C-144

2009

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

447.35

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
with Rule 116 on back side of form
side of form

Form C-141 Revised October 10, 2003

			Relo	ease Notific	cation	and Co	rrective A	ction	1	K-C-WED
					(OPERA'	ΓOR			al Report
Name of Company: Elm Ridge Exploration					C	ontact: An	ny Mackey			2009 OCT 15 A
Address: PO Box 156, Bloomfield, NM 87413					No.: (505) 632-3	3476 E	kt 201	7001 OCT 16 V		
Facility Na	me: Bisti C	Coal 5 COM	1		Fa	acility Typ	e: Gas Well			i
Surface Ow	ner: Feder	al		Mineral O)wner:				Lease N	No.: NOO-14-20-8455
				LOCA	ATION	OF RE	LEASE			
Jnit Letter	Section	Township	Range	Feet from the	l .	outh Line	Feet from the	1	West Line	County
В	5	25N	12W	850	F	NL	1630		FEL	San Juan
				Latitude: 36	.435110	Longitue	le: -108.131388			
				NAT	URE C	F REL	EASE			
	ase: Produ						Release: Unknov			Recovered: Unknown
ource of Re	elease: Earth	ı Pit					lour of Occurrence	e:	Date and	Hour of Discovery: NA
Vac Immedi	iate Notice (Given?			-	Historical If YES, To	Whom?		l	
vas minicu	iate Notice (Yes [No Not Re		11 1123, 10	WHOIII:			
By Whom?						Date and Hour				
Vas a Water	course Read	ched?				If YES, Volume Impacting the Watercourse.				
			Yes 🗵] No						
f a Waterco	urse was Im	pacted, Descr	ibe Fully.	*	,					
Describe And Blow sand we point composor total petrostal children	en pit, but is ea Affected vas removed site sample oleum hydr orides via U	and Cleanup I from the eart was collected ocarbons (TPI SEPA Method	Above Grand Action Tales hen pit, ar from apper H) via US	ken.* nd approximately or coximately one (1) EPA Method 418.	one (1) cu) foot belo 1, and in I	bic yard of ow the earth Envirotech' below the	'production sludgen pit once it was s laboratory for be Pit Rule' standare	ge' was remove enzene ds of 10	removed fr ed. The sar and BTEX 0 mg/kg Tl	om the earthen pit. A five (5)- nple was analyzed in the field via USEPA Method 8021 and PH, 0.2 mg/kg benzene, 50 your reference.
egulations ublic healt hould their r the enviro	Il operators or the envi operations I ment. In a	are required to nonment. The nave failed to	to report at acceptanadequately OCD accep	nd/or file certain rece ce of a C-141 report investigate and re	release not ort by the l remediate	ifications a NMOCD m contaminati	nd perform correct arked as "Final R on that pose a thr	ctive act deport" of reat to g	tions for rel does not rel round wate	suant to NMOCD rules and eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other
	$\sqrt{}$	\setminus					OIL CON	SER\	ATION	DIVISION
ignature:						nnroyed by	District Supervis	10**		
rinted Nam	e. Ms. Amy	Mackey	-		A	pproved by	District Supervis	····		
Title: Admir	nistrative M	anager			A	pproval Da	te:		Expiration	Date:
3-mail Addr	ess: amacke	ey1@elmridge	.net		с	onditions o	f Approval:			Attached
Date:			Phone: 5	05-632-3476 Ext	201					

^{*} Attach Additional Sheets If Necessary

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
f action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative

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

	bility to comply with any other applicable governmental authority's rules, regulations, or ordinances.		
•	OGRID#: <u>149052</u>		
Address: P.O. Box 156; Bloomfield, NM 87413			
Facility or well name: <u>Bisti Coal 5 COM 1</u>			
API Number: 3004528197	OCD Permit Number:		
U/L or Qtr/Qtr <u>B</u> Section <u>5</u> Township			
Center of Proposed Design: Latitude 36.435110 Long	gitude <u>-108.131388</u> NAD: □1927 ⊠ 1983		
Surface Owner: X Federal X State Private Tribal Tru	st or Indian Allotment		
2.			
☐ Pit: Subsection F or G of 19.15.17.11 NMAC			
Temporary: Drilling Workover			
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A			
	1 LLDPE HDPE PVC Other		
String-Reinforced			
Liner Seams: Welded Factory Other	Volume:bbl Dimensions: L <u>8'</u> x W <u>8'</u> x D <u>2'</u>		
3. Closed-loop System: Subsection H of 19.15.17.11 NMA	NC		
· · · · · · · · · · · · · · · · · · ·	kover or Drilling (Applies to activities which require prior approval of a permit or notice of		
☐ 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 s	idewalls, liner, 6-inch lift and automatic overflow shut-off		
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐			
Liner type: Thicknessmil	PVC Other		
5.			
Alternative Method:			
submiπal of an exception request is required. Exceptions mu	st 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)			
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			
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 ☐ 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.	☐ 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.	☐ 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 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 Sitting 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 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

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids, 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 I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC					
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 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. 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 database search; USGS; Database Search; USG	a 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; Database search;	a 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; Database search;	a obtained from nearby wells	☐ Yes ☐ No☐ NA			
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other sig lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	nificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No			
Within 300 feet from a permanent residence, school, hospital, institution, or church Visual inspection (certification) of the proposed site; Aerial photo; Satellit		☐ Yes ☐ No			
Within 500 horizontal feet of a private, domestic fresh water well or spring that les watering purposes, or within 1000 horizontal feet of any other fresh water well or some NM Office of the State Engineer - iWATERS database; Visual inspection	spring, in existence at the time of initial application.	Yes No			
Within incorporated municipal boundaries or within a defined municipal fresh wat adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approx	·	Yes No			
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visu	al 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	g and Mineral Division	Yes No			
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geolog Society; Topographic map 	y & 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 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 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 Waste Material Sampling Plan - 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 I of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC					

Operator Application Certification: I hereby certify that the information submitted with this application is true, according to the content of the content	curate and complete to the best of my knowledge and belief.				
Signature:	Date:				
E-mail address: Telephone	·				
20. OCD Approval: Permit Application (including closure plan) Closure	e Plan (only) OCD Conditions (see attachment)				
OCD Representative Signature:	Approval Date:				
Title:	OCD Permit Number:				
21. 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 Date: 8/20/09				
22. Closure Method: Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alte ☐ If different from approved plan, please explain.	ernative Closure Method				
Closure Report Regarding Waste Removal Closure For Closed-loop Syste Instructions: Please indentify the facility or facilities for where the liquids, a two facilities were utilized. Disposal Facility Name: Envirotech Landfarm #2 Disposal Facility Name: Were the closed-loop system operations and associated activities performed or Yes (If yes, please demonstrate compliance to the items below) No Required for impacted areas which will not be used for future service and open Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	Disposal Facility Permit Number: NM-01-0011 Disposal Facility Permit Number: Nm-o1-o011 or in areas that will not be used for future service and operations? Parations:				
Closure Report Attachment Checklist: Instructions: Each of the following 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 Attache □ Waste Material Sampling Analytical Results (required for on-site closur □ Disposal Facility Name and Permit Number Envirotech Landfarm #2 □ Soil Backfilling and Cover Installation See Attached □ Re-vegetation Application Rates and Seeding Technique Pursuant to the Site Reclamation (Photo Documentation) See Attached □ On-site Closure Location: Latitude □ Lor	d e) , NM-01-0011				
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 complies with all applicable closure requirements 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: (505) 632-3476 Ext. 201				

Earthen Pit Closure Checklist

- 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 (NMOCD) of December 31, 2009.

 Closure date for the earth pit located at Bisti Coal 5 COM 1 well site is August 20, 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.

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 onsite 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 the earthen 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 requirement. Closure activities that will take place on tribal land will have notifications sent by certified mail, return receipt requested, to the appropriate tribal office. 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 13, 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 consistency of the material removed, as in accordance with 19.15.17.13 Subsection C Paragraph (1) NMAC.
 - On August 20, 2009, approximately one (1) cubic yard 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 Bisti Coal 5 COM 1 well site; see attached *Field Sheet* and *Site Photos*.
- 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 shows 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.

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	< 0.005 mg/kg	5 mg/kg	< 5 mg/kg
Below Pit				

- 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.

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 attached Site Photos.

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 total chloride standard, confirming that a release did NOT occur.

Elm Ridge Exploration Bisti Coal 5 COM 1 Earth Pit Closure Project No. 03056-0179 Closure Date: 8/20/09

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, re-vegetation 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 October 20, 2009.



Home | Help | Sign In

Track & Confirm

FAQs

Track & Confirm

Search Results

Label/Receipt Number: 7007 1490 0000 5398 9305 Service(s): Certified Mail™ Status: Delivered

Your item was delivered at 10:41 AM on August 13, 2009 in FARMINGTON, NM 87401.

Track & Confirm

Enter Label/Receipt Number.

U.S. Postal Service w **Notification Options** 9305 Track & Confirm by email Get current event information or updates for y ũ 56 Footen: Can lind Fac 2.80 03056-0241 Site Map Customer Service Forms Gov't Services - Notice Resign Fee (Spelarisment Respired) 2.30 Hora Proceeds Committee Emborarment Republics No FEAR Act 8.12.09 문 Bisti Cod 1 6,66 Yells Produce a Feb. 03056-0179 Mr. Mark Kellu 700 **Bureau of Land Management...** 1235 La Plata Hwy, Ste. A Formington, NM 87401

SENDER: COMPLETE THIS SECTION

81541 Cool 4-1
03056-0177
03056-0170
03056-0170
03056-0170
03056-0170
03056-0170
03056-0170

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 insilpiece, or on the front it space permits.	X Signature
Mr. Mark Kelly Bureau of Land Management 1235 La Plata Hwy, Ste. A	JPA JPA
Farmington, NM 87401	3 Se

COMPLETE THIS SECTION ON DE	(IVERY)
A Signature	
B Bacellett by (Arinica Neilla)	6 Date of Callys
DVS Callyby nagress different from the ITYES elegan delivery nagress belief to LETY LED	
NIB ta may	
3. Service Type (1.5. L	
4 Restricted Delivery? Exten Foot	O Vos

102505-02-44-1540

2: Artible Number.
(Transfor from service label) 7007 1490 0000 5398 9305
PS Form 3814, February 2004 Domestic Return Receipt

http://trkcnfrm1.smi.usps.com/PTSInternetWeb/InterLabelInquiry.do?origTrackNum=70... 2009-08-14



August 12, 2009

Project No. 03056-0179

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

Phone: (505) 599-8900

RE: BISTI COAL 5 COM 1 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 Bisti Coal 5 COM 1 well site, owned and operated by Elm Ridge Exploration. The Bisti Coal 5 COM 1 well site is located in Unit B, Section 5, Township 25N, Range 12W, San Juan County, New Mexico. Closure activities are scheduled to begin on August 17, 2009 and continue through August 21, 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,

ENVIROTECH, INC.

James McDaniel

Project Scientist

imcdaniel@envirotech-inc.com

Enclosure:

Sundry Notice

Cc:

Client File No. 03056

Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

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

5. Lease Serial No. 14-20-603-1292

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an			6. If Indian, Allottee or Tribe Name		
	Use Form 3160-3 (A				
SUBMI	T IN TRIPLICATE - Other	instructions on page 2.		7. If Unit of CA/Agreem	nent, Name and/or No.
1. Type of Well	7.11 			8. Well Name and No.	
Oil Well Gas V	Vell Other		- Jane V	Bisti Coal 5 COM 1	
Name of Operator Elm Ridge Exploration 3a. Address		3b. Phone No. (include a	rea cade)	9. API Well No. 30-045-28197 10. Field and Pool or Ex	moretory Area
PO Box 156 Bioomfield, NM 87413		(505) 632-3476	weu coaej	To. Field and 1 007 07 Ex	pioratory Area
4. Location of Well (Footage, Sec., T., 850 FNL 1630 FEL, 8-5-25N-12W, Lat. 36.435	R.,M., or Survey Description 10 long108.131388			11. Country or Parish, S San Juan County, NM	
12. CHEC	CK THE APPROPRIATE BO	X(ES) TO INDICATE N	ATURE OF NOTI	CE, REPORT OR OTHER	R DATA
TYPE OF SUBMISSION			TYPE OF ACT	TION	
Notice of Intent	Acidize Alter Casing	Deepen Fracture Treat		luction (Start/Resume) amation	Water Shut-Off Well Integrity
Subsequent Report	Casing Repair	New Constructi	= = :	omplete	Other Closure of an Earth Pit
Final Abandonment Notice	Change Plans Convert to Injection	Plug and Aband Plug Back		porarily Abandon er Disposal	- (ι
determined that the site is ready for Elm Ridge Exploration plans to beg Closure activities are scheduled to	in closure activities for an				cations have been made.
14. I hereby certify that the foregoing is Ms. Army Mackey	true and correct. Name (Printe		dministrative Mar	nager	
Signature		Date 0	8/12/2009		
. v	THIS SPACE	FOR FEDERAL O	R STATE OF	FICE USE	
Approved by		T			
Conditions of approval, if any, are attached	d. Approval of this notice doe	s not warrant or certify		D	atc
that the applicant holds legal or equitable entitle the applicant to conduct operations	thereon.		fice		
Title 18 U.S.C. Section 1001 and Title 43 fictitious or fraudulent statements or repr			wingly and willfully	to make to any department	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

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

	IN THE STATE OF TH
Fedex US Airbill Profess AL93 8147 L355	a ozus samseny
1 From Phase post and prespent Date \$ 04/09 Sender's FedEx Account Number 1519-6147-9	4a Express Package Service FedEx Standard Overnight Host bariness orbits of the foliage stay to 150 like. FedEx Front Overnight Host bariness orbits of the foliage stay in the foliage stay is obtained on leading states of the foliage stay is obtained on leading states of the foliage stay is obtained on leading states of the foliage stay is obtained on leading stay in the foliage stay is obtained on leading stay in the foliage stay is obtained on leading stay in the foliage stay in the foli
Sender's James McDariel Phone (505) 632-0615	FedEx 2Day FedEx Express Sever Their backes 6km² Secret Strill WILD Others is related to Manday Secret Strill WILD OTHER STRING TO MANDAY Secret Stril
Address 3795 HIGHWAY 64	Ab Express Freight Service FedEx (Day Freight* Instrument day Freight* Instrument day Freight* Second Evaluations day Freight* Second Evaluations day Freight Third Dephase of Monthly other second Evaluations of the Third Dephase of the Third Dephase of the Third Dephase of Third Dephase o
City FARMINGTON State NM ZIP 87401 2 Your Internal Billing Reference	5 Packaging FedEx Pak* FedEx Dither Envelope* FedEx Stant Feb. Box Tube *Occhared value link SSSS. *Occhared value link SSSS.
2 Your Internal Billing Reference O 3056-072941	6 Special Handling Include FedEx addross in Section 3.
Recipients Brad Jones Phone (505) 476-3487	SATURDAY Destrows NOT Available for st-fedix Location NOT Available for st-fedix Location NOT Available for st-fedix Location NOT Available for steel Exposes See, or fedix 20 reads Does this althousest contact damparous geode? One box must be checked.
company N. M. Oil Conservation Division	No Yes Stephen Separation Support Declaration No. Support No. Support Declaration No. Support No. Supp
Recipient's Address	PERFECTION BUILDE: Britis Feelix Accet. No. or Creek Card No. below.
We cannot deliver to P.O. boxes or P.O. ZPP codes. Address 1220 Sc. St. Francis Drive To request a sankage be held us a specific fedit location, orint fedits address bore.	Sender Recipient Third Perty Credit Card Cash/Check
11.1 000	FedEx Acct, Mo. Depth 22 Quantitated No. Depth 22
on Santa te sum NM ZP 81305	Total Prockages Total Weight Total Declared Value*
0401655191	The fieldity is distinct to SLID criticas you dealers a higher value. See best for dealer, by uning the Adolf you agree to the service conditions on the least of the Adolf and in the current Petits Earth to Make, benching terms that land course per to the conditions.
	8 Residential Delivery Signature Options Hypomegia adjustme, check black or indirect.
Store you wand resses at redex com.	No Signature Required Proteign may be left without ortilizing a migrature to delawar, Fee applies. Indirect Signature Someone at recipient address may sign for children fee applies. Indirect Signature Into one is a reliable at migrature to delawar. Indirect Signature Into one is a reliable at migrature to delawar. Indirect Signature Into one is a reliable at migrature to delawar. Indirect Signature Into one is a reliable at migrature to delawar. Indirect Signature Into one is a reliable at migrature to delawar. Indirect Signature Into one is a reliable at migrature to delawar. Indirect Signature Into one is a reliable at migrature to delawar. Indirect Signature Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to delawar. Into one is a reliable at migrature to the one to

. .

77 - 1

Rev. Data 10/08-Part #150279-01004-2006 FedDePRINTED IN U.S.A.+GRF

· - 1



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,

Project Scientist

incdaniel@envirorech-inc.com

Administrative Manager

amackey levelmridge not

Attachments: Closure Schedule August 2009

Sunday	Monday	Tuesday	Wed	Thurs	Friday	Sat
	<u> </u>					1
2	3	4	5	6	7	8
9	10 Bisti Coal 20-2 Bisti Coal 21-1 Bisti Coal 21 COM 2 Bisti Coal 22-2 Bisti Coal 28-1	11 Bisti Coal 20-2 Bisti Coal 21-1 Bisti Coal 21 COM 2 Bisti Coal 22-2 Bisti Coal 28-1	12 Bisti Coal 20-2 Bisti Coal 21-1 Bisti Coal 21 COM 2 Bisti Coal 22-2 Bisti Coal 28-1	13 Bisti Coal 20-2 Bisti Coal 21-1 Bisti Coal 21 COM 2 Bisti Coal 22-2 Bisti Coal 28-1	14 Blati Coal 20-2 Bisti Coal 21-1 Bisti Coal 21 COM 2 Bisti Coal 22-2 Bisti Coal 28-1	15
16	17 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 5 COM 1 Bisti Coal 5 COM 2 Bisti Coal 5 COM 2 Bisti Coal 5 COM 2 Bisti Coal 16-2	18 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 Bisti Coal 5K COM 2 Bisti Coal 16-2	19 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 Bisti Coal 16-2	20 Bisti Coal 29-1 Bisti Coal 39-2 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 Bisti Coal 5K COM 2 Bisti Coal 16-2	21 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 Bisti Coal 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 8L COM 2 Bisti Coal 9-1 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 8L COM 2 Bisti Coal 9-1 Bisti Coal 9 COM 2	26 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	27 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	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 8L COM 2 Bisti Coal 9-1 Bisti Coal 9 COM 2	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 Bisti Coal 6-1 Carson Unit 15 COM 323 Carson Unit 206					

Sun	Monday	Septembe Tuesday	er 2009 Wed	Thurs	Friday	Sat
		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 Bisti Coal 6-1 Carson Unit 15 COM 323 Carson Unit 206	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 Bisti Coal 6-1 Carson Unit 15 COM 323 Carson Unit 206	3 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 Bisti Coal 6-1 Carson Unit 15 COM 323 Carson Unit 208	4 Carson 10-332 Buena Suerte 3 G COM 1 Buena Suerte 3 L COM 1 Buena Suerte 3 L COM 1 Buena Suerte 32 G COM 1 Buena Suerte 4 L COM 1 East Bisti Coal 6-1 Carson Unit 15 COM 323 Carson Unit 206	5
6	7 Carson Unit 313 Pete Morrow 1 Pete Morrow 2 North Bisti Coal 32M COM 2 Sarn Jackson State COM 1 North Bisti Coal 31-1 West Bisti Coal 11 F COM 1 Jeter COM 2	8 Carson Unit 313 Pete Morrow 1 Pete Morrow 2 North Bisti Coal 32M COM 2 Sam Jackson State COM 1 North Bisti Coal 31-1 West Bisti Coal 11 F COM 1 Jeter COM 2	9 Carson Unit 313 Pete Morrow 1 Pete Morrow 2 North Bisti Coal 32M COM 2 Sam Jackson State COM 1 North Bisti Coal 31-1 West Bisti Coal 11 F COM 1 Jeter COM 2	10 Carson Unit 313 Pete Morrow 1 Pete Morrow 2 North Bisti Coal 32M COM 2 Sam Jackson State COM 1 North Bisti Coal 31-1 West Bisti Coal 11 F COM 1 Jeter COM 2	11 Carson Unit 313 Pete Morrow 1 Pete Morrow 2 North Bisti Coal 32M COM 2 Sam Jackson State COM 1 North Bisti Coal 31-1 West Bisti Coal 11 F COM 1 Jeter COM 2	12
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 14 COM 1 West Bisti Coal 15-1 West Bisti Coal 15-2 West Bisti Coal 22-2	15 West Bisti Coal 12-1 West Bisti Coal 13-1 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 22-2	16 West Bisti Coal 12-1 West Bisti Coal 13-1 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 22-2	17 West Bistl Coal 12-1 West Bistl Coal 13-1 West Bistl Coal 11-2 West Bistl Coal 10-2 West Bistl Coal 14 COM 1 West Bistl Coal 15-1 West Bistl Coal 15-2 West Bistl Coal 22-2	18 West Bisti Coal 12-1 West Bisti Coal 13-1 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 22-2	19
20	West Bisti Coal 22 COM 1 West Bisti Coal 23-1 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 Shella Hixon 1	West Bisti Coal 22 COM 1 West Bisti Coal 23-1 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 Shella Hixon 1	West Bisti Coal 22 COM 1 West Bisti Coal 23-1 West Bisti Coal 24-1 West Bisti Coal 24 COM 2 West Bisti Coal 25-1 West Bisti Coal 25-1 West Bisti Coal 25 2Y Jicarilla Apache I-11 Sheila Hixon 1	West Bisti Coal 22 COM 1 West Bisti Coal 23-1 West Bisti Coal 24-1 West Bisti Coal 24 COM 2 West Bisti Coal 25-1 West Bisti Coal 25-1 West Bisti Coal 25 2Y Jicarilla Apache I-11 Shella Hixon 1	West Bisti Coal 22 COM 1 West Bisti Coal 23-1 West Bisti Coal 24-1 West Bisti Coal 24-COM 2 West Bisti Coal 25-1 West Bisti Coal 25-2 Jicarilla Apache I-11 Sheila Hixon 1	26
27	28	29	30			

ELM RIDGE EXPLORATION BISTI COAL 5 COM 1 SEC. 5, TWN 25N, RGE 12W PROJECT NO. 03056-0179

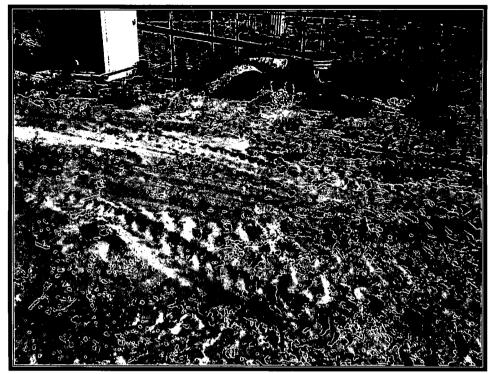


Photo 1: Bisti Coal 5 COM 1 Well Site Overview

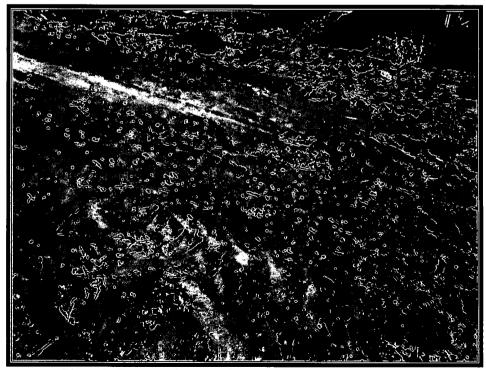


Photo 2: Excavated Area After Backfilling and Recontouring



EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Elm Ridge Exploration

Project #:

03056-0179

Sample No.:

1

Date Reported:

9/16/2009

Sample ID:

Earth Pit Comp @1' Below

ted:

8/20/2009

Sample Matrix:

Soil

Date Sampled: Date Analyzed:

Analysis Needed:

8/20/2009 TPH-418.1

Preservative: Condition:

Parameter

Cool and Intact

	· · · · · · · · · · · · · · · · · · ·	Det.
;	Concentration	Limit

Total Petroleum Hydrocarbons

ND

(mg/kg)

5.0

(mg/kg)

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:

Bisti Coal 5 COM 1

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

James McDaniel

Printed

Greg Crabtree

Printed



CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Cal. Date:

20-Aug-09

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
ТРН	100		
•	200	208	
•	500		
	1000		

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

// Son!	9/16/09
Analyst	Date
James McDaniel	
Print Name	
Muy Calk	5/16/09
Review	Date
Greg Crabtree	

Print Name



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	ElmRidge	Project #:	03056-0179
Sample ID:	Earth Pit Comp @ 1'	Date Reported:	08-25-09
Laboratory Number:	51365	Date Sampled:	08-20-09
Chain of Custody:	7793	Date Received:	08-20-09
Sample Matrix:	Soil	Date Analyzed:	08-24-09
Preservative:	Cool	Date Extracted:	08-21-09
Condition:	Intact	Analysis Requested:	BTEX

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

ND - Parameter not detected at the stated detection limit.

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

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

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

USEPA, December 1996.

Comments:

Bisti Coal 5 Com 1

Analyst

Review



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	08-24-BT QA/QC	Date Reported:	08-25-09
Laboratory Number:	51252	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-24-09
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. je 0 - 15%	Blank Conc	Detect
Benzene	4.1794E+006	4.1878E+006	0.2%	ND	0.1
Toluene	3.8929E+006	3.9007E+006	0.2%	ND	0.1
Ethylbenzene	3.4950E+006	3.5020E+006	0.2%	ND	0.1
p,m-Xylene	9.0451E+006	9.0632E+006	0.2%	ND	0.1
o-Xylene	3.3639E+006	3.3706E+006	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample Du	iplicate	%Diff.	Accept Range	Detect. Limit
Benzene	6.2	5.9	4.8%	0 - 30%	0.9
Toluene	14.9	15.2	2.0%	0 - 30%	1.0
Ethylbenzene	8.8	8.2	6.8%	0 - 30%	1.0
p,m-Xylene	28.9	28.4	1.7%	0 - 30%	1.2
o-Xylene	13.7	12.9	5.8%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample Amo	unt Spiked Spik	ed Sample	% Recovery	Accept Range
Benzene	6.2	50.0	55.4	98.6%	39 - 150
Toluene	14.9	50.0	64.4	99.2%	46 - 148
Ethylbenzene	8.8	50.0	57.3	97.4%	32 - 160
p,m-Xylene	28.9	100	120	92.9%	46 - 148
o-Xylene	13.7	50.0	62.0	97.3%	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 51252 - 51253, 51352 - 51354, 51356, and 51362 - 51365.

Analyst

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



Chloride

Client:	Elm Ridge	Project #:	03056-0179
Sample ID:	Earth Pit Comp @ 1'	Date Reported:	08-25-09
Lab ID#:	51365	Date Sampled:	08-20-09
Sample Matrix:	Soil	Date Received:	08-20-09
Preservative:	Cool	Date Analyzed:	08-21-09
Condition:	Intact	Chain of Custody:	7793

Parameter

Concentration (mg/Kg)

Total Chloride

5

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:

Bisti Coal 5 Com 1.

Analyst

Review

CHAIN OF CUSTODY RECORD

7793

Client: Elas Rido	 R <i>C</i>	- I	Project Name / I			COM	ĺ	<u></u>	ANALYSIS / PARAMETERS														
Client Address:)	Ś	ampler Name:	•				-	8015)	1 8021)	8260)	<u>s</u>			0								
Client Phone No.:		(Dient No.: 230 SG	-0	179			_	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P		TPH (418.1)	RIDE				Sample Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.	i	ample ⁄latrix	No./Volume of Containers	Prese	ervative	TPH (ВТЕХ	Noc (RCRA	Cation	RCI	TCLP	₩.	трн (CHLORIDE				Sampl	Samp
Earth Pit	8/20/09	0940	51365	Soil Solid	Sludge Aqueous	1/402		K		X								X				/	/
				Soil Solid	Sludge Aqueous																		:
				Soil Solid	Sludge Aqueous																		
				Soil Solid	Sludge Aqueous																		
				Soil Solid	Sludge Aqueous				_										<u> </u>				
				Soil Solid	Sludge Aqueous																		-
	<u> </u>	 		Soil Solid	Sludge Aqueous				_														-
				Soil Solid	Sludge Aqueous	,																	
				Soil Solid	Sludge Aqueous																		
Relinquished by: (Signatur		<u> </u>	<u> </u>	Soil Solid	Sludge Aqueous	Time				(Ciana	-4		<u></u>							D-4		Time	
Relinduished by: (Signa	ature)		<i>-</i>	5/29	13:30	Time	l He	eceive Leve	a by:	(Signa	A		<u></u>	,						9at	e/ اوی/	Tim (3	- 1
Relinquished by: (Signa	alure						Re	eceive	ed by:	(Signa	ature)	Ü	·					-					
Relinquished by: (Signa	ature)						Re	eceive	ed by:	(Signa	ature)						·····					.	
					3	env				e de											1		

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

				A STATE OF THE STA
PAGE NO: OF	43 envir	ofech	ENVIRONM	ENTAL SPECIALIST:
DATE STARTED: 6/20/09	(505) 632-0619	(800) 362-1879	LAT:	
DATE FINISHED: 8/20/109	5796 U.S. Huny 64, F	armington, NW 87401	LONG:	· · · · · · · · · · · · · · · · · · ·
	ORT: BGT / PIT CLO	STIDE VEDIEICA		
				DO
LOCATION: NAME: Rist' Coal S LEGAL ADD: UNIT: SEC	<u>COM WELL#: 1</u> : 5 TWP: 25		NENT PIT: イ スル P	BGT: M: NMPM
	Sale CANTEST	ST: W	7	IVI. 10/ / /
			CLEDICALAR	DA CE
EXCAVATION APPROX: FT. DISPOSAL FACILITY: Environtech	X FT. X Lancicom #aREMEDIA		CUBIC YAR	DAGE:
	-C-14-201- 8455		VOLUME: A	A
CONSTRUCTION MATERIAL: Earth	DOUBLE-WALLED, V	WITH LEAK DETECTIO		
LOCATION APPROXIMATELY:	FT.	FROM WELLHEAD		
DEPTH TO GROUNDWATER:			•	
TEMPORARY PIT - GROUNDWATER SO		VO A TENTI (410.1) + 0.50	00 . /I CITI O	NIDES 4 500 #
BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, Gf		00 mg/kg, 1PH (418.1) ≤ 250	io mg/kg, CHLO	RIDES ≤ 500 mg/kg
TEMPORARY PIT - GROUNDWATER ≥		0 ~// TDH (410 1) < 250	0 ma/ka CHI OE	DDES < 1000 mg/kg
BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, GR	O & DRO FRACTION (8013) \$ 50	U mg/kg, 1PH (418.1) ≤ 23U	o mg/kg, Crilor	KIDES S 1000 nig/kg
PERMANENT PIT OR BGT	₩ (410 1) < 100 ma/les CHI ODID)	75 × 250 ma/lea		
BENZENE ≤ 0.2 mg/kg, BTEX ≤ 50 mg/kg, TP	· · · · · · · · · · · · · · · · · · ·	,	•	,-
TIME SAM	PLE I.D. LAB NO. WEIGHT (g)	D 418.1 ANALYSIS mL FREON DILUTION	N READING	CALC. (mg/kg)
0100 20	0 STD -	· · · · · · · · · · · · · · · · · · ·	208	
0940 EP	CAP 11 1 5.0	20 4	10-1	<u>. C</u>
	3			
	4. 5			
	6		╂┈┷┼	· · · · · · · · · · · · · · · · · · ·
PERIMETER	FIELD CHLORIDE	S RESULTS	PROF	ILE
	SAMPLE DEADDIG	CALC.	9	\
11N'	IDREADING	(mg/kg)	P	
1110	EP (onf 1' 0.4	(27)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1
			/	
MR			<i></i>	
ASTI L	PID RESU			
	SAMPLE ID	RESULTS (ppm)		
	510-100	103	_	
	EPCOND 1	0-C	}	J721
		/	the of	70
EP			et al	•
LAB SAMPLES NO	TES:	<u> </u>	·	
SAMPLE ID ANALYSIS RESULTS	· Arie ·			
BENZENE				,
BTEX GRO & DRO				
CHLORIDES				,
	DV ODDED #	MITO ODDEDED		
l lwo	RKORDER#	WHO ORDERED		



Bill of Lading

NIFEST # 34092

PHON	ONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401 DATE 3 20 0 16 16 16 16 16 16 16 16 16 16 16 16 16											
LOAD	CON	IPLETE DESCR	PTION OF SHIF	MENT			TRANSPORTING COMPANY					
NO.	POINT OF ORIGIN	DESTINATION	MATERIAL	GRID	YDS	BBLS	COMPANY	TRK#	TIME	DRIVER SIGNATURE		
1	Bisti Coal	LFII	CONIT	BIG	12		4-4	178	857	almin		
	5kcom 2	,]	· · ·								
					12							
	Elm Ridge Bistí Coal S Com 1	LFI	Cont. Soil	13-19	1	_	4-4	178	857			
	Elm Ridge Bisti Coal 4 COM2	LFI	cont- Soil	13-19	1		4-4	178	857			
			attached	labs	Fer C	hbri	des for o	bone	Srt	·\$		
		4	,/									
,	1 Jan	rs MeD	anie l									
RESUL	FG:			Pa 1.			NOTES:					
298	CHLORIDE TEST	LANDFARM EMPLOYEE:	Gay	0611	nso,		_	ERED	AUG	2 1 2009		
I ualis	PAINT FILTER TEST	above location he	a not been added	to or mixed	المصم والخنيد	(M)		from the	ob a va va			
	the material hauled from the additional materials have been						ne material received	nom me	above r	mentioned Generator, and		
NAME !	John MC	Person	COMPANY	Low	- Far		SIGN	IATURE		In Merry		
COMPA	NY CONTACT DO BCA	<u>/</u>	PHONE	327-	-27/	<u>/</u>	DATE	5	20	· 09		

<u>District I</u> 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 1220 S. St. Francis Dr., Santa Fe, NM 87505 2009 FEB 6 PM 2

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 the state of the same pitch NMOCD.

provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or active Method De

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
lease 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 avironment. 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: Bisti Coal 5 COM 1
API Number: 3004528197 OCD Permit Number:
U/L or Qtr/Qtr B Section 5 Township 25N Range 12W County: San Juan
Center of Proposed Design: Latitude <u>36.435111</u> Longitude <u>-108.131389</u> NAD: □1927 ☑ 1983
Surface Owner: S Federal State Private Tribal Trust or Indian Allotment
2.
☑ Pit: Subsection F or G of 19.15.17.11 NMAC Ceased emptying into prior to June 16, 2008
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_2'_
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
Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume:bbl Type of fluid: Tank Construction material:
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.

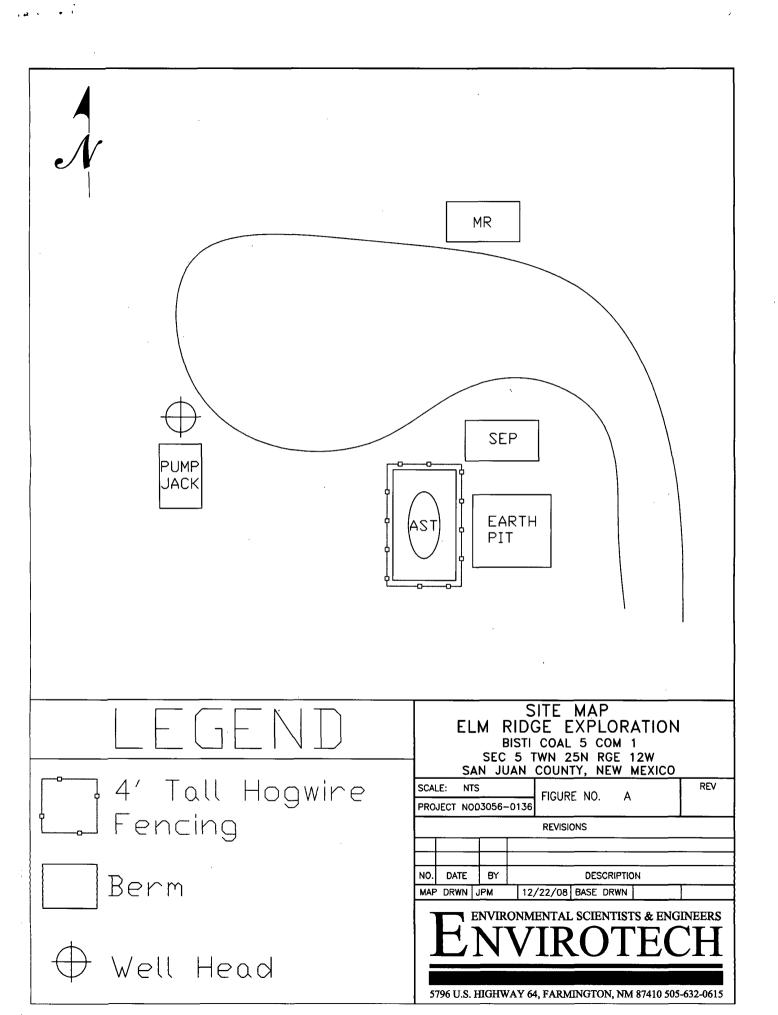
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)	
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, a	hospital.
institution or church)	,,
Four foot height, 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.	
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 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 acceptance.	otable source
material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro-	priate district
office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dryi	
above-grade tanks associated with a closed-loop system.	ng paus oi
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.	☐ Yes ☐ No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ Vaa □ Na
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	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No
- (Applies to temporary, emergency, or cavitation pits and below-grade tanks) (□ NA
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	☐ Yes ☐ No ☐ NA
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	
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
	☐ Yes ☐ No
	☐ 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 Besign (attach copy of design) 711 Prainter.
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 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

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids, 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 o Yes (If yes, please provide the information below) No		
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 Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	e requirements of Subsection H of 19.15.17.13 NMA(of 1 of 19.15.17.13 NMAC	C
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the provided below. Requests regarding changes to certain siting criteria may requi considered an exception which must be submitted to the Santa Fe Environmenta demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC	re administrative approval from the appropriate distral Bureau office for consideration of approval. Justi	rict 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; Database search; USG	ta 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; Database search;	ta 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; Da	ta obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	gnificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellit		☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that les watering purposes, or within 1000 horizontal feet of any other fresh water well or NM Office of the State Engineer - iWATERS database; Visual inspection	spring, in existence at the time of initial application.	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh wat adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approx	•	☐ Yes ☐ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visu	nal 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-Minin	g and Mineral Division	☐ Yes ☐ No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geolog Society; Topographic map 	gy & 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 the by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Construction/Design Plan of Temporary Pit (for in-place burial of a drying Protocols and Procedures - based upon the appropriate requirements of 19.1 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 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	quirements of 19.15.17.10 NMAC of Subsection F of 19.15.17.13 NMAC appropriate requirements of 19.15.17.11 NMAC pad) - based upon the appropriate requirements of 19. 5.17.13 NMAC quirements of Subsection F of 19.15.17.13 NMAC of Subsection F of 19.15.17.13 NMAC drill cuttings or in case on-site closure standards cann H 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, accurate and complete to the best of my knowledge and belief.		
Name (Print): Ms. Amy Mackey	Title: Administrative Manager	
Signature:	Date: 2-4-09	
E-mail address: amackey1@elmridge.net	Telephone:	
20. OCD Approval: Permit Application (including closure plan) Closure Plan (only) COCD Conditions (see attachment)		
OCD Representative Signature: lail & Phares	Approval Date: 2/18/2009	
OCD Representative Signature: lail phores Title: Environmental Engineer	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 Date:		
	Closure Completion Date.	
22. Closure Method: Waste Excavation and Removal On-Site Closure Method Altern If different from approved plan, please explain.	native Closure Method	
Closure Report Regarding Waste Removal Closure For Closed-loop System Instructions: Please indentify the facility or facilities for where the liquids, dr two facilities were utilized. Disposal Facility Name: Disposal Facility Name: Were the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one of the closed-loop system operations and associated activities performed on one operation and operation operations are closed-loop system operations and associated activities performed on operations and associated activities performed on operations are closed-loop system operations and associated activities performed on operations are closed-loop system operations and associated activities performed on operations are closed-loop system operation	Disposal Facility Permit Number: Disposal Facility Permit Number: Disposal Facility Permit Number: or in areas that will not be used for future service and operations?	
Closure Report Attachment Checklist: Instructions: Each of the following mark in the box, that the documents are attached. 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		
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 complies with all applicable closure requirements and conditions specified in the approved closure plan.		
Name (Print):	Title:	
Signature:	Date:	
E-mail address:	Telephone:	



EARTHEN PIT CLOSURE PLAN

SITE NAME:

BISTI COAL 5 COM 1 UNIT LETTER B, SECTION 5, TOWNSHIP 25N, RANGE 12W SAN JUAN COUNTY, NEW MEXICO LATITUDE 36.435111 LONGITUDE -108.131389

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 BISTI COAL 5 COM 1 SAN JUAN COUNTY, NEW MEXICO

TABLE OF CONTENTS

<u>INTRODUCTION</u>	1
SCOPE OF CLOSURE ACTIVITIES	1
<u>REPORTING</u>	3

Introduction

Elm Ridge Exploration would like to submit a closure plan for the earthen pit at the Bisti Coal 5 COM 1 well site located in the NW ¼ NE ¼ of Section 5, Township 25N, Range 12W, 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 Bisti Coal 5 COM 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 proximity 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 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 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 requirement. Closure activities that will take place on tribal land will have notifications sent by certified mail, return receipt requested, to the appropriate tribal office. 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, re-contour 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. 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

Y /

Arhy Mackey

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.

- 1. 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.
- 2. 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 twelve (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 twelve (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.