Distric-I

1625 N. French Dr , Hobbs, NM 88240

District II

1301 W Grand Ave, Artesia, NM 88210

District III

1000 Rio Brazos Rd , Aztec, NM 87410

Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505

State of New Mexico

Energy Minerals and Natural Resources

Department

Form C-144 July 21, 2008

For temporary pits, closed-loop sytems, 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

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District IV appropriate NMOCD District Office 1220 S. St Francis Dr., Santa Fe, NM_87505 Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit X Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances Operator: Burlington Resources Oil & Gas Company, LP OGRID#: 14538 Address: PO Box 4289, Farmington, NM 87499 Facility or well name: LEO MANNING 100 API Number: OCD Permit Number U/L or Qtr/Qtr: P(SE/SE) Township: 29N Section: 11 11W Range: County: San Juan 107.95515 °W NAD: 1927 X 1983 Center of Proposed Design: Latitude: 36.73552 °N Longitude: Surface Owner: X Federal State Private Tribal Trust or Indian Allotment X Pit: Subsection F or G of 19 15 17 11 NMAC X Drilling | Workover Permanent Emergency | X Cavitation P&A X LLDPE HDPE PVC Other X Lined Thickness 12 mil Unlined Liner type. X String-Reinforced Liner Seams X Welded X Factory Other Volume. 4400 bbl Dimensions L 65' Closed-loop System: Subsection H of 19 15 17 11 NMAC Workover or Drilling (Applies to activities which require prior approval of a permit or P&A Drilling a new well notice of intent) Above Ground Steel Tanks Haul-off Bins Drying Pad Other Lined Unlined Thickness mıl LLDPE HDPE PVD Other Liner type. Liner Seams Welded Factory Other Below-grade tank: Subsection I of 19.15 17 11 NMAC FEB 2010 Type of fluid Volume bbl OIL CONS. DIV. DIST Tank Construction material. E082728283 Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Visible sidewalls and liner Visible sidewalls only Other ☐ HDPE Liner Type Thickness $\exists PVC$ Other Alternative Method:

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

0	Fencing: Subsection D of 19.15 17 11 NMAC (Applies to permanent pit, 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, hospital, institution or church)								
	Four foot height, four strands of barbed wire evenly spaced between one and four feet								
	X Alternate Please specify 4' hogwire fence with a single strand of barbed wire on top.								
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	Street C. Loudin C. S1015 17 11 NMAC								
	Signs: Subsection C of 19 15 17 11 NMAC 12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers								
	X 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 of the Santa Fe Environmental Bureau office for consideration of approval (Fencing/BGT Liner)								
	Exception(s) Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.								
16									
	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 - 1WATERS database search; USGS; Data obtained from nearby wells	Yes	No						
	Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa lake	Yes	□No						
	(measured from the ordinary high-water mark).								
	- 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	Yes	∐No						
	application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks)	□NA							
	- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	LINA							
	Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes	□No						
	(Applied to permanent pits)	- NA							
	- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	LJ''"`							
	Within 500 horizonal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering	Yes	□No						
	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	Yes	No						
	adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality; Written approval obtained from the municipality								
	Within 500 feet of a wetland.	Yes	∏No						
	- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site		_						
	Within the area overlying a subsurface mine. Written confirmation or verification or man from the NM EMNED. Mining and Minaral Division.	Yes	□No						
	- Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	∏v _{aa}							
	 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological 	Yes	∐No						
	Society; Topographic map								
	Within a 100-year floodplain	Yes	No						
	- FEMA map	J	,						

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
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
Design Plan - based upon the appropriate requirements of 19.15.17.10 NWAC
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 or Permit
12
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19 15 17 9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents 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 Description Appropriate Description (ottook convert descript) ADI
Previously Approved Design (attach copy of design) API Previously Approved Operating and Maintenance Plan API
Previously Approved Operating and Maintenance Plan API
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 (I) of Subsection B of 19.15 17.9 NMAC
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
Climatological Factors Assessment
Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
Dike Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15.17.11 NMAC
Leak Detection Design - based upon the appropriate requirements of 19.15 17.11 NMAC
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
Quality Control/Quality Assurance Construction and Installation Plan
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19 15.17.11 NMAC
Nuisance or Hazardous Odors, including H2S, 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
14
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: X Drilling Workover Emergency X 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)
X On-site Closure Method (only for temporary pits and closed-loop systems)
X In-place Burial On-site Trench
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
— The state of the
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

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16 Waste Removal Closure For Closed-loop Systems That Utilize Above Gro	and Steel Tanks or Haul-off Rius Only. (19 15 17 13 D NMAC)	•				
Instructions Please identify the facility or facilities for the disposal of liquids,	drilling fluids and drill cuttings Use attachment if more than two	o				
facilities are required Disposal Facility Name	Disposal Faculty Permit #					
Disposal Facility Name	Disposal Facility Permit # Disposal Facility Permit #					
Disposal Facility Name: Will any of the proposed closed-loop system operations and associated	• · · · · · · · · · · · · · · · ·	e service and				
Yes (If yes, please provide the information No						
Required for impacted areas which will not be used for future service and ope Soil Backfill and Cover Design Specification - based upon the a		AC.				
Re-vegetation Plan - based upon the appropriate requirements of	• • •					
Site Reclamation Plan - based upon the appropriate requirement	s of Subsection G of 19 15 17.13 NMAC					
17						
Siting Criteria (Regarding on-site closure methods only: 19 15 17 10						
Instructions Each siting criteria requires a demonstration of compliance in the closs certain siting criteria may require administrative approval from the appropriate dist						
office for consideration of approval Justifications and/or demonstrations of equival						
Ground water is less than 50 feet below the bottom of the buried waste		Yes X No				
- NM Office of the State Engineer - (WATERS database search, USGS I	Data obtained from nearby wells	∐N/A				
Ground water is between 50 and 100 feet below the bottom of the burie	d waste	X Yes No				
- NM Office of the State Engineer - IWATERS database search, USGS, D	ata obtained from nearby wells	□ N/A				
Ground water is more than 100 feet below the bottom of the buried was	ste	Yes X No				
- NM Office of the State Engineer - 1WATERS database search, USGS, D	ata obtained from nearby wells	□N/A				
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other (measured from the ordinary high-water mark)	significant watercourse or lakebed, sinkhole, or playa lake	Yes X No				
- Topographic map, Visual inspection (certification) of the proposed site		İ				
Within 300 feet from a permanent residence, school, hospital, institution, or chi		Yes X No				
- Visual inspection (certification) of the proposed site; Aerial photo, satellit	Vec VNe					
Within 500 horizontal feet of a private, domestic fresh water well or spring that	t less than five households use for domestic or stock watering	Yes X No				
purposes, or within 1000 horizontal fee of any other fresh water well or spring, - NM Office of the State Engineer - iWATERS database; Visual inspection	in existence at the time of the initial application					
Within incorporated municipal boundaries or within a defined municipal fresh vipursuant to NMSA 1978, Section 3-27-3, as amended.		Yes X No				
Written confirmation or verification from the municipality, Written appro Within 500 feet of a wetland	val obtained from the municipality	Yes X No				
- US Fish and Wildlife Wetland Identification map, Topographic map, Vis	sual inspection (certification) of the proposed site	Yes X No				
Within the area overlying a subsurface mine	, , , , , ,	Yes X No				
- Written confiramtion or verification or map from the NM EMNRD-Minim	g and Mineral Division					
Within an unstable area		Yes X No				
Engineering measures incorporated into the design, NM Bureau of Geolo Topographic map	gy & Mineral Resources, USGS, NM Geological Society,					
Within a 100-year floodplain - FEMA map		Yes X No				
On-Site Closure Plan Checklist: (19 15 17 13 NMAC) Instructions	: Each of the following items must bee attached to the clos	sure plan. Please indicate,				
by a check mark in the box, that the documents are attached.	magnetic requirements of 10.15.17.10 NIMAC					
X Siting Criteria Compliance Demonstrations - based upon the app X Proof of Surface Owner Notice - based upon the appropriate req						
X Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15 17 11 NMAC						
Construction/Design Plan of Temporary Pit (for in place burial of		f 19 15 17 11 NMAC				
Protocols and Procedures - based upon the appropriate requirem						
Confirmation Sampling Plan (if applicable) - based upon the app		С				
Waste Material Sampling Plan - based upon the appropriate requ						
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						
Re-vegetation Plan - based upon the appropriate requirements of						
Site Reclamation Plan - based upon the appropriate requirement	s of Subsection G of 19 15 17 13 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
Signature Date
e-mail address
20 OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)
OCD Representative Signature: Bold Old Approval Date: 4-9-10
Title: Ensivolopec OCD Permit Number:
Title: Ensire (Spec 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 Potos
Closure Completion Date:
22
Closure Method:
Waste Excavation and Removal On-site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)
If different from approved plan, please explain
23
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:
Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.
Disposal Facility Name Disposal Facility Permit Number.
Disposal Facility Name Disposal Facility Permit Number
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?
Yes (If yes, please demonstrate complilane to the items below)
Required for impacted areas which will not be used for future service and operations
Site Reclamation (Photo Documentation)
Soil Backfilling and Cover Installation
Re-vegetation Application Rates and Seeding Technique
24
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in
the box, that the documents are attached.
Proof of Closure Notice (surface owner and division)
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 (if applicable)
Disposal Facility Name and Permit Number
Soil Backfilling and Cover Installation
Re-vegetation Application Rates and Seeding Technique
Site Reclamation (Photo Documentation)
On-site Closure Location. Latitude. Longitude NAD 1927 1983
Operator Clearus Certifications
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is ture, 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:



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

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SJ 01426	DOM	SJ		4	7	14		11W		4068747*	155	10	145
SJ 01774	DOM	SJ	2	4	3	14	29N	11W	235440	4068045*	82	6	76
SJ 01851	DOM	SJ		4	4	10	29N	11W	234586	4069572*	125	48	77
SJ 02378	DOM	SJ	2	3	4	15	29N	11W	234229	4068080*	75	12	63
SJ 02466	POL	SJ	3	3	4	11	29N	11W	235694	4069436*	66		
SJ 02466 S	POL	SJ	3	3	4	11	29N	11W	235694	4069436*	65		
SJ 02991	DOM	SJ	2	4	3	13	29N	11W	237048	4067998*	60		
SJ 03136	DOM	SJ	4	4	3	13	29N	11W	237048	4067798*	20		
SJ 03164	DOM	SJ	1	2	4	14	29N	11W	236060	4068423*	75	56	19
SJ 03175	DOM	SJ	1	2	4	14	29N	11W	236060	4068423*	60	24	36
SJ 03360	DOM	SJ	2	4	3	14	29N	11W	235440	4068045*	40		
SJ 03550	STK	SJ	1	2	3	14	29N	11W	235252	4068445*	10		
SJ 03579	DOM	SJ	1	4	4	15	29N	11W	234431	4068068*	83	30	53
SJ 03733 POD1	DOM	SJ	1	2	4	15	29N	11W	234444	4068469*	64	20	44
SJ 03847 POD1	DOM	SJ	3	3	3	14	29N	11W	234873	4067937	74	27	47
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Record Count: 17

PLSS Search:

Section(s): 1, 2, 3, 10, 11,

12, 13, 14, 15

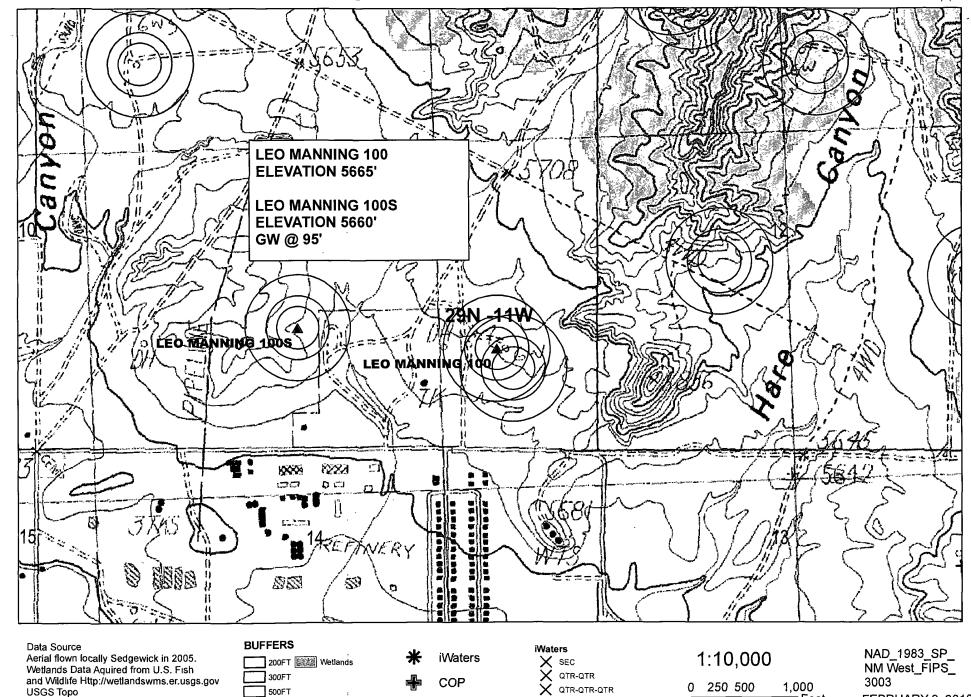
Township: 29N

Range: 11W

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the data.

TOPO_LEO MANNING 100



_ Feet

FEBRUARY 9, 2010

OCD CATHODIC PROTECTION DEEPWELL GROUNDBED REPORT DATA SHEET: NORTHWESTERN NEW MEXICO:

LOCATON INFORMATION
WHI HAME OR PPHINE SERVICE LEG MARRING IT TOOK I I SHI LOCATION SOCIETA SERVICE INSTALLABILI BATE 1/27/07
PPED RECIPIER NO.: ADDITIONAL WELLS:
TYPE OF LEASE BIRDURE 17 m - 048571
GROUND BED INFORMATION
TOTAL DEPTH 300 CASHE DIABETH: 8" TYPE ST CASHE PUC CASHE DEPTH 300" CASHE CENTERIO. (20)
TOP EMEDIE 1900 BOTTOM ARROSE REPUL 390
MINE NETHS: 3-90, 3-80 370 H10,350 340,430,430,40,200
AND OF SHIE 2 100 of 65
WATER BETTERMATION WATER BEPTHE 25 not WATER REPHIZE NOT.
OTHER INFORMATION TOP OF SHAT PERFARATIONS: 1-40 VERY PERFORME 200' BERRAUS:

IF ANY OF THE ABOVE DATA IS UNAVAILABLE, PLEASE INDICATE SO. COPIES OF ALL LOGS, INCLUDING DRILLERS LOGS, WATER ANALYSIS, AND WELL BORE SCHEMATICS SHOULD BE SUBMITTED WHEN AVAILABLE. UNPLUGGED UNABANDONED WELLS ARE TO BE INCLUDED.

*- LAND TYPE MAY BE SHOWN: F-FEDERAL; HINDIAN; S-STATE; P-FEE

IF FEDERAL OR INDIAN, ADD LEASE NUMBER,

UNITED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN DUPLICATE
(See other instructions on reverse cade)

5. LEASE DESIGNATION AND SERIAL NO.

DEPARTMENT OF THE INTERIOR rowers tale)									Expires: December 31, 1991 5. LEASE DESIGNATION AND SERIAL NO.			
BUREAU OF LAND MANAGEMENT										····		
WELL	OMDLI	TION OP	DECOMP	LETION REP	ODT A	UN TA	YG*	8. IF	NM-048571	EE OR TRIBE NAME		
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At total de	•	ne as above										
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								· ·	San Juan	New Mexico		
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GR.C		THER EGGS ROA					:	27. 11.	no .			
28.				CASING RECORD	(Report all str	inas set in	well)		```			
CASING SIZ	E/GRADE	WEIGHT, LBJFT.	DEPTH SET (CEMENTING REC	ORD	· Al	MOUNT PULLED		
					0.4	4	/#4-A		ADDI			
7", J-55 4.5", J-5		20# 10.5 \·	131' 2167'	8 3/4" 6 1/4"	Surface: 3		(54cf) (488cf)		3BBL 30bbi			
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29.		LINER RE			30.				ING RECORD	``		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEME	NT SCREEN (MD)	Siz 2-3/8",4.		DEPTH SET	(MD)	P/	ACKER SET (MD)		
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		D (Interval, size and m	umbe)	32.			OT, FRACTURE					
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33.					RODUCTION	<u> </u>						
DATE FIRST PE SI				Towing, gas lift, pumping Flowing					SI	Producing of shut-in)		
DATE OF TEST		HOURS TESTED	CHOKE SIZE	PROD'N FOR OIL-	-BBL	GAS-M	CF	WATE	FA-BBL	GAS-OIL RATIO		
12/03/08	ł	1	1/2"		0	3	mcf/h	0.04	bbl/h			
FLOW. TUBING	PRESS.	CASING PRESSURE	CALCULATED	OIL-BBL	GAS-A	CF .	WATER-B	ı		OIL GRAVITY-API (CORR.)		
SI-8		SI-400	24-HOUR RATE	0	62	mcf/d	1	bbl/d		· ; · ·		
To be sold	i. Waiting		•	ore can first deli	ver.				TEST WITNESS	ED BY		
35. LIST OF A		s one Fruitland	Coal Wall									
				plate and correct as deb	ermined from eli	evallable re	cords					
SIGNED	2	4	<u> </u>	LE Regulatory To	echnician			DATE		12/13/2008		
JIGNEU Z				er vehaloral 1								

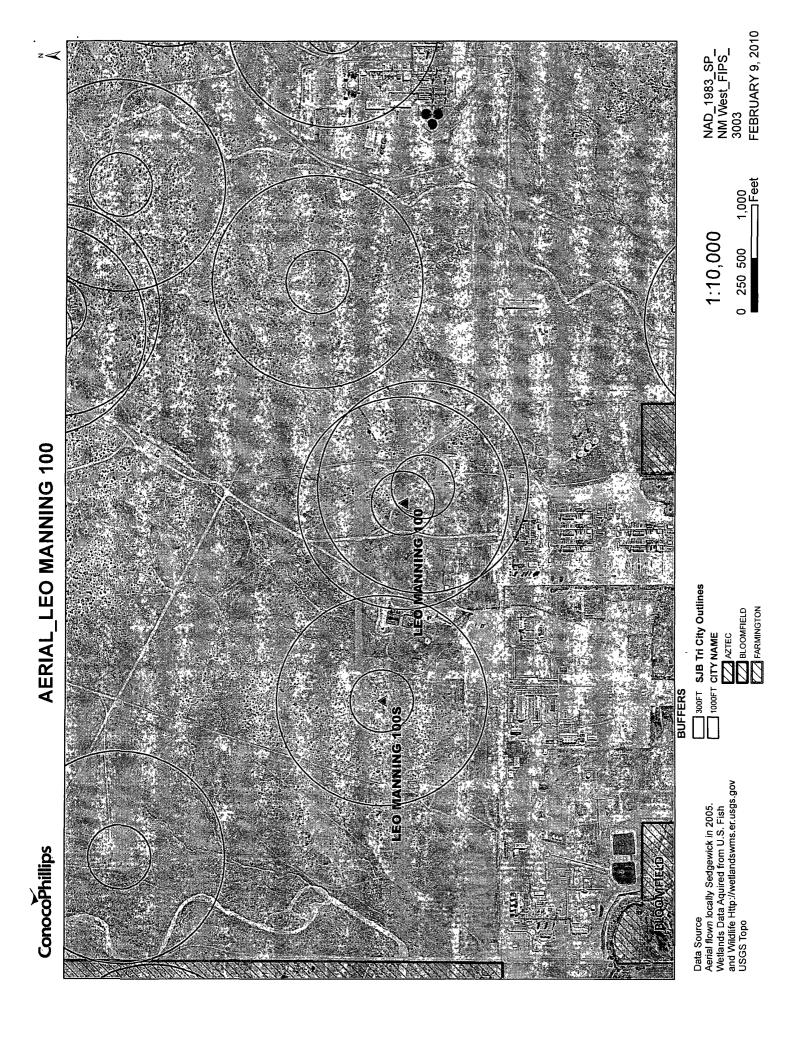
*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department of agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

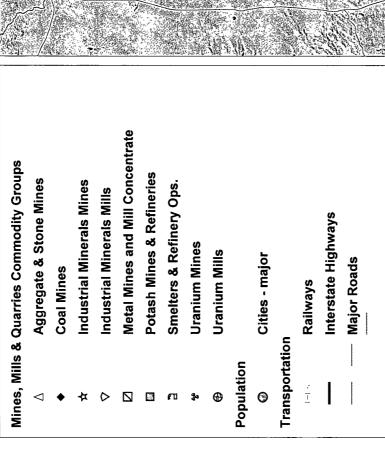
ACCEPTED FOR RECORD

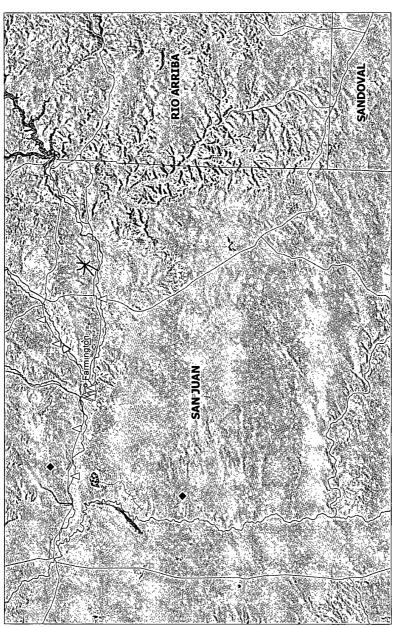
CEC 2 9 2023

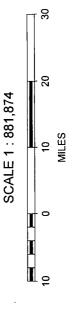
FARMINISTON FIELD OFFICE
BY IL SAMPES



LEO MANNING 100 MINES MILLS & QUARRIES







Siting Criteria Compliance Demonstration & Hydro Geologic Analysis

The Leo Manning 100 is not located in an unstable area. The location is not over a mine and is not on the side of a hill as indicated on the Mines, Mills and Quarries Map and Topographic Map. The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other watercourse as indicated on the Topographic Map. The location is not within a 100-year floodplain area as indicated on the FEMA Map. The Cathodic well data from the Leo Manning 100S has an elevation of 5660' and groundwater depth of 95'. The subject well has an elevation of 5665' which is 5' greater than the Leo Manning 100S, therefore the groundwater depth is greater than 100'. There are no iWATERS data points located in the area as indicated on the TOPO Map. The hydro geologic analysis indicates the groundwater depth and the Nacimiento formation will create a stable area for this new location.

Hydrogeological Report for Leo Manning 100

Regional Geological context:

The Nacimiento Formation is of Paleocene age (Baltz, 1967, p. 35). It crops out in a broad band inside the southern and western margins of the central basin and in a narrow band along the west face of the Nacimiento Uplift. The Nacimiento is a nonresistant unit and typically erodes to low, rounded hills or forms badland topography.

The Nacimiento Formation occurs in approximately only the southern two-thirds of the San Juan Basin where it commformably overlies and intertongues with the Ojo Alamo Sandstone (Fassett, 1974, p. 229). The Nacimiento Formation grades laterally into the main part of the Animas Formation (Fassett and Hinds, 1971, p. 34); thus, in this area, the two formations occupy the same stratigraphic interval.

Strata of the Nacimiento Formation were deposited in lakebeds in the central basin area with lesser deposition in stream channels (Brimhall, 1973, p. 201). In general, the Nacimiento consists of drab, interbedded black and gray shale with discontinuous, white, medium- to very coarse grained arkosic sandstone (Stone e al., 1983, p.30). Stone et al. indicated that the formation may contain more sandstone than commonly reported because some investigators assume the slope-forming strata in the unit area shales, whereas in many places the strata actually are poorly consolidated sandstones. Total thickness of the Nacimiento Formation ranges from about 500 to 1,300 feet. The unit generally thickens from the basin margins toward the basin center (Steven et al., 1974). The sandstone deposits within the Nacimiento Formation are much thinner than the total thickness of the formation because their environment of deposition was localized stream channels (Brimhall, 1973, p. 201). The thickness of the combined San Jose, Animas, and Nacimiento Formations ranges from 500 to more than 3.500 feet.

Hydraulic Properties:

Reported well yields for 53 wells completed in either the Animas or Nacimiento Formations range from 2 to 90 gallons per minute and the median yield is 7.5 gallons per minute. The primary use of water from Nacimiento and Animas Formations is domestic and livestock supplies. There are no known aquifer tests for the Animas or Nacimiento Formations, but specific capacities reported for six wells range from 0.24 to 2.30 gallons per minute per foot of drawdown (Levings et al., 1990).

The Animas and Nacimiento Formations are in many ways hydrologically similar to the San Jose Formation because sands in both units produce approximately the same quantities of water. However, the greater percentage of fine materials in the Animas and Nacimiento Formations may restrict downward vertical leakage to the Ojo Alamo Sandstone or Kirtland Shale. The poorly cemented fine material is highly erodible, forms a badland terrain, and supports only spotty vegetation. These conditions are more conductive to runoff than retention of precipitation.

References:

Baltz, E.H., 1967, Stratigraphy and regional tectonic implications of part of Upper Cretaceous rocks, east-central San Juan Basin, New Mexico: USGS Professional Paper

552, 101 p.

Brimhall, R.M., 1973, Ground-water hydrology of Tertiary rocks of the San Juan Basin, New Mexico, in Fassett, J.E., ed., Cretaceous and Tertiary rocks of the Southern Colorado Plateau: Four Corners Geological Society Memoir, p. 197-207. Fassett, J.E., 1974, Cretaceous and Tertiary rocks of the eastern San Juan Basin, New

Mexico and Colorado, in Guidebook of Ghost Ranch, central-northern New Mexico: New Mexico Geological Society, 25th Field Conference, p. 225-230.

Fassett, J.E., and Hinds, J.S., 1971, Geology and fuel resources of the Fruitland Formation and Kirtland Shale of the San Juan Basin, New Mexico and Colorado: USGS Professional Paper 676, 76 p.

Levings, G.W., Craigg, S.d., Dam, W.L., Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan structural basin, New Mexico, Colorado, Arizona, and Utah: USGS Hydrologic Investigations Atlas HA-720-A, 2 sheets.

Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrologic Report 6.

Jaramillo, Marie E

From:

Jaramillo, Marie E

Sent:

Tuesday, February 09, 2010 3:05 PM

To:

'mark_kelly@nm.blm.gov'

Subject:

SURFACE OWNER NOTIFICATION 02/09/10

The subject well will have a temporary pit that will be closed on site. Please let me know if you have any questions. Thanks

LEO MANNING 100

Marie Jaramillo Staff Regulatory Tech. ConocoPhillips Office # (505) 326-9865 Fax # (505) 599-4062 mailto:marie.e.jaramillo@conocophillips.com DISTRICT I 1625 M. French Dr., Hobbs, N.M. 68240 State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised October 12, 2005

DEFINICE H 1201 Y. Grand Avenue, Artesio, N.M. 88210

Submit to Appropriate District Office State Lease - 4 Copies

DESTRICT III 1000 Bio Bresse Rd., Astec, N.M. 87410

DISTRICT IV 1220 S. St. Francis Dr., Santa Pe, HM 87505 State Lease — 4 Copies Fee Lease — 3 Copies

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 67505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	*Pool Code *Pool Basin FRUITLAND COAL/BLANC		
Property Code A722267	*Property Name LEO MANNING	* Veil Number 100	
TOGRID No.	*Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP	* Riovation 5665*	

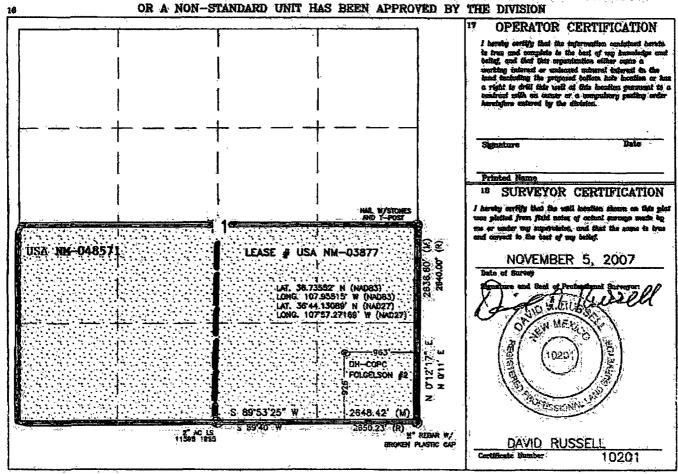
¹⁰ Surface Location

UL or lot no.	- Section	Township	Bange	Lot ide	Foot from the	North/South line	Feet from the	East/West line	County
P	11	29N	Wit		926'	SOUTH	963'	EAST	SAN JUAN

11 Bottom Hole Location If Different From Surface

									4.1.1	
UL or	lot no.	Bection	Township	Range	Lot Idn	Post from the	North/South line	Foot from the	East/West line	County
320.	ated Acre	s – (S.		s Joint or	lofiii	¹⁴ Consolidation (ode	is Order No.		
160.	DO Acre	s - (Si	(2) FC (4) PC							

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



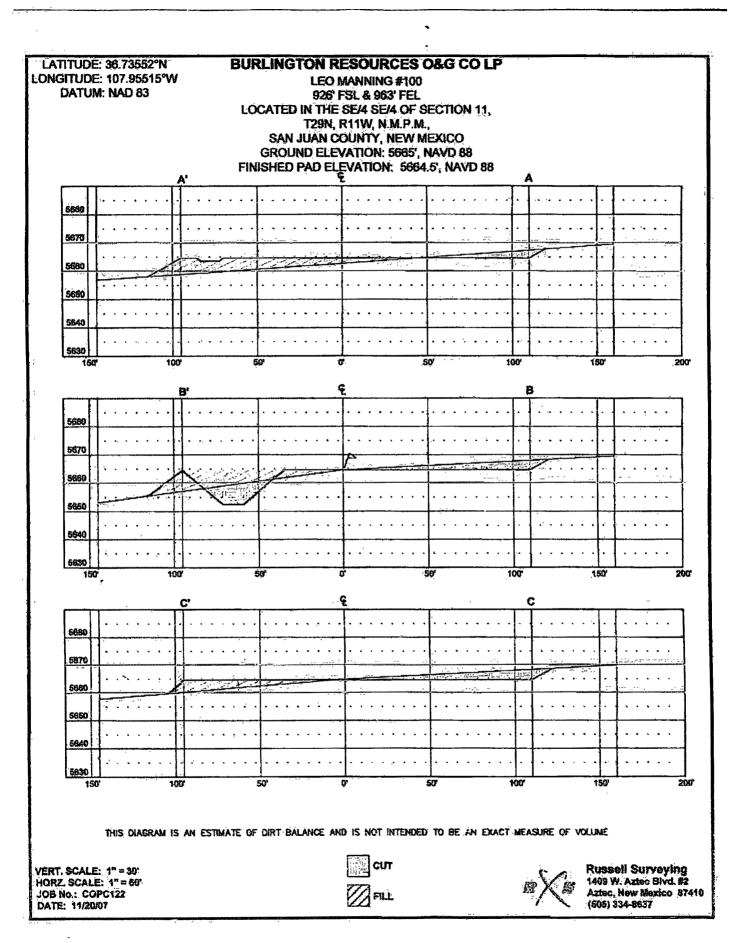
LATITUDE: 36.73552°N **BURLINGTON RESOURCES O&G CO LP** LONGITUDE: 107.95515°W **LEO MANNING #100** DATUM: NAD 83: 926' FSL & 963' FEL LOCATED IN THE SE/4 SE/4 OF SECTION 11. SLOPES TO BE CONSTRUCTED TO T29N, R11W, N.M.P.M., MATCH THE ORIGINAL CONTOURS AS CLOSE AS POSSIBLE SAN JUAN COUNTY, NEW MEXICO 30 80, **GROUND ELEVATION: 5665', NAVD 88** FINISHED PAD ELEVATION: 5664.5', NAVD 88 SCALE = 60' B'F+7.5 2/1 Slopes Reserve Pit O. RIG ANCHOR RIG ANCHOR REAR LAYDOWN' DISTURBANCE Wellhead to back Wellhead to front C-0.0 N 63'29'10" W 120' DRY HEAD FUGELSON 42 RIG ANCHOR 0 ACCESS... EDGEOF RIO ANCHOR C-3.8 d C-3.4 EXISTING PAO NOTE: 305" x 340" =2.38 ACRES OF DISTURBANCE Russell Surveying SCALE: 1" = 60' 1409 W. Axtec Bivd. #2

JOB No.: COPC122 DATE: 11/20/07

reserve pit dike: to be 8' above deep side (gverflow — 3' wide and 1' above shallow side). Russell surveying, inc. 15 not liable for underground utilities or pipelines. Contractor should call one—call for location of any marked or unmarked, buried pipelines or CABLES ON WELL PAD, IN CONSTRUCTION ZONE AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.



Aztec, New Mexico 87410 (505) 334-8637



Burlington Resources Oil & Gas Company, LP San Juan Basin Closure Plan

In accordance with Rule 19.15.17.12 NMAC the following information describes the closure requirements of temporary pits on Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of closure of pit closure. Closure report will be filed on C-144 and incorporate the following:

- Details on Capping and Covering, where applicable.
- Plot Plan (Pit Diagram)
- Inspection Reports
- Sampling Results
- C-105
- Copy of Deed Notice will be filed with County Clerk

General Plan:

- All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves. The facilities to be used will be Basin Disposal (Permit #NM-01-005) and Envirotech Land Farm (Permit #NM-01-011)
- 2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all the criteria listed in sub-section (B) of 19.15.17.13 are met.
- 3. The surface owner shall be notified of BR's closing of the temporary pit prior to closure as per the approved closure plan via certified mail, return receipt requested.
- 4. Within 6 months of the Rig Off status occurring BR will ensure that temporary pits are closed, re-contoured, and reseeded.
- 5. Notice of Closure will be given prior to the Aztec Division office between 72 hours and one week via email, or verbally. The notification of closure will include the following:
 - i. Operator's name
 - Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 6. Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liner will be disposed of at the San Juan County Landfill located on CR 3100.
- 7. Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul.

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	1000(500

9. A five point composite sample will be taken from the cavitation pit pursuant to 19.15.17.13(B)(1)(b)(i) in order to assure there has not been any type of release.

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	500

- 10. Upon completion of solidification and testing standards being passed, the pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. If standard testing fails BR will dig and haul all contents pursuant to 19.15.17.13.i.a. After doing such, confirmation sampling will be conducted to ensure a release has not occurred.
- 11. During the stabilization process if the liner is ripped by equipment the Aztec OCD office will be notified within 48 hours and the liner will be repaired if possible. If the liner can not be repaired then all contents will be excavated and removed.
- 12. Dig and Haul Material will be transported to the Envirotech Land Farm located 16 miles south of Bloomfield on Angel Peak Road, CR 7175. Permit # NM010011
- 13. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 14. Notification will be sent to OCD when the reclaimed area is seeded.
- 15. BR shall seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) 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. Repeat seeding or planting will be continued until successful vegetative growth occurs.

Туре	Variety or Cultivator	PLS/A
Western wheatgrass	Arriba	3.0
Indian ricegrass	Paloma or Rimrock	3.0
Slender wheatgrass	San Luis	- 2.0
Crested wheatgrass	Hy-crest	3.0
Bottlebrush Squirreltail	Unknown	2.0
Four-wing Saltbrush	Delar	.25

Species shall be planted in pounds of pure live seed per acre: Present Pure Live Seed (PLS) = Purity X Germination/100

Two lots of seed can be compared on the basis of PLS as follows:

Source No. One (poor quality)

Purity

50 percent

Germination

40 percent

Percent PLS

20 percent

Percent

5 lb. bulk seed required to make 1 lb. PLS

Source No. two (better quality)
Purity 80 percent
Germination 63 percent
Percent PLS 50 percent

2 lb. bulk seed required to make 1 lb. PLS

16. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.