3476 	ode)	10. Field and Pool or E	Exploratory Area
4. Location of Well (Footage, Sec., T., 1610 FSL 1560 FWL, K-15-25N-12W, Lat. 36.3				11. Country or Parish, San Juan County, N	
12. CHEC	K THE APPROPRIATE BOX	(ES) TO INDICATE NATUR	E OF NOT	ICE, REPORT OR OTHI	ER DATA
TYPE OF SUBMISSION		T	YPE OF AC	TION	
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Elm Ridge Exploration plans to beging Closure activities are scheduled to be activities.					
14. I hereby certify that the foregoing is t Ms. Arny Mackey	rue and correct. Name (Printed)	Typed)			
	/	Title Admini	strative Ma	nager	
Signature		Date 08/24/	2009		
	THIS SPACE F	OR FEDERAL OR S	TATE OF	FICE USE	
Approved by					
Conditions of approval, if any, are attache	d. Approval of this notice does r	Title not warrant or certify			Date
that the applicant holds legal or equitable entitle the applicant to conduct operations	title to those rights in the subject				
Title 18 U.S.C. Section 1001 and Title 43 fictitious or fraudulent statements or repr			and willfully	to make to any departmen	nt or agency of the United States any false

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and grantingapproval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

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August 4, 2009

Project No. 03056-0241

Mr. Brad Jones New Mexico Oil Conservation Division 1220 South St. Francis Street Santa Fe, New Mexico 87505

Phone (505) 476-3487

RE: EARTH PIT CLOSURE NOTIFICATIONS AND PROPOSED CLOSURE SCHEDULE

Dear Mr. Jones,

Envirotech, Inc., on the behalf of Elm Ridge Exploration, would like to submit this notification to begin closure activities at the below mentioned locations. Attached to this document is a proposed closure schedule for the months of August and September of 2009. Should this schedule be approved by your office, closure activities will begin as scheduled, with surface owner notifications being made at a minimum of 24 hours prior to the beginning of closure activities and a maximum of one (1) week prior to closure activities. Additional closure notifications and schedules will be made prior to beginning any closure activities. This letter will act as the closure notification for the following sites:

Bisti Coal 20-2	Bisti Coal 6-1	Bisti Coal 6-2	Bisti Coal 7-1
Bisti Coal 7 COM 2	Bisti Coal 8 COM 1	Bisti Coal 8L COM 2	Bisti Coal 9-1
Bisti Coal 9 COM 2	Bisti Coal 21-1	Bisti Coal 21 COM 2	Bisti Coal 22-2
Bisti Coal 28-1	Bisti Coal 29-1	Bisti Coal 29-2	Bisti Coal 30 COM 1
Bisti Coal 31-1	Bisti Coal 4-1	Bisti Coal 4 COM 2	Bisti Coal 5 COM 1
Bisti Coal 5K COM 2	Carson 10-332	Buena Suerte 3 G COM 1	Buena Suerte 3 L COM 1
Buena Suerte 32 G COM 1	East Bisti Coal 6-1	Buena Suerte 4 L COM 1	Carson Unit 15 COM 323
Carson Unit 206	Carson Unit 313	Pete Morrow 1	Pete Morrow 2
North Bisti Coal 32M COM 2	North Bisti Coal 31-1	Sam Jackson State COM 1	Jeter COM 2
West Bisti Coal 11 F COM 1	West Bisti Coal 12-1	West Bisti Coal 13-1	West Bisti Coal 11-2
West Bisti Coal 10-2	West Bisti Coal 15-1	West Bisti Coal 14 COM 1	West Bisti Coal 15-2
West Bisti Coal 22-2	West Bisti Coal 23-1	West Bisti Coal 22 COM 1	West Bisti Coal 24-1
West Bisti Coal 24 COM 2	West Bisti Coal 25-1	West Bisti Coal 25 2Y	Jicarilla Apache I-11
Sheila Hixon 1	Bisti Coal 16-2		

Elm Ridge Exploration is proposing to close the earthen pits at the above listed well locations based on the attached closure schedule.

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.

James McDaniel Project Scientist

Attachments:

jucdaniel@envirotech-inc.com

Closure Schedule

ELM RIDGE EXPLORATION

Administrative Manager mackey | @cimridge.net

Amy Mackey

5796 US Highway 64, Farmington, NM 87401 Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 info@envirotech-inc.com envirotech-inc.com

August 2009

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92	Bisti Coal 29-1 Bisti Coal 29-2 Bisti Coal 30-2 Bisti Coal 31-1 Bisti Coal 4-1 Bisti Coal 4 COM 2 Bisti Coal 5 COM 1 Bisti Coal 16-2	Bleti Coel 29-1 Bisti Coel 29-2 Bisti Coel 30-0 Bisti Coel 31-1 Bisti Coel 4-1 Bisti Coel 4-COM 2 Bisti Coel 5 COM 1 Bisti Coel 16-2 Bisti Coel 16-2	19 Bisti Coal 29-1 Bisti Coal 29-2 Bisti Coal 30-CM 1 Bisti Coal 31-1 Bisti Coal 4-1 Bisti Coal 4 COM 2 Bisti Coal 5 COM 1 Bisti Coal 16-2	Bisti Coel 29-1 Bisti Coel 29-2 Bisti Coel 29-2 Bisti Coel 31-1 Bisti Coel 4-1 Bisti Coel 4 COM 2 Bisti Coel 5 COM 1 Bisti Coel 6 COM 2	21 Bisti Coel 29-1 Bisti Coel 29-2 Bisti Coel 30 COM 1 Bisti Coel 4-1 Bisti Coel 4 COM 2 Bisti Coel 5 COM 1 Bisti Coel 5 COM 2 Bisti Coel 16-2	22
23	24 Bisti Coal 6-1 Bisti Coal 6-2 Bisti Coal 7-1 Bisti Coal 7 COM 2 Bisti Coal 8 COM 1 Bisti Coal 9-1 Bisti Coal 9 COM 2	25 Bisti Coal 6-1 Bisti Coal 6-2 Bisti Coal 7-1 Bisti Coal 7-COM 2 Bisti Coal 8 COM 1 Bisti Coal 9-1 Bisti Coal 9-COM 2	26 Bieti Coal 6-1 Bisti Coal 6-2 Bisti Coal 7-1 Bisti Coal 7 COM 2 Bisti Coal 8 COM 1 Bisti Coal 9-1 Bisti Coal 9-1 Bisti Coal 9 COM 2	Bisti Coal 6-1 Bisti Coal 6-2 Bisti Coal 7-1 Bisti Coal 7-0 Bisti Coal 7 COM 2 Bisti Coal 8 COM 1 Bisti Coal 9-1 Bisti Coal 9 COM 2	28 Bisti Coal 6-1 Bisti Coal 6-2 Bisti Coal 7-1 Bisti Coal 7 COM 2 Bisti Coal 8 COM 1 Bisti Coal 9-1 Bisti Coal 9-0	29
30	31 Carson 10-332 Buena Suerte 3 G COM 1 Buena Suerte 3 L COM 1 Buena Suerte 32 G COM 1 Buena Suerte 4 L COM 1 East Bleti Coal 6-1 Carson Unit 15 COM 323 Carson Unit 206					

Sun	Monday	September 2009 Tuesday	r 2009 Wed	Thurs	Friday	Sat
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13	14 West Bisti Coal 12-1 West Bisti Coal 13-1 West Bisti Coal 11-2 West Bisti Coal 10-2 West Bisti Coal 10-2 West Bisti Coal 15-1 West Bisti Coal 15-1 West Bisti Coal 15-2	Vest Bisti Coal 12-1 West Bisti Coal 13-1 West Bisti Coal 11-2 West Bisti Coal 11-2 West Bisti Coal 10-2 West Bisti Coal 14 COM 1 West Bisti Coal 15-1 West Bisti Coal 15-2	West Bisti Coal 12-1 West Bisti Coal 13-1 West Bisti Coal 11-2 West Bisti Coal 10-2 West Bisti Coal 10-2 West Bisti Coal 16-1 West Bisti Coal 15-1 West Bisti Coal 15-2	West Bistl Coal 12-1 West Bistl Coal 13-1 West Bistl Coal 11-2 West Bistl Coal 10-2 West Bistl Coal 16-2 West Bistl Coal 15-1 West Bistl Coal 15-1 West Bistl Coal 15-2	West Bisti Coal 12-1 West Bisti Coal 12-1 West Bisti Coal 13-1 West Bisti Coal 10-2 West Bisti Coal 10-2 West Bisti Coal 15-1 West Bisti Coal 15-1 West Bisti Coal 15-2 West Bisti Coal 15-2	9
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27	28	29	30			



EPA METHOD 418.1 TOTAL PETROLEUM **HYDROCARBONS**

Client:

Elm Ridge Exploration

Project #:

03056-0197

Sample No.:

1

Date Reported:

10/12/2009

Sample ID:

Earth Pit Comp @1' Below

Date Sampled:

9/4/2009

Sample Matrix:

Soil

Date Analyzed:

9/4/2009

Preservative:

Cool

Analysis Needed:

TPH-418.1

Condition:

Cool and Intact

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

Total Petroleum Hydrocarbons

16

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:

East Bisti Coal 6-1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Joshua Kirchner

Printed

James McDaniel

Printed



CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Cal. Date:

4-Sep-09

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
TPH	100		
	200	201	
	500		
	1000		

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

nalyst

Date

Joshua Kirchner

Print Name

Review

Date

James McDaniel

Print Name



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	ElmRidge	Project #:	03056-0197
Sample ID:	Pit Composite	Date Reported:	09-10-09
Laboratory Number:	51546	Date Sampled:	09-04-09
Chain of Custody:	78 96	Date Received:	09-04-09
Sample Matrix:	Soil	Date Analyzed:	09-09-09
Preservative:	Cool	Date Extracted:	09-08-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
Benzene	ND	0.9	
Toluene	6.3	1.0	
Ethylbenzene	4.9	1.0	
p,m-Xylene	10.7	1.2	
o-Xylene	6.3	0.9	
Total BTEX	28.2		

ND - Parameter not detected at the stated detection limit.

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

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:

East Bisti Coal 6-1

Analyst

Mustine m Woodles
Review



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client: Sample ID: Laboratory Number:	N/A 09-09-BT QA/QC 51550	Project #: Date Reported: Date Sampled:	N/A 09-10-09 N/A
Sample Matrix: Preservative: Condition:	Soil N/A N/A	Date Received: Date Analyzed: Analysis:	N/A 09-09-09 BTEX
Condition.	14/7	Allalysis.	DILX

				DAKK	Detact.
Benzene	2.0452E+006	2.0493E+006	0.2%	ND	0.1
Toluene	1.9290E+006	1.9329E+006	0.2%	ND	0.1
Ethylbenzene	1.7270E+006	1.7305E+006	0.2%	ND	0.1
o,m-Xylene	4.4426E+006	4.4515E+006	0.2%	ND	0.1
o-Xylene	1.6575E+006	1.6608E+006	0.2%	ND	0.1

					Desert Link
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

				Salahan salah I	Accept Range
Benzene	ND	50.0	49.5	99.0%	39 - 150
Toluene	ND	50.0	49.1	98.2%	46 - 148
Ethylbenzene	ND	50.0	48.5	97.0%	32 - 160
p,m-Xylene	ND	100	102	102%	46 - 148
o-Xylene	ND	50.0	46.3	92.6%	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 51546, 51548, 51550, 51551, and 51555 - 51556.

st Re

5796 LIS Highway 64 Earmington NM 87401 Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com



Chloride

Elm Ridge 03056-0197 Client: Project #: Sample ID: Pit Composite Date Reported: 09-11-09 Lab ID#: 51546 Date Sampled: 09-04-09 Sample Matrix: Soil Date Received: 09-04-09 Preservative: Cool 09-09-09 Date Analyzed: Condition: Intact Chain of Custody: 7896

Parameter Concentration (mg/Kg)

Total Chloride 300

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: East Bisti Coal 6-1.

nalyst Review Walters



Chloride

03056-0197 Client: Elm Ridge Project #: 09-11-09 Date Reported: Sample ID: Background 09-04-09 Lab ID#: 51547 Date Sampled: 09-04-09 Date Received: Sample Matrix: Soil Date Analyzed: 09-09-09 Preservative: Cool Condition: Intact Chain of Custody: 7896

Parameter Concentration (mg/Kg)

Total Chloride 145

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: East Bisti Coal 6-1.

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CHAIN OF CUSTODY RECORD

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		(3100	P • • • • • • • • • • • • • • • • • • •			400	7											Received by: (Signature)		Received by: (Signature)	Received by: (Signature)	envirotech Analytical Laboratory	11 • 505-632
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i.	30 6-1			7		Sludge	Sludge	Sludge	Sludge	Sludge			Sludge		Aqueous	Sludge Aqueous	Sludge Aqueous	Date	6-2-6				5796 HS Highway 64 • Earmington NM 87401 • 505-632-0615 • Jah@envirotech-ing.com
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Project Name / Location:	Str Risti Ga	Sampler Name:	Client No.:	03056-019-	Lab No.	51546	51547												1				5796 U
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	ì				Sample	444	3-4-6											ature)//		ature)	ature)		
Client:	のとれがろ	Client Address:	Client Phone No.:		Sample No./	7)	CACK SECULA											Relinguished by: (Signature)	1	Relinquished by: (Signature)	Relinquished by: (Signature)		

PAGE NO: $ / OF $ DATE STARTED: $ \mathcal{E} / 3 $ (DATE FINISHED: $ 9 / 3 $ (/c9 09	(505) 632-0616 (300) 362-1879 5796 U.S. Hwy 64, Farmington, NIM 67401 ENVIRONMENTAL SPECIA R S LAT: LONG:							
-	FIELD R	EPORT: I	3GT / P	IT CLOS	SURE VE	RIFICAT	YON		
LOCATION: NAME: F			WELL#: /		TEMP PIT:	PERMAN		BGT:	
LEGAL ADD: UNIT:		SEC: 6		TWP: 25		RNG: ///		PM: NMPM	
QTR/FOOTAGE <u>: 830 1</u>	NC 1	310'FE(CNTY: S	> \		ST:			
EXCAVATION APPROX:	12 M	FT. X		FT. X		FT. DEEP		RDAGE:	
DISPOSAL FACILITY:	Envirch		HA ADI	REMEDIA	ΓΙΟΝ METΗC				
LAND OWNER: CONSTRUCTION MATERIA	tidera L: Eart		API: DOUBLE-V	WALLED. V	VITH LEAK D	BGT / PIT V ETECTION		,	
LOCATION APPROXIMATE			FT.		FROM WELL		707		
DEPTH TO GROUNDWATE									
TEMPORARY PIT - GR									
BENZENE $\leq 0.2 \text{ mg/kg, B}'$	TEX ≤ 50 mg/k	cg, GRO & DRO) FRACTIO	N (8015) ≤ 50	0 mg/kg, TPH (4	418.1) ≤ 2500	mg/kg, CHL	ORIDES ≤ 500 mg/kg	
TEMPORARY PIT - GR	_	_	_	T (0015) = 500) // TDII (4	19 1) < 2500		DDDES < 1000 ~//	
BENZENE ≤ 0.2 mg/kg, BT	_	g, GRU & DRU	FRACTION	N (8013) ≤ 300) mg/kg, 1 P H (4	.18.1) ≤ 23001	ng/kg, CHLC	DKIDES Z 1000 mg/kg	
PERMANENT PIT OR I		-~ TDH (410 1)	~ 100 ··· ~//-	CIT OBIDE	C < 250 ma/lea				
BENZENE ≤ 0.2 mg/kg, B'	1EX ≥ 30 mg/F	(g, 1Ff1 (416.1 <i>)</i>	≤ 100 mg/kg			vete			
	TIME	SAMPLE I.D.	LAB NO.		D 418.1 ANAL' mL FREON	DILUTION	READING	CALC. (mg/kg)	
	<i>0</i> :25	200 STD		-	-	-	210		
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	10:02	Nall Comp 2	5	5.0	90	- 4	0	U	
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Mn 7 LSE		7	SAMPLE ID 2 3 4	READING AU PID RESUI	CALC. (mg/kg) 2 40 9 8 00 < 2 7 45 A/D		E a	12:	
(E)				PLE ID \$10	RESULTS (ppm) 90.9 0.0 0.0 0.0 0.0	5		×13'	
LAB SAMPLES SAMPLE ID ANALYSIS BENZENE BTEX GRO & DRO CHLORIDES	RESULTS	NOTES:	R #		WHO ORDER	ED			

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QTR/FOOTAGE:				CNTY:	SAn	The second secon	ST:			
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LAND OWNER:				API:			BGT / PIT V			
CONSTRUCTION MAT			174			VITH LEAK I		: V	7-	
LOCATION APPROXIM DEPTH TO GROUNDW				FT.		FROM WELL	HEAD			
TEMPORARY PIT BENZENE ≤ 0.2 mg/	- GR kg, B7	OUNDWAT ΓEX ≤ 50 mg/l	kg, GRO & DR	O FRACTIO	N (8015) ≤ 50	00 mg/kg, TPH (418.1) ≤ 2500	mg/kg, CHL	ORIDES ≤ 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 PERMANENT PIT OR BGT										
BENZENE ≤ 0.2 mg/	kg, B7	ΓEX ≤ 50 mg/l	kg, TPH (418.1)) ≤ 100 mg/kg						
		TIME	SAMPLE I.D.	LABNO	FIEL WEIGHT (g	D 418.1 ANAL mL FREON	YSIS DILUTION	PEADING	CALC. (mg/kg)	
		IIVIE	200 STD	LAB NO.	WEIGHT (g	-	-	201	Cribe. (mg/kg)	
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				3						
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PEI	RIME	ETER		FIELD C	CHLORIDE	S RESULTS		PRO	OFILE	
EATH Pr	SAMPLE ID 540	READING 5 99.9	CALC. (mg/kg)	n - 1						
Rup Shek				SAM	PID RESU	RESULTS (ppm)	154			
LAB SAM SAMPLE ID ANAL BENZ BTI GRO & CHLOI	YSIS ENE EX DRO	RESULTS	NOTES:	ER #		WHO ORDEI	RED			

envirotech

Bill of Lading

34180

MANIFEST #_

JOB# 0.3056-0197 DATE 4-3-0 9 PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DRIVER SIGNATURE TRANSPORTING COMPANY 19:51 150 ENTERED SEP 0 9 2009 12:43 TRK# TIME PC:01 78 9:15 78 NOTES: LXC WOT 75 COMPANY 4-4 7-4 7-7 ケーカ BBLS 1 7 YDS В О 7 F-22 20 F. 22 F-23 F.21 GRID COMPLETE DESCRIPTION OF SHIPMENT S 3 MATERIAL んのとよ 1 DESTINATION LANDFARM EMPLOYEE: 2 ヹ < POINT OF ORIGIN CHLORIDE TEST PAINT FILTER ELM RINGE ځ RESULTS LOAD

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and that no additional materials have been added." COMPANY Elm. Picke

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NAME ISHAN

PHONE 327-27/1

SIGNATURE 300 DATE ACCENT Printing • Form 28-1212

envirotech

Bill of Lading

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JOB# 03056-019 MANIFEST #

DATE 7-3-05

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and DRIVER SIGNATURE *IRANSPORTING COMPANY* ENTERED SEP 0 9 2009 9.25 12:50 9:31 TRK# TIME 200 18 78/ 75 COMPANY 4-6 4-61 ローロ NOTES: BBLS YDS $\tilde{\mathcal{U}}$ 7 8 8 GRID COMPLETE DESCRIPTION OF SHIPMENT Claim Fill MATERIAL 3 Erm Krose Est 13. stical DESTINATION LANDFARM EMPLOYEE: ζ CH1 Ħ 3 POINT OF ORIGIN ENJING tech CHLORIDE TEST PAINT FILTER RESULTS: LOAD NO.

COMPANY Elmhides that no additional materials have been added." MKmey NAME / CALA

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Bill of Lading

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

MANIFEST #

DATE 9-04-09 JOB# (13656.

34187

"I certify the material hauled from the above location has not been added to or mixed with, and is the same material received from the above mentioned Generator, and DRIVER SIGNATURE **FRANSPORTING COMPANY** ENTERED SEP 0 9 2009 8 TRK# TIME 178/945 178 - h-h COMPANY 4-4 NOTES BBLS 7 4 YDS GRID COMPLETE DESCRIPTION OF SHIPMENT MATERIAL E25+8,5+10 DESTINATION LANDFARM EMPLOYEE: POINT OF ORIGIN ENVIROPOCK I # #2 CHLORIDE TEST PAINT FILTER TEST RESULTS LOAD

COMPANY SIMPLETSE that no additional materials have been added."

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NAME JOHN MCKINGY

PHONE 327-27/

DATE 9:04.09 SIGNATURE_

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Elm Ridge Exploration East Bisti Coal 6-1 Sec 6, Twn 25N, Rge 11W Project No. 03056-0197



Photo 1: East Bisti Coal 6-1 Well Site



Photo 2: Excavated Area After Backfilling, Recontouring, and Re-seeding



March 8, 2010

Project No. 03056-0197

Mr. Brad Jones New Mexico Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

Phone (505) 476-3487

RE: C-141 Release Notification Form for the East Bisti Coal 6-1 Well Site

Dear Mr. Jones,

Enclosed please find the modified C-141 Release Notification Form and additional supporting closure documentation for the East Bisti Coal 6-1 well site owned and operated by Elm Ridge Exploration. All closure activities from this point forward will comply with Rule 29 with the district office of the OCD.

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.

James McDaniel Project Scientist

jmcdaniel@envirotech-inc.com

Enclosure: Modified C-141 Release Notification Form

Modified Closure Checklist

Cc: Client File No. 03056

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

Submit 2 Copies to appropriate District Office in accordance

Form C-141

Final Report

Revised October 10, 2003

with Rule 116 on back side of form

Release Notification and Corrective Action **OPERATOR** Initial Report Contact: Amy Mackey

Name of Company: Elm Ridge Exploration Address: PO Box 156, Bloomfield, NM 87413 Telephone No.: (505) 632-3476 Ext 201 Facility Name: East Bisti Coal 6-1 Facility Type: Gas Well Surface Owner: Federal Mineral Owner: Lease No.: SF-078062-A LOCATION OF RELEASE Unit Letter Section Township Feet from the North/South Line Feet from the East/West Line Range County Α 6 25N 11W 830 **FNL** 1300 FEL San Juan Latitude: 36.435066 Longitude: -108.040664 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: Date and Hour of Discovery: NA Historical Was Immediate Notice Given? If YES, To Whom? ☐ Yes ☐ No ☒ Not Required By Whom? Date and Hour Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. ☐ Yes ⊠ No 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. Describe Area Affected and Cleanup Action Taken.* Blow sand was removed from the earthen pit, and approximately sixty-four (64) cubic yards of 'production sludge' was removed from the earthen pit. Sludge was taken to Envirotech's NMOCD permitted soil remediation facility, Landfarm #2. A 5-point composite sample was collected from approximately one (1) foot below the earthen pit once it was removed. The sample was analyzed in the field for total petroleum hydrocarbons (TPH) via USEPA Method 418.1, and in Envirotech's laboratory for benzene and BTEX via USEPA Method 8021 and for total chlorides via USEPA Method 4500B. The sample returned results below the 'Pit Rule' standards of 100 mg/kg TPH, 0.2 mg/kg benzene and 50 mg/kg BTEX, but above the 250 mg/kg total chloride standard, confirming that a release had occurred. Elm Ridge Exploration will comply with Rule 29 from this point forward with the local division of the OCD. 1 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. OIL CONSERVATION DIVISION Signature: Approved by District Supervisor: Printed Name: Ms. Amy Mackey Title: Administrative Manager Approval Date: **Expiration Date:** E-mail Address: amackey1@elmridge.net Conditions of Approval: Attached

* Attach Additional Sheets If Necessary

Phone: 505-632-3476 Ext 201

Date: 6-15-10

Elm Ridge Exploration East Bisti Coal 6-1 Earth Pit Closure Project No. 03056-0197 Closure Date: 9/4/09

Earthen Pit Closure Checklist

- Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close all former earthen pits prior to the closure date agreed upon by the New Mexico Oil Conservation Division (NMOCD) of December 31, 2009.
 Closure date for the earth pit located at East Bisti Coal 6-1 well site is September 4, 2009.
- 2) In accordance with Subsection A of 19.15.17.13 NMAC, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close any earthen pits at a date the division requires because of imminent danger to fresh water, public health or the environment.
 - None of the earthen pits to be closed by Elm Ridge Exploration are deemed an imminent risk to the environment, public health, or to fresh or public water.
- 3) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will close earthen pits first which seem to pose a greater risk to fresh water, public health, or the environment. This will be determined by the locations proximity to surface water sources and distance to groundwater.
 - None of the earthen pits to be closed by Elm Ridge Exploration are deemed an imminent risk to the environment, public health, or to fresh or public water.
- 4) No less than 60 days prior to any earthen pit closure activities, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the Santa Fe NMOCD office as well as a schedule of on-site activities, as in accordance with 19.15.17.13 Subsection J Paragraph (3) NMAC. Notification was provided to Mr. Brad Jones of the NMOCD Santa Fe Office on August 4, 2009, along with a schedule of on-site activities; see attached Notification Letter.
- 5) No less than 24 hours and no greater than one (1) week prior to earthen pit removal, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will provide written notification to the appropriate surface owner as well as a schedule of on-site activities, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the surface owner by certified mail, return receipt requested, that the operator plans to close an earthen pit. The return receipt will be used to ensure that the surface owner has received written notification no less than 24 hours and no greater than one (1) week prior to the beginning of earth pit closure activities. Evidence of mailing of the notice to the address of the surface owner shown in the county tax records is sufficient to demonstrate compliance with this Closure activities that will take place on tribal land will have notifications sent by certified mail, return receipt requested, to the appropriate tribal Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will notify the Bureau of Land Management (BLM) of closure activities for wells located on federal land per a Sundry Notice, as in accordance with 19.15.17.13 Subsection J Paragraph (1) NMAC. All notices will be sent in such a way that the surface owner will receive notice at least 24 hours prior to the beginning of closure activities.

Notification was provided to the Bureau of Land Management on August 26, 2009; see attached Sundry Notice and Return Receipt.

- 6) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all liquids and/or sludge, to visual extents, prior to closure sampling. Material will be disposed of at Envirotech's Landfarm #2, Permit # NM-01-0011, TNT Environmental Inc. Landfarm, Permit # NM-01-0008, Industrial Ecosystems Inc. (IEI) Landfarm, Permit # NM-01-0010B, or Basin Disposal, Permit # NM-01-0005, depending on the consistence of the material removed, as in accordance with 19.15.17.13 Subsection C Paragraph (1) NMAC.
 - On August 31, 2009 through September 4, 2009, approximately 64 cubic yards of production sludge was removed from the earthen pit and disposed of at Envirotech's NMOCD permitted soil remediation facility, Landfarm #2, Permit #NM-01-0011; see attached *Bill of Lading*.
- 7) Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will remove all on-site equipment associated with this earthen pit unless it is required for some other purpose, as in accordance with 19.15.17.13 Subsection C Paragraph (2) NMAC. The equipment that meets the requirements of 19.15.9.712 Subsection A NMAC and 19.15.9.712 Subsection D Paragraph (1) will be disposed of at San Juan County Regional Landfill. Waste that is classified by 19.15.9.712 Subsection D Paragraph (2) will be sampled accordingly to determine acceptance of this material at the San Juan County Regional Landfill. Waste that is unable to be accepted at the San Juan County Regional Landfill will be submitted to the OCD on a case-by-case basis in accordance with Paragraph (3) of Subsection D of 19.15.9.712.

All on-site equipment will be used for the continued operation of the East Bisti Coal 6-1 well site; see attached *Field Sheet* and *Site Photographs*.

8) Once the earthen pit is removed to visual extents of contamination, a five (5)-point composite sample will be collected from directly below the liner(s) or at native soil. Additional discrete samples will be collected from any area that is wet, discolored, or show other evidence of a release. All samples being collected will be analyzed for benzene and total BTEX via USEPA Method 8021B, TPH via USEPA Method 418.1, and chlorides via USEPA 300.1, as in accordance with 19.15.17.13 Subsection C Paragraph (3) NMAC.

On September 4, 2009, a five (5)-point composite sample was collected of native soil beneath the earthen pit and analyzed in the field for total petroleum hydrocarbons (TPH) via USEPA Method 418.1, and analyzed in the laboratory for benzene and BTEX via USEPA Method 8021B and for total chlorides via USEPA Method 4500B. The sample returned results below the 100 mg/kg TPH standard, the 0.2 mg/kg benzene standard and the 50 mg/kg BTEX standard, but above the 250 mg/kg total chloride standard, confirming that a release did occur. Elm Ridge Exploration will comply with Rule 29 from this point forward with the local division of the OCD.

NAME	Benzene	BTEX	Chlorides	ТРН
Pit Rule	0.2 mg/kg	50 mg/kg	250 mg/kg	100 mg/kg
Standard				
Earth Pit Comp 1'	< 0.0009 mg/kg	0.0282 mg/kg	300 mg/kg	16 mg/kg
Below Pit				
Background	NS	NS	145 mg/kg	NS

- 9) Depending on soil sample results the area will be either backfilled or the area will be excavated.
 - 1) If soil samples do not exceed the regulatory standards of 0.2 mg/kg benzene, 50 mg/kg BTEX, 100 mg/kg TPH, and 250 mg/kg or background

Elm Ridge Exploration East Bisti Coal 6-1 Earth Pit Closure Project No. 03056-0197 Closure Date: 9/4/09

concentration of chlorides, as in accordance with 19.15.17.13 Subsection C Paragraph (3) NMAC.

i. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, shall submit a Form C-141 with the laboratory results so that the division may review the results to determine if additional delineation is required in accordance with Paragraph (4) of Subsection C of 19.15.17.13 NMAC.

Completed Form C-141 is attached for your review.

ii. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will backfill the excavation or impacted area with non-waste containing, earthen material, in accordance with 19.15.17.13 Subsection E Paragraph (6) NMAC. A soil cover shall be installed for all backfilled excavations consisting of the background thickness of topsoil or one (1) foot of suitable material to establish vegetation at the site, whichever is greater in accordance with Subsections H of 19.15.17.13 NMAC. The operator shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

Elm Ridge Exploration has backfilled the excavated area with non-waste containing earthen material, and installed a soil cover of at least one (1) foot thick of suitable material to establish vegetation at this site. The soil cover has been graded in such a way that it conforms to the grade of the natural surroundings, and will prevent ponding of water and erosion of the cover material; see Site Photographs.

iii. All areas of the well site that are no longer utilized on a day to day basis for the production of oil and/or gas, Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, will substantially restore, recontour and re-vegetate the areas, in accordance with 19.15.17.13 Subsections G and I NMAC. The operator shall notify the division when it has been re-seeded and when it has achieved successful re-vegetation.

Elm Ridge Exploration has restored, recontoured and re-seeded the excavated area in accordance with BLM standards as outlined in the Memorandum of Understanding (MOU).

2) If soil samples exceed the regulatory standards stated above:

i. Elm Ridge Exploration, or a contractor acting on behalf of Elm Ridge Exploration, shall submit a Form C-141 with the laboratory results so that the division may review the results to determine if additional delineation is required in accordance with Paragraph (4) of Subsection C of 19.15.17.13 NMAC.

The five (5)-point composite sample of native soil beneath the earthen pit returned results below the 100 mg/kg TPH standard, the 0.2 mg/kg benzene standard and the 50 mg/kg BTEX standard, but above the 250 mg/kg total chloride standard, confirming that a release did occur. Elm Ridge Exploration will comply with Rule 29 from this point forward with the local division of the OCD.

Elm Ridge Exploration East Bisti Coal 6-1 Earth Pit Closure Project No. 03056-0197 Closure Date: 9/4/09

10) Elm Ridge Exploration will submit a closure report within 60 days following the earthen pit closure. The closure report will consist of a form C-144 with all supporting data and a form C-141 with all supporting data. The supporting data will include proof of closure notice to the surface owner and the OCD, confirmation sampling analytical results, a site diagram, soil backfilling and cover installation, revegetation rates, re-seeding techniques, and site reclamation photo documentation if applicable, along with all other information related to the onsite activities.

Elm Ridge Exploration will submit the above referenced closure documents to the local division of the OCD.

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Roat, Actec, M 8740 EDistrict IV

State of New Mexico **Energy Minerals and Natural Resources**

Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr. Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back

Form C-141

1220 S. St. Fran	icis Dr., Sant 10 MAY 1	a Fe, NM 8/505	20	Sa	ınta I	Fe, NM 875	505					side of form
	// 	. 		ease Notific	atio	n and Co	orrective A	ction				
						OPERA'				al Report		Final Repor
		lm Ridge Ex				Contact: Amy Mackey						
		, Bloomfield	, NM 874	113		Telephone No.: (505) 632-3476 Ext 201						
Facility Na	me: East B	isti Coal 6-1				Facility Typ	e: Gas Well					
Surface Ow	ner: Feder	al		Mineral C)wner	:			Lease N	No.: SF 078	3062 -	A
				LOCA	ATIC	N OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the		h/South Line	Feet from the	East/V	Vest Line	County		
A	6	25N	11W	830		FNL	1300	l I	FEL	San Juan		
				Latituda 26.4	25066	Longity	rdo 109.04064	6.4				
				Latitude 36.4			ıde <u>-108.04066</u>	<u>04</u>				
- AD 1				NAT	URI	E OF REL						
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Source of Re	rease. Laru	1110				Historical	iour or occurrent	cc.	Date and	Tiour or Dis	covery	, IVA
Was Immedi	ate Notice (Yes [No Not R	equire	if YES, To	Whom?					
By Whom?					-	Date and I	Hour					
Was a Watercourse Reached? ☐ Yes ☒ No				If YES, Volume Impacting the Watercourse.								
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	•								
Produced Wa	ater from ga		nentioned	n Taken.* location formerly ound Storage Tar			arthen pit on loca	tion. Th	e well has	been altered	to no	longer drain
Earthen pit v results are at 418.1 and in USEPA Met standard via pursuant to the feet below go closure stand closure stand	vas in use of tached to th Envirotech hod 4500B. USEPA Me he NMOCE round surface lard for total lards determ	is document for sample in the	has not be or reference for benzence returned red d the 250 or the Rem in 100 feet the NMC site. TPH	ten discharged into the ten discharged into the ten and total BTEX esults that were be ppm total chlorid aediation of Leaks. This set the clooc DGU Guidelines for was below the 10	as ana via US elow the stands, Spill sure store the IOO ppr	lyzed in the fie SEPA Method as 0.2 ppm bendard, confirmings and Releases andards to 100 Remediation of an closure stand	eld for Total Petro 8021, TPH via U- zene and the 50 p g that a release ha . The site was ran 0 ppm TPH, 10 p f Leaks, Spills and lard via USEPA M	oleum Hy SEPA M opm BTE ad occur nked a 10 opm benz d Release Method 8	drocarbon lethod 801: X standard red at this s 0 due to greene and 50 es. All ana 8015.	s (TPH) via 5, and for to ds, but above site. The site oundwater b ppm total E dytical resul	USEP tal chlo the IO e was t eing g BTEX. ts were	A Method orides via 00 ppm TPH then ranked greater than 50 There is no e below the
regulations a public health should their or or the enviro	II operators or the envi operations h nment. In a	are required t ronment. The nave failed to	o report and acceptant adequately OCD accept	e is true and comp nd/or file certain r ce of a C-141 repo investigate and r otance of a C-141	elease ort by t emedia	notifications a the NMOCD mate contaminat	nd perform correct parked as "Final Right ion that pose a thing the operator of	ctive acti Report" d reat to gi responsi	ions for rel loes not rel ound wate bility for c	eases which ieve the ope r, surface was compliance v	may e rator o ater, hu with an	endanger of liability uman health
Signature:	A	Sac	lez	,		Approved by	OIL CON District Supervis		ATION	DIVISIO	<u>)N</u>	
Printed Nam	e: Ms Amy	Mackey										
Title: Admin	istrative Ma	anager				Approval Da	te:		Expiration	Date:		
E-mail Addre	ess: amacke	y1@elmridge	.net			Conditions o	f Approval:			Attached		
Date:			Phone: 5	05-632-3476 Ext	201							

^{*} Attach Additional Sheets If Necessary

PAGE NO: OF 1	ENVIR	ONMENTA		<u>CH INC</u> ISTS & ENGIN Y 64 - 3014	NEERS	_	IMENTAL SPECIALIST:
DATE STARTED: $9/29/00$	F	FARMINGTON, NEW MEXICO 87401			1		.435066
DATE FINISHED: 9/29/5		PHO	NE: (505) 63	32-0615		LONG: 1	08,040664
FIELD	REPORT:	BGT / P	IT CLOS	SURE VE	RIFICAT	ΓΙΟΝ	
LOCATION: NAME: East 3	sisti Coal	(WELL #:		TEMP PIT:		ENT PIT:	
LEGAL ADD: UNIT: A QTR/FOOTAGE: 830 FN/C	SEC: 6	CNTY:	TWP: 25	SN	RNG: 1	w	PM: NMPM
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						. 1074	
LOCATION APPROXIMATELY: DEPTH TO GROUNDWATER:	<u> 65</u> 710	FT.	<u>()</u>	FROM WELL	LHEAD		
TEMPORARY PIT - GROUNDW							
BENZENE $\leq 0.2 \text{ mg/kg, BTEX} \leq 50 \text{ r}$			N (8015) ≤ 50	00 mg/kg, TPH ((418.1) ≤ 2500	mg/kg, CHL	ORIDES ≤ 500 mg/kg
TEMPORARY PIT - GROUNDW	ATER >100 FEE	T DEEP					
BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 m			$N(8015) \le 50$	0 mg/kg, TPH (4	418.1) ≤ 2500	mg/kg, CHL	ORIDES ≤ 1000 mg/kg
PERMANENT PIT OR BGT							
BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 s	mg/kg, TPH (418.1)) ≤ 100 mg/kg	z, CHLORIDI	ES ≤ 250 mg/kg			
DETABLING 2 one mg ng, or an 2 or a		,		D 418.1 ANAL			
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		4					
		5					
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[Carth]					1	12	4
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(cs'		<u> </u>	1		-{		77
MR SEP]	Earth	
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\		SAM	PLE ID	RESULTS (mg/kg)	1 1	7111	
AL O		100	Sta	96	1		
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Set Como BTEX GRO & DRO							
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	WORKORD	CD #		WHO ORDE	RED EIN	n Ric	dae

						334334	
		ENV	ROTEC	<u>H INC</u>		Location	No:
Client: Elm Ridge	ENVI		AL SCIENTIS		NEERS		
,	F	FARMINGTON, NEW MEXICO 87401 PHONE: (505) 632-0615					o:
		rhu	NE: (303) 032	-0013			
FIELD REPORT: SPILL C	CLOSURE VI	ERIFICA	ATION			PAGE NO	
LOCUMENT NAME 1 7						DATE ST	ARTED: 9/09/08
LOCATION: NAME: \subseteq_{aS} 7 QUAD/UNIT: SEC: (isti (oal (o	WELL#:	PM: NMPM	CNITY: ST	CST-A IM	DATE FIL	NISHED: NMENTAL
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					ET DEED		
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TRAVEL NOTES: CALLED	OUT:			ONSITE:			



EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

0	iont:	
1 .1	lent.	

Elm Ridge Exploration

Project #:

03056-0197

Sample No.:

1

Date Reported:

2/11/2009

Sample ID:

5 Point Composite

Date Sampled:

9/29/2008

Sample Matrix:

Soil

Date Analyzed:

9/29/2008

Preservative:

Cool

Analysis Needed:

TPH-418.1

Condition:

Cool and Intact

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

Total Petroleum Hydrocarbons

4,940

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:

East Bisti Coal 6-1 Earth Pit

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst	Review	
James McDaniel	Greg Crabtree	
Printed	Printed	



CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

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Cal	D۶	ìtد	σ.

29-Sep-08

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
ТРН	100		
	200	197	
	500		
	1000		

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

116/1	2/11/09
Analyst	Date
James McDaniel Print Name	
Review	Date
Greg Crabtree	



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Elmridge	Project #:	03056-0136
Sample ID:	East Bisti Coal 6 #001	Date Reported:	11-04-08
Laboratory Number:	47932	Date Sampled:	10-29-08
Chain of Custody No:	5654	Date Received:	10-29-08
Sample Matrix:	Soil	Date Extracted:	10-31-08
Preservative:	Cool	Date Analyzed:	11-03-08
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	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:

Earth Pit Samples, 5pt Comp.

Analyst

Review

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com



EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client: Sample ID:	QA/QC 10-03-08 QA/QC	Project #: Date Reported:	N/A 10-06-08
Laboratory Number:	47520	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-03-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept: Range
Gasoline Range C5 - C10	05-07-07	9.8263E+002	9.8302E+002	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.8770E+002	9.8810E+002	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	249	99.6%	75 - 125%
Diesel Range C10 - C28	ND	250	245	98.0%	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 47520 and 47525 - 47528.

Analyst

Mister Muselans Review



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Elmridge	Project #:	03056-0136
Sample ID:	East Bisti Coal 6-001	Date Reported:	11-04-08
Laboratory Number:	47932	Date Sampled:	10-29-08
Chain of Custody:	5654	Date Received:	10-29-08
Sample Matrix:	Soil	Date Analyzed:	11-03-08
Preservative:	Cool	Date Extracted:	10-31-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
Benzene	ND	0.9	
Toluene	3.8	1.0	
Ethylbenzene	3.4	1.0	
p,m-Xylene	4.8	1.2	
o-Xylene	2.0	0.9	
Total BTEX	14.0		

ND - Parameter not detected at the stated detection limit.

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

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



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:		N/A
Sample ID:	11-03-BT QA/QC	Date Reporte	d :	11-04-08
Laboratory Number:	47923	Date Sample	d:	N/A
Sample Matrix:	Soil	Date Receive	d:	N/A
Preservative:	N/A	Date Analyze	d:	11-03-08
Condition:	N/A	Analysis:		BTEX
Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF: %Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	4.3065E+007	4.3151E+007 0.2%	ND	0.1
Toluene	3.3071E+007	3.3137E+007 0.2%	ND	0.1
Ethylbenzene	2.5284E+007	2.5335E+007 0.2%	ND	0.1
p,m-Xylene	2.5284E+007	2.5335E+007 0.2%	ND	0.1
o-Xylene	2.4071E+007	2.4119E+007 0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample D	uplicate	%Diff.	Accept Range	Detect, Limit
_					
Benzene	1.4	1.3	7.1%	0 - 30%	0.9
Toluene	16.9	17.0	0.6%	0 - 30%	1.0
Ethylbenzene	56.3	56.1	0.4%	0 - 30%	1.0
p,m-Xylene	179	181	0.9%	0 - 30%	1.2
o-Xylene	86.6	86.2	0.5%	0 - 30%	0.9

Sample Amo	unt Spiked Spik	ked Sample	% Recovery	Accept Range
1.4	50.0	50.4	98.1%	39 - 150
16.9	50.0	64.6	96.6%	46 - 148
56.3	50.0	104	98.0%	32 - 160
179	100	276	98.7%	46 - 148
86.6	50.0	133	97.7%	46 - 148
	1.4 16.9 56.3 179	1.4 50.0 16.9 50.0 56.3 50.0 179 100	1.4 50.0 50.4 16.9 50.0 64.6 56.3 50.0 104 179 100 276	1.4 50.0 50.4 98.1% 16.9 50.0 64.6 96.6% 56.3 50.0 104 98.0% 179 100 276 98.7%

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 47923 - 47926, 47928, 47930, 47932, 47933, 47942, and 47943.

Analyst

Review



Chloride

Client: Sample ID: Lab ID#: Sample Matrix: Preservative:

Condition:

Elmridge East Bisti Coal 6 #001

47932 Soil Extract

Cool Intact Project #:

Date Reported: Date Sampled:

Date Received: Date Analyzed:

Chain of Custody:

03056-0136

11-04-08 10-24-08

10-29-08 11-04-08

5654

Parameter

Concentration (mg/L)

Total Chloride

1,320

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, 5pt Comp.

Analyst

CHAIN OF CUSTODY RECORD

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				EUVI	IROTECH INC	ECF		از									

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615

CHAIN OF CUSTODY RECORD

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