District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

Form C-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

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

# Pit. Below-Grade Tank or

Proposed Alternative Method Permit or Closure Plan Application
Type of action:  Below grade tank registration  Permit of a pit or proposed alternative method  Closure of a pit, below-grade tank, or proposed alternative method  Modification to an existing permit/or registration  Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, 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.
1. Operator: Breitburn Operating LP Oddress: 1401 McKinney Street Houston, Texas 77010 Facility or well name: Libby Minerals LLC 1931 COM No. 2-2-N
Address: 1401 McKinney Street Houston, Texas 77010
Facility or well name: Libby Minerals LLC 1931 COM No. 2-2-N
API Number: 30 - 021 - 20688 OCD Permit Number:
U/L or Qtr/Qtr N Section 2 Township 19N Range 31E County: Harding
Center of Proposed Design: Latitude N 35.9026205 Longitude W -103.6194411 NAD: ☐1927 ■ 1983
Surface Owner:  Federal State Private Tribal Trust or Indian Allotment
Temporary: Drilling Workover  Permanent Emergency Cavitation P&A Multi-Well Fluid Management Low Chloride Drilling Fluid yes no  Lined Unlined Liner type: Thickness 20 mil LLDPE HDPE PVC Other  String-Reinforced  Liner Seams: Welded Factory Other Volume: 4992 (total) bbl Dimensions: L80' x W80' x D6'
3.  Below-grade tank: Subsection I of 19.15.17.11 NMAC  Volume:
Tank Construction material:
Secondary containment with leak detection  Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thicknessmil
4.  Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
5.
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, hospital,
institution or church)  Rour foot height, four strands of harbed twice evenly spaced between one and four feet
Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specify

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)	
7.  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 19.15.16.8 NMAC	
Variances 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:  Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	otable source
General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.  - INM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.  NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No NA (unknow
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. ( <b>Does not apply to below grade tanks</b> )  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ■ No
Within the area overlying a subsurface mine. (Does not apply to below grade tanks)  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ■ No
Within an unstable area. (Does not apply to below grade tanks)  - 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. (Does not apply to below grade tanks)  - FEMA map	☐ Yes ■ No
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ■ No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ■ No
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.  NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ■ No

Within 100 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ■ No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Permanent Pit or Multi-Well Fluid Management Pit	
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 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, 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 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the docattached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19. and 19.15.17.13 NMAC  Previously Approved Design (attach copy of design) API Number: or Permit Number: or Permit Number:	O NMAC  15.17.9 NMAC
Multi-Well Fluid Management Pit 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 do attached.  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  A List of wells with approved application for permit to drill associated with the pit.  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC  Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Previously Approved Design (attach copy of design) API Number: or Permit Number: or Permit Number:	

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 description is the subsection of the	locuments 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  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										
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 Multi-well Fl 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	uid Management Pit									
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be a closure plan. Please indicate, by a check mark in the box, that the documents are attached.  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C 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 H of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC										
15. 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 sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. P 19.15.17.10 NMAC for guidance.										
Ground water is less than 25 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No									
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No									
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No									
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (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 application.  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ■ No									
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ■ No									
Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No									
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; 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	☐ 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	
Within a 100-year floodplain.	Yes No
- 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 plby 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 E of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17. Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19. 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 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	11 NMAC 15.17.11 NMAC
17. 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 bel	ief.
Name (Print): Shelly Doescher Title: Agent	
Signature: Shelly Woescher Date: 08/31/2015	
e-mail address: shelly_doescher@yahoo.com Telephone: 505-320-5682	
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)	/ /
OCD Representative Signature: Approval Date: ///	04/15
Title: Singineer OCD Permit Number:	
19. Closure Report (required within 60 days of closure completion): 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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date:	the closure report. t complete this
Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-le If different from approved plan, please explain.	oop systems only)
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please in 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 for private land only) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Latitude Longitude NAD: 1927	

Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this closure report belief. I also certify that the closure complies with all applicable closure requirement.	
Name (Print):	Title:
Signature:	Date:
e-mail address:	Telephone:

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone (575) 393-6161 Fax (575) 393-0720

Phone (575) 748-1283 Fax (575) 748-9720

Phone: (575) 748-1283 Fax: (575) 748-6720 <u>District III</u>
1000 Rio Brazos Rd., Aztec, NM 37410 Phone: (505) 324-6178 Fax: (505) 334-6170 <u>District IV</u>
1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3482

**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

Form C-101 August 1, 2011

Permit 205620

			А	PPLICAT	TON FOR	R PERMI	T TO DE	RILL, F	RE-ENTER	R, DEEP	EN, PLU	JGBA	CK, OF	ADD A	ZONE			
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4. Propert				5.			DALGILA	1021	COM					6.				
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			plied wil	h 19.15.14.	.9 (A) NMA	C 🔀 and	or 19.15.	14.9 (B	)									
Signatur	e																	
Printed Na	me:	Electron	ically file	d by Jeanie	Mcmillan				Appr	oved By:			_					
Title:									Title:					ЮГ				
Email Add	ress			gbreitburn.c											Expiration Date	8/23/20	)17	
Date:		8/17/201	15		Pho	ne: 713-63	2-8534		Con	ditions of	Approval	Attach	ed					

Descrict I
1625 N. French Dr., Hobba, NM 88240
1625 N. French Dr., Hobba, NM 88240
Phone: (\$73) 393-6161 Fac: (\$75) 393-0720
Descrict II.
811 S. Frest St., Arnosis, NM 88210
Phone: (\$73) 748-1281 Fac: (\$75) 748-9720
Descrict III.
1000 Rio Bissans Rand, Assec, NM 87410
Phone: (\$05) 334-6178 Fax: (\$05) 334-6170
District IV.
1220 S. St. Frencis Dr., Santa Pc, NM 87505
Phone: (\$05) 476-3460 Fax: (\$05) 476-3462

### State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

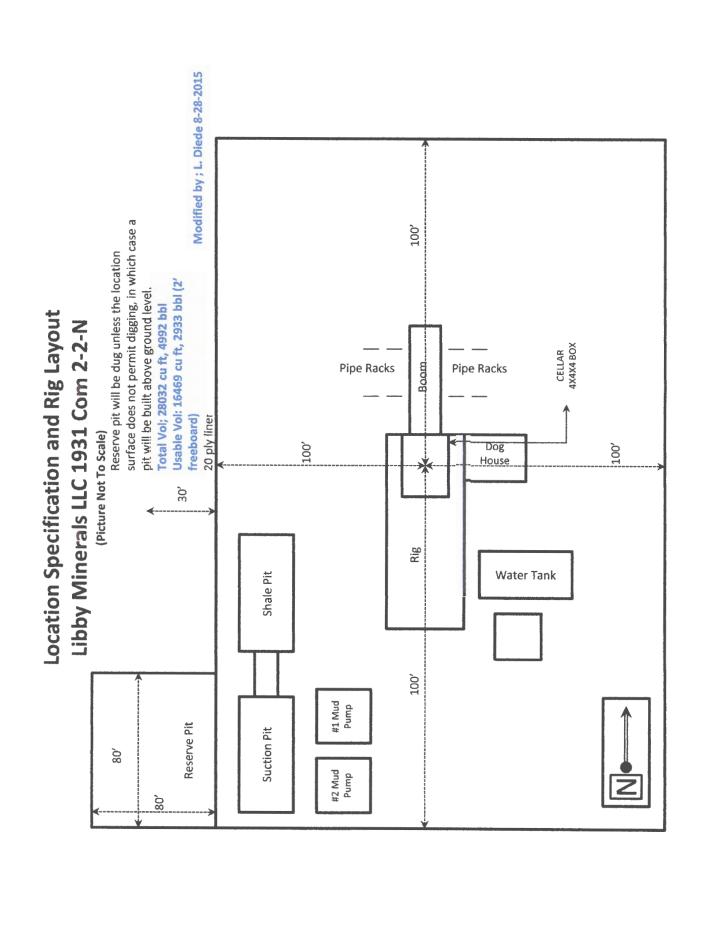
☐ AMENDED REPORT

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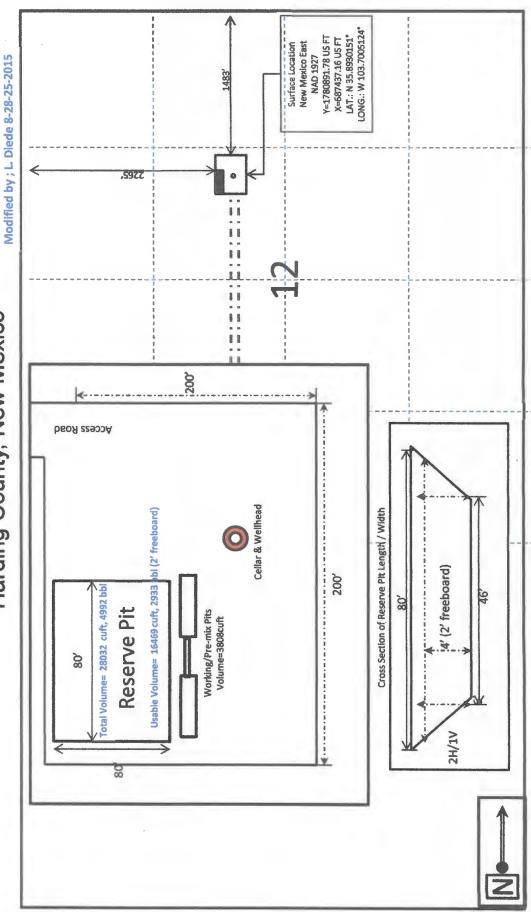
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Prope	ty Code				Property	Name				И	Vell Number			
397	72		LII	BBY MI.	NERA	LS LLC	1931		l	2-2-N				
	ID No.			Operator Name										
370080			BRI	BREITBURN OPERATING L.P.										
				Surfa	ice L	ocation								
UI. or lot no. Section Township Range					Lot Idn	Feet from the	North/South line	Feet from the	East/West line		County			
N	2	19 NORTH	31 EAST, N.A	<i>I.P.M</i> .		1200	WES	T HARDING						
	<del>-</del>		Bottom Hole	e Locatio	on If I	Different F	rom Surfac	e						
/L or lot no.	Section	Township	Range		Lot Idn	Feet from the	North/South line	Feet from the	East/We	st line	County			
		T												
Dedicated	Acres	Joint or Infill	Consolidation Code	Order No.										
			this completion un											

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.

		3	OPERATOR CERTIFICATION
			I hereby certify that the information contained herein is true and
1			complete to the best of my knowledge and belief, and that this
	1		organization ather owns a working insenst or unleased mineral
			interest in the land including the proposed bottom hole location or
4	1		has a right to drill this well at this location pursuant to a contract
			with an owner of such a numeral or working interest, or to a
			voluntary pooling agreement or a compulsory pooling order
			herenofere entered by the division
	2-1-G O		Signature Date: 06-17-2015
,			Shelly Doescher
			Printed Name
			shelly_doescher@yahoo.com  E-mail Address
<u> </u>	<del></del>		
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	'		SURVEYOR CERTIFICATION
og to /			I hereby certify the Boy well to the person on this
	'		I hereby certify that fill well location method on this plat was plotted from Geldhales of behal surveys
			plat was pilited from Girlander of Calual surveys made by the parallel my supervision and that the same is the Cand correct to the best of hybridief.
			10/ (45070) 12
			744Y × 2015 / E
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1500'			Signature and Superior Sional Lines
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	25.5 103.0103233		Certificate hydrider 15079
			WO# 150507WL-h (KA)



Pit Plot
BreitBurn Operating L.P.
Libby Minerals LLC 1931 Com 2-2-N
T-19-N, R-31-E, Section 2, NMPM
Harding County, New Mexico



D-D Consulting Services, Inc.

# Pit Volume Calculations

The pit volume was calculated using the following Rectangular Trapezoidal Trough equation:

V = H[ab + 0.5(W-a)b + 0.5 (L-b)a + (1/3)(W-a)(L-b)]

Calculation inputs

For a pit of 80' x 80' surface diminsions and a Slope of 2H: 1V

Width at top of the pit	Length at top of the pit	Width of pit base	Length of pit base	Height of depth of pit	Total Volume of Pit Usable Volume, with a 2' freeboard deduction	80 72	80 72	99 99	95 95	6 4	
W = W	L= Le	A = E	b= Le	H= H	Ţ	= M	-	11	= q	# <b>I</b>	

Referenced Link for Calculations: http://www.had2know.com/academics/rectangular-trapezoid-trough-volume.html



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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.) (R=POD has been replaced, O=orphaned, C=the file is

closed)

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

(quarters are smallest to largest) (N

(NAD83 UTM in meters)

(In feet)

Ministriii	,												
POD Number	POD Sub- Code basin County		Q 16			Two		×.	Y	Distance			Water Column
TU 00691	HA						32E	628793	3973581*	4233			COMMIN
TU 00672	НА	4	3	4	32	20N	32E	629969	3975412*	5560	110		
TU 01363	НА	3	4	3	29	20N	31E	619705	3976900*	5660	160	24	130
TU 00678	НА	3	3	2	20	19N	32E	629866	3969776*	6781	60		
TU 01913 POD1	НА	4	3	4	12	19N	30E	617252	3972037 🏀	7596	250		
TU 00676	НА	4	1	3	29	19N	32E	629294	3967747*	7851	100		
TU 00671	НА	1	3	3	29	19N	32E	629100	3967544*	7902	100		
TU 00677	НА	1	2	1	15	19N	32E	632661	3972040*	8318	48		
TU 00682	НА	1	2	1	28	19N	32E	631096	3968787*	8359	100		
TU 00679	НА	2	1	4	21	19N	32E	631687	3969600*	8370	60		
TU 00689	НА	2	3	4	03	19N	32E	633236	3974062*	8652	100		
TU 00673	НА	3	4	2	34	20N	32E	633388	3976308*	9095	114		
TU 00697	НА	4	1	1	05	18N	32E	629335	3965334* 🌍	9907	35		

Average Depth to Water:

24 feet

Minimum Depth:

24 feet

Maximum Depth:

24 feet

**Record Count: 13** 

UTMNAD83 Radius Search (in meters):

Easting (X): 624583

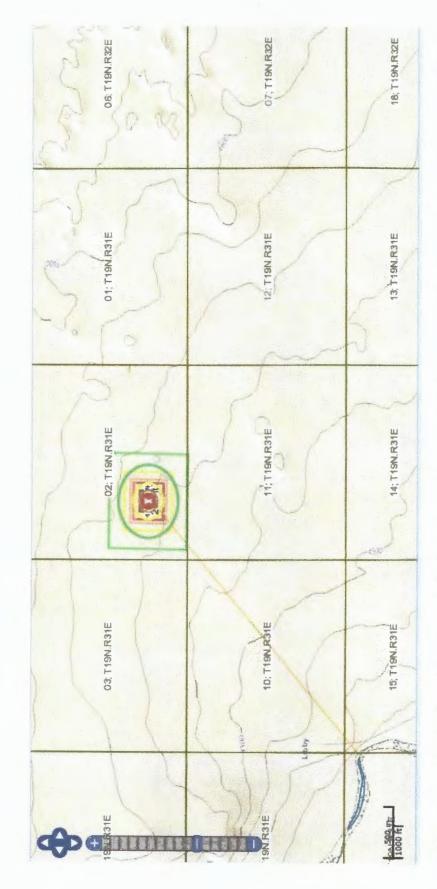
Northing (Y): 3974028

**Radius: 10000** 

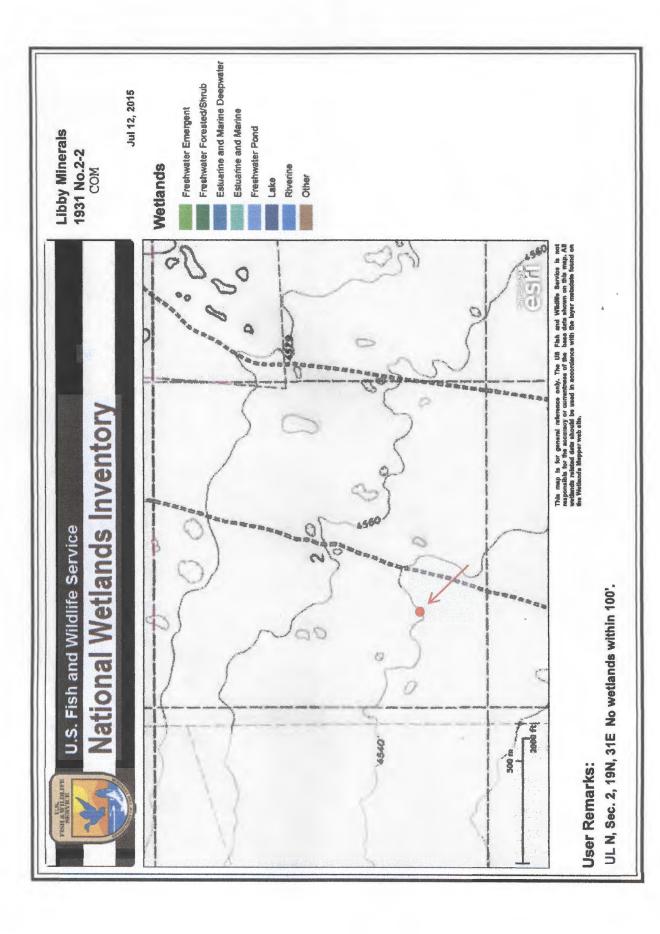
\*UTM location was derived from PLSS - see Help

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.

# LIBBY MINERALS LLC 1931 COM 2-2-N USGS TOPO



Location is not within 100 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lakes.



LIBBY MINERALS LLC 1931 COM No. 2-2-N Aerial T19N R31E Sec 2, UL N



Libby Minerals LLC 1931 No. 2-2-N ENMRD ACTIVE MINES 34 35 3 ( sefe N. 10 15 Legend Aggregates Etc. Pumice Limestone Clay & Shale / Brick Salt Metals Coal Scoria Other Gypsum Travertine Perlite Humate Zeolites Potash Limestone Aggregates Etc. **Pumice** Metals Clay & Shale / Brick Salt Other Coal Scoria Perlite Gypsum Travertine Potash Humate Zeolites

### Armijo, Randall, EMNRD

Today at 10:47 AM

To shelly\_doescher@yahoo.com

To: Ms Doescher

After some research as to whether there are any abandoned mines located in Harding County I have determined that it is highly unlikely any underground mines of any size are located in the county. The nearest mines are located in Colfax county. There are some deposits of uranium and perlite in Harding County but no significant mining occurred for these minerals.

Randall L. Armijo
Environmental Coordinator
NM Abandoned Mine Land Program, EMNRD
Recordinatorio (Astataunus)

505-476-3426

### **Breitburn Operating LP**

### Hydrogeological Data

### Well Name:

Libby Minerals LLC 1931COM No. 2-2-N

### Topography:

This location is within the Great Plains Physiographic Province, with flat to rolling prairie and scattered hills and bluffs. The land generally rises westward, giving way to the frontal ranges of the Rocky Mountains. Elevation of the referenced well is approximately 4546 feet above the mean sea level. The location is on a gentle to moderate western slope. According to topographic maps and an aerial photo, the well pad is located approximately 2.0 miles east-northeast of Del Muerto Creek.

### Geology:

The surface geology within the proposed project area is Jurassic Entrada Sandstone, a formation of the San Rafael group. Entrada sandstone consists of fine-grained sandstone in regular beds less than a foot thick. It includes thin sheets and small aggregates of gypsum, many lenticular beds of gypsiferous shale, some calcareous shale, and small amounts of conglomerate made up of pellets of clay and fragments of quartz.

Source: U.S.Geological Survey (USGS). 2005.

### Surface Hydrology:

Northeastern New Mexico is drained by the Arkansas River and its tributary, the Canadian River. Depending on local topography, runoff from the location would flow southwestward to westward into an unnamed, ephemeral tributary of Ute Creek, or west-southwest for 1.0 to 2.0 miles into Ute Creek.

### **Ground Water Hydrology:**

This location is within central Harding County, New Mexico, within the Great Plains Physiographic Province. The High Plains aquifer extends westward into eastern Harding County, but in the proposed project region there is no principal aquifer. Aquifers do not exist here, yield too little water to wells to be significant, or yield sufficient water to supply local requirements but are not extensive enough to be classified as a major aquifer.

Breitburn Operating LP

Well Name: Libby Minerals LLC 1931 COM No. 2-2-N

**Temporary Reserve Pit Application** 

### Siting Criteria

### 1. Depth to groundwater (should not be less than 25 feet):

Depth to groundwater is unknown at this location. According to New Mexico State Engineers Office Waters Database, the nearest recorded well with available water-depth information is approximately 2.63 miles from the location. (See Database printout). Because depth to groundwater is unknown, Breitburn auger drilled a test hole to thirty one feet (31'), a depth of twenty five feet (25') plus six feet (6') depth of pit. Depth was determined by the measured length of each drill string component. Twenty four hours after drilling, Breitburn tested for the presence of water. Test confirmed no water at a depth of 31 feet. Leonard Lowe, NMOCD Environmental Bureau, was notified of test results.

2. <u>Distance to watercourse (should not be within 100 feet of a continuously flowing watercourse or 200 feet of any other significant watercourse or lakebed, sinkhole or playa lake):</u>

As shown on the attached USGS TOPO Map and the U.S. Fish and Wildlife Services Wetlands Inventory Map, there are no continuously flowing watercourses within 100' of the temporary pit, or any significant watercourses, lakebeds, sinkholes or playa lakes within 200' of the temporary pit.

3. Distance to buildings (should not be within 300 feet of any permanent buildings):

Aerial photos and a visit to the location indicate that the pit will not be within 300 feet of any of these locations. There are no permanent residences, schools, hospitals, institutions or churches within 300' of the temporary pit.

- 4. Distance to springs or wells (should not be within 200 feet of a private, domestic fresh water well or spring used by less than five (5) households, or within 1000 feet of any other fresh water well or spring):

  Air photos and Waters Database printout indicate the pit will not be within 200 feet of any recorded well or spring.
- 5. Presence within incorporated area (should not be within incorporated municipal boundaries or within defined municipal fresh water well field covered under municipal ordinance):

Air photos and a site visit indicate the pit will not be within an incorporated area or municipal fresh water field.

6. <u>Distance to wetlands (should not be within 100 feet):</u>

The temporary pit is not within 100 feet of any wetlands. (See attached Wetlands Inventory Map).

7. Location above subsurface mine (should not overlie a subsurface mine):

There are no subsurface mines in Section 12, T19N, R30E. The Mines, Mills, and Quarries map, and a site survey indicate that there are no subsurface mines in the area. The attached letter from Mr. Randall L. Armijo, Environmental Coordinator, NM Abandoned Mine Land Program, EMNRD confirms the absence of abandoned mines in the area.

8. Presence within unstable area (should not be within an unstable area):

A topographic map and aerial photo indicate the location will not be within an unstable area. The location is not over a mine and is on a moderate to gentle western slope. The location of the excavated pit material will not be located within 100 feet of a continuously flowing watercourse or 200 feet from any other watercourse. The stockpile will be on location and will meet criteria.

9. Presence within floodplain (should not be within a 100-year floodplain):

The location (Harding County, NM) has not been mapped by FEMA. However, aerial photos and offset drilling permits indicate that the location is not within a floodplain.

# Breitburn Operating LP Temporary Pit Design and Construction Plan

In accordance with Rule 19.15.17 the following information describes the design and construction for temporary pits on Breitburn Operating LP (Breitburn) locations; this is the Breitburn standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit that does not conform to this plan.

### General Plan

- 1. Breitburn will design and construct a temporary pit to contain liquids and solids, prevent contamination of fresh water and protect public health and the environment.
- 2. Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration.
- 3. Breitburn will post a well sign, in compliance with 19.15.17.11C, not less than 12" x 24" with lettering not less than 2" in height, in a conspicuous place on the fence surrounding the pit. The sign will list the operator on record as the operator, the location of the well by unit letter, section, township, range, and emergency telephone numbers.
- 4. Breitburn will fence or enclose the pit in a manner that deters unauthorized access and shall maintain the fences in good repair. If the temporary pit is within 1000' of an occupied residence, it will be enclosed with a chain link fence, not less than six feet in height with at least two strands of barbed wire at the top. Breitburn will fence any other pit to exclude livestock with a four foot fence that has at least four strands of barbed wire evenly spaced in the interval between one foot and four feet above ground level. Temporary pits will be fenced at all times excluding drilling or overwork operations, when the front side of the fence will be temporarily removed for operational purposes.
- 5. Breitburn shall construct the temporary pit so that the foundation and interior slopes are firm and free of rocks, debris, sharp edges or irregularities to prevent liner failure.
- Breitburn shall construct the pit so that the slopes are no steeper than two horizontal feet to one vertical foot.
- 7. Pit walls will be walked down by a crawler type tractor following construction.
- 8. All temporary pits will be lined with a 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements.
- Geotextile will be installed beneath the liner when rocks, debris, sharp edges or irregularities cannot be avoided.
- 10. All liners will be anchored in the bottom of a compacted earth-filled trench not less than 18 inches deep.
- 11. Breitburn will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used whenever possible. Breitburn will ensure all field seams are welded by qualified personnel. Field seams will be overlapped four to six inches and will be oriented parallel to the line of maximum slope. Breitburn will minimize the number of field seams in corners and irregularly shaped areas.
- 12. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system.
- 13. The pit shall be protected from run-off by constructing and maintaining diversion ditches or berms around the location or around the perimeter of the pit if necessary.
- 14. The volume of the pit shall not exceed 10 acre-feet, including freeboard.
- 15. If needed, temporary blow pits will be constructed to allow gravity flow to discharge into the lined drill pit.
- 16. If a blow pit is used, the lower half of the blow pit (nearest lined pit) will be lined with the same 20 mil liner. The upper half of the blow pit will remain unlined as allowed in Rule 19.15.17.11.F.11.
- 17. Breitburn will not allow freestanding liquids to remain on the unlined portion of temporary blow pit.
- 18. A berm, ditch, proper sloping, or other diversion will be constructed around the pit to prevent runon of surface water.

## Breitburn Operating LP Temporary Pit Maintenance and Operating Plan

In accordance with rule 19.15.17 the following information describes the operation and maintenance of temporary pits on Breitburn LP (Breitburn) locations. This is the standard Breitburn procedure for all temporary pits. A separate plan will be submitted for any temporary pit that does not conform to this plan.

### **General Plan**

- 1. Breitburn will operate and maintain a temporary pit to contain liquids and solids, prevent contamination of fresh water, and protect public health and the environment
- 2. Breitburn will recycle, reuse, reclaim or dispose of all drilling fluids in a properly licensed disposal facility in a manner approved by division rules, and that prevents contamination of fresh water and protects public health and the environment.
- 3. Breitburn will not discharge or store any hazardous waste in any temporary pit.
- 4. If any pit liner's integrity is compromised or if any penetration of the liner occurs above the liquid's surface, Breitburn shall notify the appropriate division district office by phone or email within 48 hours of the discovery and repair the damage or replace the liner.
- 5. If a leak develops below the liquid's level, Breiturn shall remove all liquids above the damaged liner within 48 hours and repair the damage or replace the liner. Breitburn shall notify the appropriate division distric office within 48 hours of the discovery pursuant to 19.15.29 NMAC.
- 6. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or manifold system.
- 7. The pit shall be protected from run-on by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some cases.
- 8. Breitburn shall immediately remove any visible layer of oil from the surface of the temporary pit after cessation of drilling or workover operation. Oil absorbent booms will be utilized to contain and remove oil from the pit's surface. An oil absorbent boom will be stored on-site until closure of pit.
- Only fluids generated during the drilling or workover process may be discharged into a temporary pit.
- 10. Breitburn will maintain the temporary pit free of miscellaneous solid waste or debris.
- 11. During drilling or workover operations, Breitburn will inspect the temporary pit at least once daily to ensure compliance with this plan. Inspections will be logged in the IADC reports. Breitburn will file this log with the appropriate division district office upon closure of the pit.
- 12. After drilling or workover operations, Breitburn will inspect the temporary pit weekly so long as liquids remain in the temporary pit. A log of the inspections will be stored at Breitburn's office electronically and will be filed with the appropriate division district office upon closure of the pit.
- 13. Breitburn shall maintain minimum of two feet of freeboard for a temporary pit.
- 14. Breitburn shall remove all free liquids from a temporary pit within 60 days from the date the operator releases the drilling or workover rig.
- 15. Any liquids used for cavitation will be removed from the pit within 48 hours after completing cavitation. If it is not feasible to access the location within 48 hours, this will be demonstrated to the district office's satisfaction and additional time will be requested.

### Breitburn Operating LP Temporary Pit Closure Plan

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure requirements of temporary pits on Breitburn LP (Breitburn) locations. This is the Breitburn standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit that does not conform to this plan.

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

- · Detail 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

- 1. All free standing liquids will be removed from the pit with a vacuum truck at the start of the pit closure process. Liquids will be disposed of in a division approved facility or Breitburn will recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves.
- 2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all criteria in sub-section (D) of 19.15.17.13 are met.
- 3. Breitburn will notify the surface owner by certified mail, return receipt requested, unless surface owner is a public land entity (BLM/Tribal), then an email notification of plans to close the temporary pit will be sent at least 72 hours, but no more than I week prior to any closure operation. The notice will include the well name, API number and location.
- 4. Within 6 months of the Rig Off status occurring, Brietburn will ensure that temporary pits are closed, re-contoured and reseeded.
- 5. Notice of Closure will be given to the Santa Fe Division office between 72 hours and one week of closure via email, or verbally. The Notification of Closure will include the following:
  - i. Operator's name
  - ii. Well name nd API Number
  - iii. Location by Unit Letter, Section, Township and Range.
- 6. 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 safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.
- 7. A five point composite sample will be taken of the pit contents using sampling tools, and all samples tested per 19.15.17.13 (D)(5). In the event that the criteria are not met, all contents will be handled per 19.15.17.13 (D)(7) i.e. Dig and Haul. Sample will be tested for the constituents listed below in Table II of 19.15.17.13 NMAC.

Table II Closure Criteria for Burial Trenches and Waste Left in Place in Temporary Pits							
				Depth below bottom of pit to groundwater less than 10.000 mg/l TDS	Constituent	Method*	Limit***
					Chloride	EPA Method 300.0	20,000 mg/kg
25-50 feet	TPH	EPA SW-846 Method 418.1	100 mg/kg				
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg				
	Benzene	EPA SW-846 Method 8021B	10 mg/kg				

- 8. Upon completion of solidification and testing, and contents are below concentrations listed in TABLE II, Breitburn will fold outer edges of the trench liner to overlap the waste material in the pit area, then install a geomembrane cover over the waste material in the pit to prevent collections of infiltration water after the soil cover is in place: geomembrane being a 20-mil, string reinforced, LLDPE liner, or equivalent, complying with EPA SW-846 method 9090A requirements and having impervious resistance to ultra violet light, hydrocarbons, salts and alkaline.

  9. Pit area will be backfilled with compacted, non-waste containing earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0. 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.
- 10. Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. 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 placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting natural landscape.
- 11. Notification will be sent to OCD when the reclaimed area is seeded.
- 12. Breitburn will seed the disturbed areas the first favorable 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 mix will be used on federal lands. Vegetative cover will be established to reflect a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and will equal seventy percent (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. (On Federal/Tribal/Forest lands we will comply with required stipulations).
- 13. 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 a four foot tall riser with the operator's information at the time 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 indicator that the marker is an onsite burial location.
- 14. If the well goes into production, an alternate interim marking system will be used to allow for safer and more efficient operations. A minimum 4" O.D. steel pipe will be set at least 36" deep at the center of the pit. A threaded collar will be on the top of the pipe. A minimum 22" x 12" steel plate will be welded atop the threaded collar. Top of the plate will be flush with ground level. The steel plate will contain the Operator Name, Lease Name, Well Number, and location information including unit letter, section, township and range, and that the marker designates an onsite burial location. This information will be welded, stamped or otherwise permanently engraved into the metal of the plate. Upon the abandonment of all the wells on the pad, the plate will be removed and replaced with a four foot tall riser containing the same information as described for the steel plate pursuant to 19.15.17.13.H.5D.



August 23, 2015

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

To:

LIBBY CATTLE Co. 400 Libby Road Bueyeros, NM 88415

Subject: Breitburn Operating LP Libby Minerals LLC Com No. 2-2-N API No. 30-021-20688 UL N, Section 2, T19N, R31E, NMPM Harding County, New Mexico

### Dear Ladies and Gentlemen:

The purpose of this letter is to inform you that a lined reserve pit will be used during the drilling process for the above mentioned well. Upon completion of drilling, liquids will be removed and remaining solids will be tested, buried in place, covered with soil and re-contoured as per New Mexico environmental rules and regulations.

No action to this notice is required on your part.

If you should have any questions, please contact undersigned at (505) 320-5682

Sincerely,

Shelly Doescher

Agent

**Breitburn Operating LP** 

