STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

APPLICATION OF AWR DISPOSAL, LLC TO APPROVE SALT WATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO.

CASE	NO.	•	

APPLICATION

AWR Disposal, LLC ("AWR"), OGRID No. 328805, through its undersigned attorneys, hereby makes this application to the Oil Conservation Division pursuant to the provisions of N.M. Stat. Ann. § 70-2-12, for an order approving drilling of a salt water disposal well in Lea County, New Mexico. In support of this application, AWR states as follows:

- (1) AWR proposes to drill the Muledome SWD #1 well at a surface location 1389 feet from the North line and 356 feet from the West line of Section 30, Township 22 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well.
- (2) AWR seeks authority to inject salt water into the Devonian-Silurian formation at a depth of 16,083' -17,701'.
- (3) AWR intends to use 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day.
- (4) AWR anticipates using an average pressure of 2,400 psi for this well, and it requests that a maximum pressure of 3,216 psi be approved for the well.
 - (5) A proposed C-108 for the subject well is attached hereto in Attachment A.

(6) The granting of this application will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

WHEREFORE, AWR requests that this application be set for hearing before an Examiner of the Oil Conservation Division on February 6, 2020; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.

Deana Bennett

Post Office Box 2168

500 Fourth Street NW, Suite 1000

Albuquerque, New Mexico 87103-2168

Telephone: 505.848.1800 Attorneys for Applicant

case No. _____: Application of AWR Disposal, LLC for approval of salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving the Muledome SWD #1 well at a surface location 1389 feet from the North line and 356 feet from the West line of Section 30, Township 22 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well. Applicant requests authorization to inject salt water into the into the Devonian-Silurian formation at a depth of 16,083'-17,701'. Applicant requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said location is approximately 27.3 miles west of Eunice, New Mexico.

					Revised March 23, 2017
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	ADMINISTR	ATIVE APPLIC	CATION	CHECKLIST	
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Applicant: AWR DIS				OGRID	Number: 328805
Vell Name: MULEE				API: TBD	
ool: SWD; DEVONIAN	SILURIAN			Pool Co	de: 97869
1) TYPE OF APPLIC	CATION: Check those v	INDICATED which apply for	BELOW or [A]	O PROCESS THI	ETYPE OF APPLICATION
A. Location	– Spacing Unit – Simult ISL NSP _{(PRI}		cation NSP _{(PROR.}	ATION UNIT)	
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	e submitted to the Div e: Statement must be complet		ıl with mana	perial and/or superv	isory capacity.
				, 51141 4114, 61 55 611	soly capacity.
CHRIS WEYAND			De	12 3 231° ate	
Print or Type Name					
W. No	\int		P	12-600-1764 hone Number CHRIS@LONQUIST.	СОМ
Signature	tabbles*	EXHIBIT	e e	-mail Address	

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505 FORM C-108 Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage Application qualifies for administrative approval? X Yes No
II.	OPERATOR: AWR DISPOSAL, LLC
	ADDRESS: 3300 N. A Street, Ste 220, Midland, Texas 79705
	CONTACT PARTY: Chris Weyand (Agent) PHONE: 512-600-1764
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project? Yes X No If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
VII.	Attach data on the proposed operation, including:
	 Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; Proposed average and maximum injection pressure; Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
*VIII.	Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted)
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	NAME: Christopher B. Wevand TITLE: Consulting Engineer
	SIGNATURE: DATE: 12 3 (2019)
*	E-MAIL ADDRESS: chris@lonquist.com If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

Side 2

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.
 - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: AWR DISPOSAL, LLC

Side 1

WELL NAME & NUMBER: MULEDOME SWD #1

RANGE 33E TOWNSHIP SECTION UNIT LETTER 1389' FNL & 356' FWL FOOTAGE LOCATION WELL LOCATION:

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA Surface Casing

Hole Size: 24.000"

Casing Size: 20.000"

ff.3

Cemented with: 1336 sx.

Top of Cement: Surface

or

Method Determined: Circulation

1st Intermediate Casing

Hole Size: 17.500"

Casing Size: 13.375"

Cemented with: 4,026 sx.

00

Method Determined: Circulation

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Top of Cement: Surface

2st Intermediate Casing

Hole Size: 12.250"

Casing Size: 9.625"

Cemented with: 3,433 sx.

0

Method Determined: Circulation

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Top of Cement: Surface

ff.3

Production Liner

Hole Size: <u>8.500"</u>

Cemented with: 202 sx.

Top of Cement: 11,750'

Total Depth: 17,701?

Casing Size: 7.625."

Method Determined: Logged

Injection Interval

16,083 feet to 17,701 feet (Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 7", 26 lb/ft, P-110, TCPC from 0'-11,650' and 5.500'', 17 lb/ft, P-110 TCPC from 11,650' - 15,983' Lining Material: Duoline

Type of Packer: 7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel 925 trim

Packer Setting Depth: 15,9837

Other Type of Tubing/Casing Seal (if applicable):

Additional Data

Yes Is this a new well drilled for injection?

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If no, for what purpose was the well originally drilled? N/A

- Name of the Injection Formation: Devonian, Silurian, Fusselman and Montoya (Top 100') તાં
- Name of Field or Pool (if applicable): SWD; Devonian-Silurian ત્યું
- intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No, new drill. Has the well ever been perforated in any other zone(s)? List all such perforated 4.
- Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Ś.

Delaware: 4,959'

Bone Spring: 8,764'

Wolfcamp: 12,182'

Strawn: 13,6877

Atoka: 13.850°

Morrow: 14,3333

AWR Disposal, LLC

Muledome SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information									
Lease Name	Muledome SWD								
Well No.	1								
Location	S-30 T-22S R-33E								
Footage Location	1389' FNL & 356' FWL								

2.

a. Wellbore Description

Casing Information										
Туре	Surface	Intermediate 1	Intermediate 2	Production Liner						
OD	20"	13.375"	9.625"	7.625"						
WT	0.500"	0.455"	0.545"	0.500"						
ID	19.000"	12.415"	8.535"	6.625"						
Drift ID	18.812"	12.259"	8.535"	6.500"						
COD	21.00"	14.375"	10.625"	7.625"						
Weight	106.5 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft						
Grade	J-55	HCL-80	P-110	HCP-110						
Hole Size	24"	17.5"	12.25"	8.5"						
Depth Set	1,250'	5,100′	12,250'	11,750' – 16,083'						

b. Cementing Program

Cement Information										
Casing String	Surface	Intermediate 1	Intermediate 2	Liner						
Cement Type	Lead: Extendacem Tail: Halcem	Halcem	Halcem	Neocem						
Cement Volume	Lead: 714 sx Tail: 622 sx	4,026 sx	Stage 1: 1,441 sx Stage 2: 933 sx Stage 3: 1,059 sx	202						
Cement Excess	75%	100%	50%	50%						
тос	Surface	Surface	Surface	11,750'						
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged						

3. Tubing Description

Tubing Information									
OD	7"	5.5"							
WT	0.362"	0.304"							
ID	6.276"	4.892"							
Drift ID	7.875"	6.050"							
COD	6.151"	4.653"							
Weight	26 lb/ft	17 lb/ft							
Grade	P-110 TCPC	P-110 TCPC							
Depth Set	0'-11,650'	11,650' -15,983'							

Tubing will be lined with Duoline.

4. Packer Description

7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel 925 trim

B. Completion Information

1. Injection Formation: Devonian, Silurian, Fusselman, Montoya (Top 100')

2. Gross Injection Interval: 16,083' - 17,701'

Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Delaware	4,959'
Bone Spring	8,764'
Wolfcamp	12,182'
Strawn	13,687'
Atoka	13,850'
Morrow	14,333'

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

Average Volume: 40,000 BPD Maximum Volume: 50,000 BPD

- 2. Closed System
- 3. Anticipated Injection Pressure:

Average Injection Pressure: 2,400 PSI (surface pressure)
Maximum Injection Pressure: 3,216 PSI (surface pressure)

- 4. The injection fluid is to be locally produced water. It is expected that the source water will predominantly be from the Bone Spring and Wolfcamp formations. Attached are produced water sample analyses taken from the closest wells that feature samples from the Delaware, Bone Spring, Wolfcamp, Strawn, Atoka, and Morrow formations.
- 5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and the Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia) features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a tremendous Salt Water Disposal horizon.

A. Injection Zone: Siluro-Devonian Formation

Formation	Depth
Rustler Anhydrite	1,101′
Castile	3,404'
Lamar	4,910'
Delaware	4,959'
Bone Spring	8,764'
Wolfcamp	12,182'
Strawn	13,687′
Atoka	13,850′
Morrow	14,333'
Mississippian	15,543'
Woodford	15,774'
Devonian	16,033'
Fusselman	17,033'
Montoya	17,601'

B. Underground Sources of Drinking Water

No water wells exist within one mile of the proposed well location. Water wells in the surrounding area have an average total depth of 320 ft and an average depth to water of 184 ft generally producing from the Santa Rosa. The upper Rustler may also be another USDW and will be protected.

IX. Proposed Stimulation Program

Stimulate with up to 50,000 gallons of acid.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

No water wells exist within one mile of the proposed well location.

XII. Affirmative Statement of Examination of Geologic and Engineering Data

Based on the available engineering and geologic data we find no evidence of open faults or any other hydrologic connection between the disposal zone (in the proposed <u>Muledome SWD #1</u>) and any underground sources of drinking water.

NAME: Herb Wacker

TITLE: Geologist

SIGNATURE: Sechert / Worker TBPG# 4517

DATE: Nov. 1,2019

Directions to Site - From Jal, NM - Travel 35.2 miles West on	Nivi-128. Tufn right (Njohto Red Koad Koad and travel 22 miles to location. at/l one: 32 3662781/-103 6184143	Section (UCLD)	Lead: 714 sx 13.7 ppg EXTENDACEM, 1.694 ft3/sk (800') 75% excess Tail: 622x 14.8 ppg HALCEM, 1.342 ft3/sk (200') 75% excess Cement to Surface	4026sx of 13.7ppg Halcem (100% XS in OH) with 5% Miccobond. Cement to surface P110 26# TCPC	Stage 3: 1059 sx 13.7 ppg HalCem™ C	1000psi CSD after 10 hrs P110 17# TCPC	Stage 2: Duoline	 U	rface	Stage 1: 1441 sx 15.6 ppg HalCem"	50% XS 1000psi CSD after 10 hrs Cement to Surface	2075es of 13.2 nns	NeoCem™ PT2	7-5/	1000nsi CSD after 10hrs Permanent		Elastomer and		brine if necessary)	
Directions to Site - From Ja	NW'-128. Furn right (N)onto Red Roa to location. at/l one: 32 3662781/-103 6184143	l'ordina (com	Lead: 7 EXTENDA (800' No Logs Tail: 622sx 1.342 ft3/s/ Ceme	Mudlogger 4026sx of on site by (100% X) Miccobond	1059 sx 13	1000psi	MWD GR	_	3/8" Casing Ceme	1441 sx 1	1000psi Ceme		MWD GR Nec	combo, CBL Si				MWD GR	9	with FMI,
17,701	3738' / 3768'	Casing	1250' of 20" 106.5# 155 BTC Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket 5th jt from surface	SM A Section Casing Bowl 5100' of 13-3/8" 68# HCL80 BTC. Externally coated 1100 - 5100' Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	10M B Section	12250' of 9-5/8" 53.5# P110 BTC Special Drift to 8.535"	Externally Coat Between DV Tools		ECP DV Tool at 5150'	Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint	in open hole and 5 within the surface casing	4333' of 7-5/8" 39#	HCP110 USS Flush Versaflex Packer Hanger		Centralizers on and 1 jt above	shoe jt and then every 2nd jt.			Openhole completion	
10	GL/KB	Muse	Spud Mud MW< 9.0	Brine Water <11ppg			WBM with	Produced FW until Loss of	circulation				12.5 ppg OBM	UBD/MPD using	ADA (HOLD)			Cut brine - low	grav for possible flows	
722S R33E	NM	Bit/8HA	24" Tricone 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface	17-1/2" PDC 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface			12-1/4" PDC 8" MM	9jts: 8" DC 8" Drilling Jars	21 jts: 5" HWDP 5" DP to Surface				8-1/2" PDC 6-3/4" MM	9 jts: 6" DC 21 jts: 5" HWDP	5" DP to Surface			6-1/2" PDC 4-3/4"MM	4-3/4" Drilling Jars 18 jts: 4" FH HWDP	A" CU DD to Cuefaco
Location - Sec 30 T22S R33E	Lea County NM	Problems	Loss Circulation Hole Cleaning Wellbore stability in the Red Beds Anhydrite in the Rustler	Seepage Losses Possible H2S Anhydrite Salt Sections	Hard Drilling in the Brushy Canyon	Seepage to Complete Loss	Water Flows	some Annyarite H2S possible	Production in the Bone Spring	and workanip Rellocating is possible in Cherno	Canyon and Brushy if Broken Down	High Pressure (up to 15ppg) and wellbore instability (fracturing) expected in the	Wolfcamp	Production in the Wolfcamp	Atoka and Morrow	Hard Drilling in the Morrow Clastic	Chert is possible	Loss of Circulation is expected	H2S encountered on the Striker 3 well	
e SWD #1	Vertical Injection - Devonian, Silurian, Kusselman	Section	Surface Drill 24" 0' - 1250' Set and Cement 20" Casing	1st Intermediate Drill 3850' of 17-1/2" Hole 1250' - 5100' Set and Cement 13-3/8" Casing		2nd Intermediate	Drill 7150' of 12-1/4" Hole	5100' - 12250' Set 9-5/8"	Casing in 3	Stages		3rd Intermediate	Drill 3833' of 8-1/7" Hole	12250' - 16083'	Set 7-5/8" Liner and Cement in Single Stage				Drill 1618' of 6-1/2" hole 16083' - 17701'	
Muledome SWD #1	al Injection - Devor					na S											**************************************	10000000000000000000000000000000000000	MRE SAME AND	nett
WAR DISPOSALILC	Vertic	Geologic Tops (MD ft)	Rustler Anhydrite - 1101 Surface TD - 1250	Top Salt - 3404 Base Salt (Lamar top) - 4910 1st Int TD - 5100	9-5/8" ECP DV Tool - 5150	Bell Canyon - 4959	Cheffy Canyon - 3612 Brushy Canyon - 7182	DV Tool - 8500	Bone Spring - 8764	3rd Int Liner Top - 11,750	Wolfcamp - 12182 2nd Int TD - 12,250	Strawn - 13687	Morrow - 14333	Miss Lst - 15543	Woodford - 15774	Perm Packer - 15,983 3rd Int TD - 16,083	Devonian - 16,033		Fusselman - 17033	Montova - 17,601

District 1
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 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

		V	ELL LO	DCATIO	N AND ACR	EAGE DEDIC	ATION PLA	T			
	API Number	r	T	² Pool Code			³ Ponl Na	me			
				97869			SWD; DEVONIA	N-SILURIAN			
*Property C	ode				*Property N	ame			Well Number		
	MULEDOME SWD 1										
OGRID N	io.				"Operator N	ame			⁹ Elevation		
32880)5			AWR DISPOSAL, LLC 3737'							
					10 Surface Lo	eation					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West	ine County		
E	30	22-S	33-E	-	1389'	NORTH	356'	WEST	LEA		
11Bottom Hole Location If Different From Surface											
						Feet from the	East/West	line County			
Dedicated Acres Dedicated Acre											

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.

Y=499107.61	X=704100.30 Y=499120.59	X=7 000 4.72 Y=499134.77	
356.	(1)1111(11111(9 1111111)		17 OPERATOR CERTIFICATION I hereby certify that the trigornation conducted herein is true and complete to the best of my incubelege and belief, and that this enganization either couns a working interest or unleased interest interest to the land including the proposed bottom hole location, er has a right to drill his well at this focation pursuant to a contract with an owner of such a mineral er working interest, or to a voluntary pooling agreement or a computatory pooling order herelofore entered by the division.
SURFACE LOCAT. NEW MEXICO EA NAD 1983 X=762001 Y=497721 LAT.: N 32.36627. LONG.: W 103.6186	ST	X=766823.97 Y=496494.21	Signature Date Date Chris Weyand Printed Name Chris@lonquist.com E-mail Address
			18SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief. 04/16/2019
			Date of Survey Signature and Seal of Professional Surveyor
X=761673.25 Y=493826.81	Control of the Contro	X=766844.19 Y=493955.10 SASURVEYLONQUIST & CO LLCULMESTONEFINAL PRODU	Cortificate Number

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101 Revised July 18, 2013

☐ AMENDED REPORT

Energy Minerals and Natural Resources

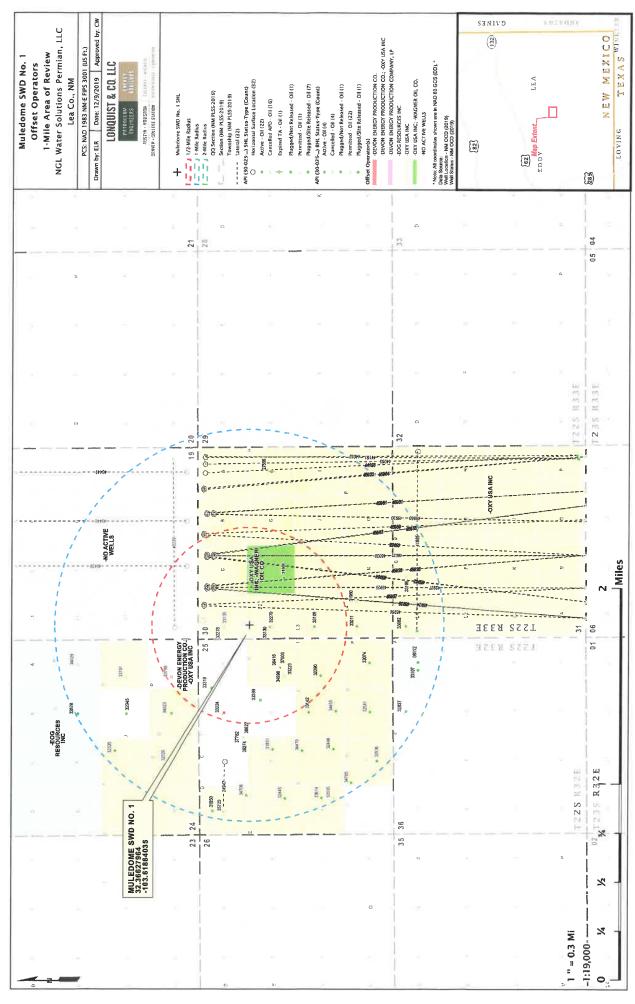
Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

APPLICATION FOR PERMIT	OT '	DDII I	DE-ENTED	DEEDEN	DILICRACK	OD ADD	A ZONE
ATTEICATION FOR LEMMIT	10	DIXILL,	TAREARIN T TOTAL		, I LUGDACK,	OK ADD	A LUNE

			Operator Name a	OSAL, LLC				OGRID Num 328805	
			3300 N. A St Midland, Te					TBD	.1
* Proper	ty Code			Property N Muledome S	ame WD			(C)	Vell No.
				7. Surface Loca	ation				
UL - Lot	Section	Township	Range	Lot Idn Feet fro	om N/	S Line	Feet From	E/W Line	County
Е	30	228	33E	N/A 1389	, N	ORTH	356'	WEST	LEA
			, , , ,	* Proposed Bottom	Hole Locat	ion			
Ul Lot	Section	Township -	Range	Lot Idn Feet fro	om N/	S Line	Feet From	E/W Line	County
				% Pool Inform:	ation				
				Pool Name					Pool Code
				SWD; DEVONIAN-SILURI	AN				97869
				Additional Well Inf					
^{11.} Work N			12. Well Type SWD	13. Cable/Ro R	otary	14	Lease Type Private	15 Gr	ound Level Elevation 3.737'
^{16.} Mul N			17 Proposed Depth 17,701	^{18.} Format Devonian-S		15	Contractor TBD		20. Spud Date ASAP
Depth to	Ground wa 148'	ter		Distance from nearest fresh > 1 mile	water well		D	istance to nearest su > I mile	rface water
we will be u	sing a clo	sed-loop s	ystem in lieu of li ^{21.} P	ned pits roposed Casing and C	ement Pro	gram			
Type		sed-loop s		•		gram g Depth	Sacks of	Cement	Estimated TOO
	Hole		21. P	roposed Casing and C	Setting	No.	Sacks of		Estimated TOO Surface
Турс	Hole 24	Size	^{21.} P	roposed Casing and C	Setting	g Depth		36	
Type Surface	Hole	Size	21. P Casing Size 20"	Casing Weight/ft	Setting 1,2 5,1	g Depth	1,33	36 26	
Type Surface Intennediate I	Hole 2-	: Size 4"	21. P Casing Size 20" 13.375" 9.625" 7.625"	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft	Setting 1,2 5,1 12,2 11,750'	g Depth 150° 00° 250° - 16,083°	1,33 4,02	36 26 33	Surface Surface
Type Surface Intennediate I Intennediate 2 Prod. Liner	Hole 2-17 12. 8.	Size 4" 2.5"	21. P Casing Size 20" 13.375" 9.625" 7.625"	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft	Setting 1,2 5,1 12,2 11,750'	g Depth 150° 00° 250° - 16,083°	1,33 4,02 3,43	36 26 33	Surface Surface Surface
Type Surface Intennediate I Intennediate 2 Prod. Liner	Hole 2-17 12. 8.	Size 4" 2.5"	21. P Casing Size 20" 13.375" 9.625" 7.625"	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft	Setting 1,2 5,1 12,2 11,750'	g Depth 150° 00° 250° - 16,083°	1,33 4,02 3,43	36 26 33	Surface Surface Surface
Type Surface Intennediate I Intennediate 2	Hole 2-17 12. 8.	Size 4" 2.5"	21. p. Casing Size 20" 13.375" 9.625" 7.625" Casing	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft	Setting 1,2 5,1 12,2 11,750' Iditional Co	g Depth 150' 00' 250' - 16,083' 250'	1,33 4,02 3,43	36 26 33	Surface Surface Surface
Type Surface Intennediate I Intennediate 2 Prod. Liner	Hole 2-17 12. 8.	Size 4" 2.5"	21. P Casing Size 20" 13.375" 9.625" 7.625" Casing	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft (Cement Program: Ad	Setting 1,2 5,1 12,2 11,750' Iditional Co	g Depth 150' 00' 250' - 16,083' 250'	1,32 4,02 3,43 203	36 26 33 2 2	Surface Surface Surface
Type Surface Intennediate I Intennediate 2 Prod. Liner See attached scheme	Hole 2: 17 12. 8.	e Size 4"5"5"55"55"	21. P Casing Size 20" 13.375" 9.625" 7.625" Casing	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft Cement Program: Ad	Setting 1,2 5,1 12,2 11,750' Iditional Co	g Depth 150' 100' 150' 16,083' 16,083' 17 omments	1,33 4,02 3,43 203	86 86 826 833 82 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Surface Surface Surface 11,750
Type Surface Intermediate I Intermediate 2 Prod. Liner See attached scher	Hole 2 17 12. 8. matic. Type [ydrualic/Bli	e Size 4" 2.5" 25" 5" ands, Pipe	21. P Casing Size 20" 13.375" 9.625" 7.625" Casing	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft Cement Program: Ad roposed Blowout Prev Vorking Pressure 10,000 psi	Setting 1,2 5,1 12,2 11,750' Iditional Co	g Depth 150' 100' 16,083' 16,083' 17 omments 17 omments	1,33 4,02 3,43 203	86 86 826 833 82 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Surface Surface Surface 11,750
Type Surface Intermediate I Intermediate 2 Prod. Liner See attached schell Double H	Hole 2. 17 12. 8. matic. Type lydrualic/Bli	e Size 4" .5" 25" 5" inds, Pipe	21. P Casing Size 20" 13.375" 9.625" 7.625" Casing	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft //Cement Program: Ad roposed Blowout Prev Vorking Pressure 10,000 psi	Setting 1,2 5,1 12,2 11,750' Iditional Co	g Depth .50' .50' .00' .250' -16,083'	1,33 4,02 3,43 203	M TBD -	Surface Surface Surface 11,750'
Type Surface Intermediate I Intermediate 2 Prod. Liner Gee attached schel Double H	Hole 2. 17 12. 8. matic. Type lydrualic/Bli fy that the ge and belify that I h	e Size 4" .5" 25" 5" inds, Pipe	21. P. Casing Size 20" 13.375" 9.625" 7.625" Casing	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft Cement Program: Ad roposed Blowout Prev Vorking Pressure 10,000 psi	Setting 1,2 5,1 12,2 11,750' Iditional Co	g Depth 150' 00' 250' - 16,083' mments gram Test Press 8,000 psi	1,33 4,02 3,43 200	M TBD -	Surface Surface Surface 11,750'
Type Surface Intermediate I Intermediate 2 Prod. Liner ee attached scher Double H I hereby cert f my knowled further certif 9.15.14.9 (B) ignature:	Hole 2. 17 12. 8. matic. Type llydrualic Bli ify that the ge and beli fy that I h NMAC	e Size 4" 25" 5" nds, Pipe e information ief. ave complicated	21. P Casing Size 20" 13.375" 9.625" 7.625" Casing 22 P V 13.375" 22 P V 14.9 blc.	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft //Cement Program: Ad roposed Blowout Prev Vorking Pressure 10,000 psi	Setting 1,2 5,1 12,2 11,750' Iditional Co	g Depth 150' 00' 250' - 16,083' mments gram Test Press 8,000 psi	1,33 4,02 3,43 200	M TBD -	Surface Surface Surface 11,750'
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Type Surface Intermediate I Intermediate 2 Prod. Liner Double H 1 I hereby cert of my knowled, further certi further certi 9.15.14.9 (B) fignature:	Hole 2 17 12. 8. matic. Type lydrualic Bli ify that the ge and beli fy that I h NMAC hristopher ge Enginee	e Size 4" 25" 5" inds, Pipe information ief. ave complicate ave complicate r B. Wayand	21. P Casing Size 20" 13.375" 9.625" 7.625" Casing 22 P V 13.375" 22 P V 14.9 blc.	Casing Weight/ft 106.5 lb/ft 68 lb/ft 53.5 lb/ft 39 lb/ft //Cement Program: Ad roposed Blowout Prev Vorking Pressure 10,000 psi	Setting 1,2 5,1 12,2 11,750 Iditional Co	g Depth 50' 00' 250' - 16,083' mments Test Press 8,000 psi OIL (1,32 4,02 3,43 200	M TBD-	Surface Surface Surface 11,750'



Muledome SWD No. 1 1-Mile Area of Review List

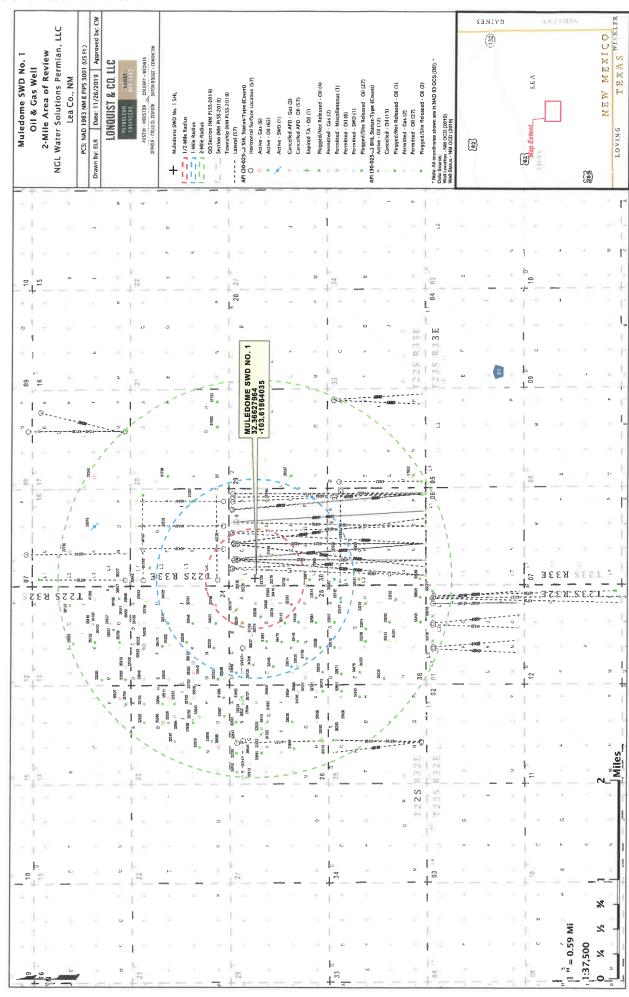
P PRE-GAMES NOTE LIBORAL ROSS D P P CONTINUENT CONTINUENT ATERIALA ROSS D P P CONTINUENT CONTINUENT ATERIALA ROSS D P CONTINUENT	API (30-025)	WEILNAME	WELL TYPE	CTATIIC	ODEDATOD	This let 1	(ad cody) adjustity		4	
10. (0.0000000, statistude control 0	08112	PRE-DNGARD WELL #001	0	۵	PRE-ONGARD WELL OPERATOR	2068	32.35369490		1/1/1900	FIELD
NET ON BETTON REPORT DE LA CONTRINEMENTO D	24947	COVINGTON A FEDERAL #001	a	۵	OXY USA INC	15550	32,36818310	-103,63053890	2/7/1975	[51683] RED TANK RONE SPRING: (51689) RED TANK DEI AWARDE AWEST
CONTRONOM MARINER WASHINGTON 0 A A CONTRONOM MARINER WASHINGTON 1 A DECEMBRATION CONTROL 1	27596	RED TANK 30 STATE #003	0	ш	OXY USAING	5312	32.36458590	-103,60523220	10/24/1981	(6930) BOOTLES RIDGE, DELAWARE
CONTROLIN CURRINAL WORKERS 0 A CONTROLIN CURRINAL WORKERS 0 CONTROLIN CURRINAL WORKERS CONTROLIN CURRINAL WORKERS 0 CONTROLIN CURRINAL WORKERS CONTROLIN C	31850	COVINGTON A FEDERAL #002	0	А	OXY USA INC	10120	32.36907580	-103,63481900	11/18/1993	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
Control Michael Brain March (1971) 6 0 7 Control Michael March (1971)	31851	COVINGTON A FEDERAL #006	0	٨	OXY USAINC	10104	32.36455920	-103.62946320	8/4/1995	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
CONTINUOU M LEGIONA (CONTINUO M LEGIONA CONTINUO M LEGIONA (CONTINUO M LEGIONA CONTINUO	31959	BIGHORN 30 STATE #002	0	٧	WAGNER OIL CO.	10491	32.36368560	-103.61450200	12/31/9999	[51687] RED TANK, BONE SPRING, EAST
CONDICIONE DE CONTROLINO DE CONTRO	31960	BIGHORN 30 STATE MOD3	0	U	DEVON ENERGY OPERATING COMPANY LP	6666	32.35826079	-103.61659005	12/31/9999	
	32035	COVINGTON A FEDERAL #007L	0	Ü	POGO PRODUCING CO	6666	32,3599950	-103.63372053	12/31/9999	
Particular Service	32036	CDVINGTON A FEDERAL #009	0	٩	OXY USA INC	10100	32,35679630	-103.63052370	9/28/1993	(51689) RED TANK, DELAWARE, WEST; [96249] RED TANK, DELAWARE, SO
COMMENDE ATTEMACEMENT C C C C C C C C C	32278	BIGHORN 3D STATE #005	0	J	DEVON ENERGY OPERATING COMPANY LP	66666	32.36822218	-103.61878032	12/31/9999	Macushin
MATERIAL MONTON TREEDAL MONTON A CONTONATION MATERIAL MONTON A CONTONATION MATERIAL MONTON CONTONATION MATERIAL MONTON MATERIAL M	32279	BIGHORN 30 STATE #004	0	υ	DEVON ENERGY OPERATING COMPANY LP	66666	32,36459374	-103.61877435	12/31/9999	
MATERIAL MATERIA	32290	COVINGTON A FEDERAL #004	0	A	DXY USA INC	9010	32,36095050	-103.62304690	1/12/1996	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
Common at treatment and common at the comm	32320	RED TANK 24 FEDERAL #002	0	٨	OXY USA INC	10166	32,37635420	-103.62948610	8/24/1995	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
COMMENDA RECORMENDA 0 A OND UND LANK 680 13.865800 106.517100 34/1999 COMMENDA RECORMENDA 0 A OVER COMMENDA 680 13.2658200 -101.5258200 4/1999 COMMENDA RECORMENDA 0 A OVER COMMENDA 680 13.2658200 -101.5258200 4/1999 MACACHES A FERCINAL MOST 0 A DECOMENDA RECORMENDA 600 A 13.2658200 -101.5258200 13.075830 MACACHES A FERCINAL MOST 0 A DECOMENDA RECORMENDA 600 13.2658200 -101.5258200 13.075830 MACACHES A FERCINAL MOST 0 A DECOMENDA RECORMENDA 600 13.2568200 -101.525820 13.075830 MACHES A FERCINAL MOST 0 A DECOMENDA RECORMENDA 600 13.2568200 -101.571990 13.075990 MACHES A FERCINAL MOST 0 A DECOMENDA RECORMENDA 600 13.2568200 -101.571990 13.075990 MACHES A FERCINAL MOST 0 A DECOMENDA RECORMENDA <td< td=""><td>32326</td><td>RED TANK 24 FEDERAL #001</td><td>0</td><td>۷</td><td>OXY USA INC</td><td>10160</td><td>32.37236400</td><td>-103,63054660</td><td>12/3/1994</td><td>[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST</td></td<>	32326	RED TANK 24 FEDERAL #001	0	۷	OXY USA INC	10160	32.37236400	-103,63054660	12/3/1994	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
Convertion At Digital Month Conv	32445	COVINGTON A FEDERAL #003	0	٧	OXY USA INC	8950	32,36363600	-103.63374330	3/4/1998	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
Concision Attitude Minior	32446	COVINGTON A FEDERAL #005	0	٧	OXY USA INC	8900	32.36001970	-103,62946320	4/9/1996	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
MALLE REEN SETANT BOOK P. CLOS RECONCICTION NOT NOT NOT NEED C. CLOS RECONCICTION NOT NOT NEED C. CLOS RECONCICTION NOT NOT NEED C. CLOS RECONCICTION NOT NEED C. CLOS RECONCICTIO	32581	COVINGTON A FEDERAL #010	0	<	OXY USA INC	8990	32.35730740	-103.62625120	5/19/1995	[51583] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
CONNECTORE 3 MECRALDRE AND CONTROL MENTOR FOR THE CONTROL MENTOR	32837	MULE DEER 36 STATE #001	0	۵	EOG RESOURCES INC	9018	32.35458760	-103.62624360	4/7/1995	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
CHICATRES AT FERBALA MOND A DEPON CHANNEN, P \$50.5 \$12,2564,200 \$10,35,876,800 \$71,519,595 \$71,519	32878	JACKALOPE 24 FEDERAL MO01	0	۵	EOG RESOURCES INC	9014	32.37909320	-103.62628940	11/30/1996	[51683] RED TANK, BONE SPRING: [51689] RED TANK, DELAWARE, WEST
METATION AND STATE BOATH BOATH AND TOWN USA MICHOLAN	32945	CHECKERS 24 FEDERAL #001	0	٧	DEVON ENERGY PRODUCTION COMPANY, LP	9025	32.37545780	-103.62628170	8/20/1997	(S1683) RED TANK RONF SPRING
MAILE DERINGTON A FEDERAL MAILT C A CONTUBA NIC State Stat	33011	RED TANK 30 STATE #001	0	٧	OXY USA INC	9020	32,35824200	-103,61876680	7/19/1995	[51687] RED TANK, BONE SPRING, EAST: [51689] RED TANK, DELAWARE, WEST
MAILE DETAIN 23 STATE BOOT H	33074	COVINGTON A FEDERAL #011	0	۵	OXY USA INC	9010	32,35732650	-103.62197110	10/28/1995	[51683] RED TAMK, BONE SPRING: [51689] RED TAMK, DELAWARE, WEST
MANY ENDER \$ 5 FATTE ROOM	33082	RED TANK 31 STATE #001	0	I	OXY USA INC	90106	32.35461040	-103.61876680	9/23/1995	(51687) RED TANK, BONE SPRING, EAST; (51689) RED TANK, DELAWARE, WEST
CALMON 30 STATE MOZI	33107	MULE DEER 36 STATE #004	0	٧	EOG RESOURCES INC	9007	32,35369490	-103.62261200	10/10/1995	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
CAUMON 3D STATE MODIT A CONTUSA INC. 9000 32.36/73080 -103.61879200 11/27/19599 CAUMON 3D STATE WOOD C POGGO PRODUCINE CO. 0 32.36/19223 -103.6187922 137/27/9999 COVINGTON A FEDERAL WOLZ 0 C POGGO PRODUCINE CO. 0 32.36/16469 -103.6187930 127/19599 COVINGTON A FEDERAL WOLZ 0 C POGGO PRODUCINE CO. 0 32.36/16469 -103.6187939 127/19599 COVINGTON A FEDERAL WOLZ 0 C POGGO PRODUCINE CO. 0 32.36/16595 -103.6187939 127/19599 COVINGTON A FEDERAL WOLZ 0 P POGGO PRODUCINE CO. 0 32.36/16595 -103.618793 127/19599 COVINGTON A FEDERAL WOLZ 0 P POGGO PRODUCINE CO. 0 32.36/16595 -103.62/16599 127/19599 COVINGTON A FEDERAL WOLZ 0 P DOGGO PRODUCINE CO. 0 32.36/16592 -103.62/16592 127/19599 CHECKER SA FEDERAL WOLZ 0 P DOGGO PRODUCINE CO. 0 32.	33109	RED TANK 30 STATE #002	0	٧	DXY USA INC	9020	32,36141590	-103,61877440	4/23/2000	[51687] RED TANK, BONE SPRING, EAST; [51689] RED TANK, DELAWARE, WEST
CAMANON A DISTATE WORD C POGGO PAGDULING CO.D 0 23.36822218 -103.65878032 127719599 COVINGION A FEGRAL WOLZA INC A OOY USA NUCA NUCA NUCA NUCA NUCA NUCA NUCA NUC	33130	CALMON 30 STATE #001	0	¥	OXY USAINC	0006	32.36473080	-103.61878200	11/27/1995	[51687] RED TANK, BONE SPRING, EAST; [51689] RED TANK, DELAWARE, WEST
COMMINDIA REDBIAL ##131 0 C PROCOR USA NICE 900 22.36184690 1.03.6614631S 12/719589 MEDITAL MARIA STATE RIORA 0 C PROCOR PRODUCING CO. 0 32.36160566 1.03.614631S 12/319999 MANADOR A REDBIAL ##012 0 C PROCOR PRODUCING CO. 0 32.36160566 1.03.614631S 12/319999 MANADOR A REDBIAL ##012 0 P POOVU LAI NIC 8880 32.3616320 1.03.626560 7/311999 MANADOR A REDBIAL ##012 0 P POOVU LAI NIC 8890 32.3613170 1.03.626560 7/311999 MANADOR A REDBIAL ##012 0 P DOVU LAI NIC 8890 32.3613170 1.03.623650 7/311999 MANADOR A REDBIAL ##012 0 A DOVO NENTRA NIC 8890 32.371428 1.03.6236970 7/311999 MACALOR 2 A FEDERAL ##02 0 C DEVON REMEAN PRODUCTION COLA PARADOR 906 32.371428 -106.625740 1.1/47999 MACALOR 2 A FEDERAL ##02 0 0 DEVON REMEAN PRODUCTION CO	33135	CALMON 30 STATE #002	o	υ	POGO PRODUCING CO	0	32.36822218	-103.61878032	12/31/9999	
Mathematical Country (MRT) ATTAINER (MOSTA) C Proco PRIDOUCING CO D 2125460566 103,6146315 12/19/19/99 12/19/19/99 12/19/19/99 12/19/19/99 12/19/99/99/99/99/99/99/99/99/99/99/99/99/	33142	COVINGTON A FEDERAL#013	٥	4	OXY USA INC	0006	32,36184690	-103.62625890	12/27/1995	[51683] RED TANK, BONE SPRING; (51689] RED TANK, DELAWARE, WEST
COMINGTON A FEDERAL MOLTA 0 C PROGO PRODUCTIVE (CO. D. 8.23 SERVICES STATES AND CONTROL OF A PROGUENCY CONTRO	33196	RED TANK 3.1 STATE #003	0	J	POGO PROBUCING CO	O	32.35460956	-103.61446315	12/31/9999	
COVINICIONA FEDERAL MOLTS 0 P CONTUSA INC 888 3.23650202 1.03.626265G 77231956 COVINICIONA FEDERAL MOLTS 0 P CONTUSA INC 9010 3.23638230 1.03.6248920 77311956 COVINICIONA FEDERAL MOLTS 0 P CONTUSA INC 8866 3.23658230 1.03.6237590 47711956 COVINICIONA FEDERAL MOLTS 0 A DON USA INC 8890 3.23658230 1.03.6237590 1.1131996 COVINICIONA FEDERAL MOLTS 0 A DEVON ENERGY PRODUCTION COMPANY, LP 866 3.23751428 1.03.6238288 1.21419999 CHECKERS 24 FEDERAL MOLTS 0 C DEVON ENERGY PRODUCTION COMPANY, LP 866 3.23751428 1.108.6236288 1.21419999 ALACKINISTA REDERAL MOLTS 0 0 DEVON USA INFECTION RESOURCES OF & CASCOD 0 3.23751428 1.108.6236288 1.21419999 ALACKINISTA REDERAL MOLTS 0 0 DEVON USA INC 0 0 3.23751428 1.108.6236270 1.14719999 ALACKINISTA REDERAL MOLTS <t< td=""><td>33223</td><td>COVINGTON A FEDERAL #012</td><td>D</td><td>U</td><td>POGD PRODUCING CO</td><td>0</td><td>32.36367545</td><td>-103,62306850</td><td>12/31/9999</td><td></td></t<>	33223	COVINGTON A FEDERAL #012	D	U	POGD PRODUCING CO	0	32.36367545	-103,62306850	12/31/9999	
COVINIGIONA A FEDERAL MIGHTA 0 P ONY USA INC. 89.0 32.36911770 -103.6240820 7/31/1997 COVINGTON A FEDERAL MIGHTA 0 P OXY USA INC. 8866 32.36508360 -103.62337500 11/31/1995 CHECKIEN ZA FEDERAL MOUSTON A	33224	COVINGTON A FEDERAL #016	0	a	OXY USA INC	8980	32.36820220	-103.62626650	7/23/1996	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
COVINIGION A FEDERAL MOLTON A FEDE	33319	COVINGTON A FEDERAL #015	0	۵	OXY USA INC	9010	32.36911770	-103.62405920	7/31/1997	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
CONNINGTON A FEDERAL MOTOR 0 A DON'USA INC 8890 32.36690850 -103.63293570 11/33/1996 CHECKERS JA FEDERAL MOTOR 0 C DEVON EMERGY PRODUCTION CO. 0 32.37546782 -103.63208389 12/31/9999 CHECKERS JA FEDERAL MOTOR 0 C DEVON EMERGY PRODUCTION COMPANY, LP 5066 32.3721/428 -103.63208288 12/31/9999 A CHECKERS JA FEDERAL MOTOR 0 C DEVON EMERGY PRODUCTION COMPANY, LP 5066 32.3721/428 -103.62202022 12/31/9999 A CHECKERS JA FEDERAL MOTOR 0 C BURLINGTON EMERGY PRODUCTION COMPANY, LP 5066 32.3721/460 -103.6220202 12/31/9999 A CHECKERS JA FEDERAL MOTOR 0 C BURLINGTON EMERGY PRODUCTION COMPANY, LP 5066 32.371/460 -103.6220202 12/31/9999 A CHECKERS JA FEDERAL MOTOR 0 C BURLINGTON EMERGY PRODUCTION COMPANY, LP 5066 32.371/460 -103.6220022 12/31/9999 A CHECKERS JA FEDERAL MOTOR 0 C BURLINGTON EMERGY PRODUCTION COMPANY 0 32.3523210 -103.622070 <td>33399</td> <td>COVINGTON A FEDERAL #014</td> <td>D</td> <td>۵</td> <td>OXY USA INC</td> <td>9968</td> <td>32,36548230</td> <td>-103,62519070</td> <td>4/27/1996</td> <td>[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST</td>	33399	COVINGTON A FEDERAL #014	D	۵	OXY USA INC	9968	32,36548230	-103,62519070	4/27/1996	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST
CHECKERS 24 FEDERAL MODIS C DEVON PERFORM PODUCTION CO. 0 3.237546782 -105.6236888 12/31/9999 CHECKERS 24 FEDERAL MODIS 0 C DEVON PURRON PRIRON PRODUCTION COMPANY. IP 606 3.23721/428 -105.62360238 12/31/9999 ALANDALOPE 24 FEDERAL MODIS 0 P DEVON PRIRON PRIRON PRIRON COMPANY. IP 5066 3.23721/460 -106.62627/10 4/3/1999 ALANDALOPE 24 FEDERAL MODIS 0 C BURININGTON RESOURCES OIL & GAS CO. 0 3.2371/460 -106.62627/10 4/3/1999 ALANDAL MODISTON A FEDERAL M	33614	COVINGTON A FEDERAL #007	0	٧	OXY USA INC	8930	32,36090850	-103.53373570	11/13/1996	[51689] RED TANK, DELAWARE, WEST
CHECKERS 24 FEDERAL MODZ C DEVON PERFOR PRODUCTION CO 0 3.23721428 -10.8.5308288 12/19999 TACHECKERS 24 FEDERAL MODZ 0 P DEVON PERFORM PRINCIPON COMPANY, LP 9066 3.23710460 -108.652627410 4/8/1998 TACKLORE 24 FEDERAL MODY 0 C BURILINGTON RESOURCES OIL & GAG CO. 0 3.23710460 1.06.6226022 12/31/9999 TACKLORE 24 FEDERAL MODY 0 A DOWY USA INC 8850 3.23710460 1.06.6215970 11/41/3999 TACKLORE 24 FEDERAL MODY 0 A A OWY USA INC 8850 3.23632510 1.06.6215970 11/41/3999	33701	CHECKERS 24 FEDERAL #003	o	U	DEVON ENERGY PRODUCTION CO.	0	32.37546782	-103.62308836	12/31/9999	
CHECKERS 24 FEBRAL MOVY 0 P DEVON ENFORMERY PRODUCTION COMPANY. LP 966 3.2.3710460 -108.65637410 4/8/1998 INTACKLORE 24 FEBRAL MOVA 0 C BURILINGTON RESOURCES OIL & GAS CO. 0 3.2.37930532 -100.6220002 12/31/9999 COVINICIONA REDERIAL MOST 0 A A OXY USA INC. 8850 3.2.32582510 -100.62615970 3.1/4/3999 A A A A OXY USA INC. 8850 32.3632510 -100.62615970 3/6/1998	33798	CHECKERS 24 FEDERAL #002	0	U	DEVON ENERGY PRODUCTION CO.	0	32,37211428	-103.62308288	12/31/9999	
INTACKALOPE 24 EDEMAL MIGHA O C BURILIMOTION RESOUNCES OIL & GAS CO. O XX.37910532 -106.6226022 12/31/9999 A A A OOY USA INC. 8850 XX.25562510 -106.62615970 21/4/3999 A A A A OOY USA INC. 8850 XX.25562510 -106.62615970 21/4/3999	34023	CHECKERS 24 FEDERAL #007	0	Ь	DEVON ENERGY PRODUCTION COMPANY, LP	9906	32.37210460	-103.52627410	4/9/1998	[51683] RED TANK, BONE SPRING
COUNCIDID A EDERAL MOST A OXY USA INC 88640 32.35582510 -103.525.8570 13.14/1999 A A A A OXY USA INC 8850 32.35135430 -103.6293760 8/6/1998	34029	JACKALOPE 24 FEDERAL ND04	٥	U	BURLINGTON RESOURCES OIL & GAS CO	0	32.37910532	-103.62202022	12/31/9999	
CONINGTON A FEDERAL HIGGS 0 A ONY USA INC 8950 32.36.23430 -103.62957760 8/6/1998	34455	COVINGTON A FEDERAL #037	0	A	OXY USAINC	8960	32,35982510	-103.52615970	11/4/1999	(51683) RED TANK, BONE SPRING; (51689) RED TANK, DELAWARE, WEST
	34479	COVINGTON A FEDERAL #036	0	۷	OXY USA INC	8950	32,36235430	-103.62957760	8/6/1998	[51683] RED TANK, BONE SPRING; [51689] RED TANK, DELAWARE, WEST

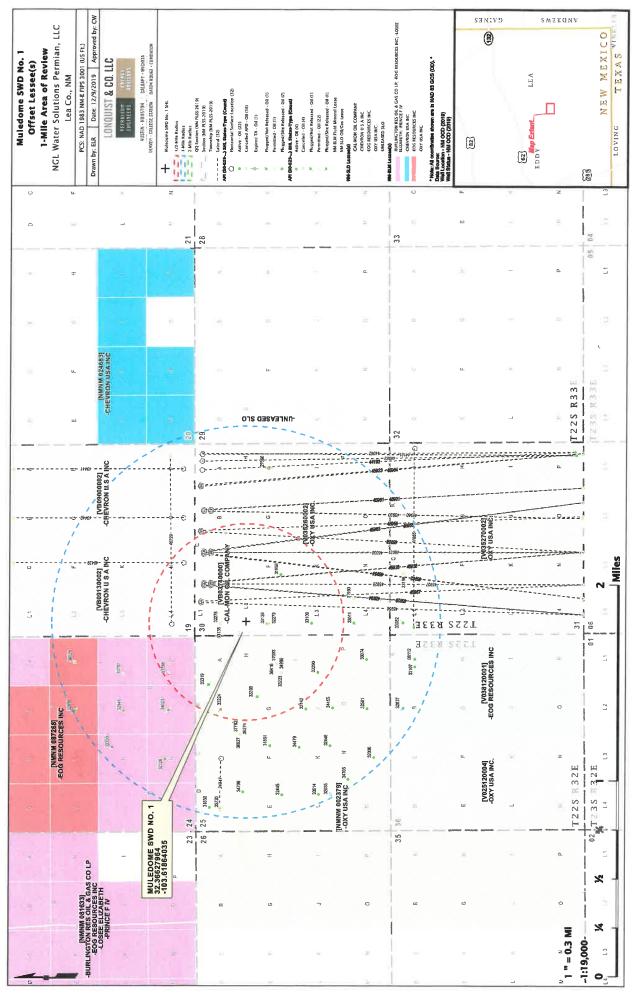
Muledome SWD No. 1 1-Mile Area of Review List NM-OCD (2019)

Muledome SWD No. 1 1-Mile Area of Review List

[51689] RED TANK, DELAWARE, WEST	[51689] RED TANK, DELAWARE, WEST								[51687] RED TANK, BONE SPRING, EAST	[51687] RED TANK, BONE SPRING, EAST	[\$1687] RED TANK, BONE SPRING, EAST	[51687] RED TANK, BONE SPRING, EAST	[S1687] RED TANK, BONE SPRING, EAST	[51687] RED TANK, BONE SPRING, EAST	[51683] RED TANK, BONE SPRING	[51687] RED TANK, BONE SPRING, EAST	[51687] RED TANK, BONE SPRING, EAST	[S1687] RED TANK, BONE SPRING, EAST	[98177] WC-025 G-09 S223332A, UPR WOLFCAMP	[51687] RED TANK, BONE SPRING, EAST	[S1687] RED TANK, BONE SPRING, EAST	(51687) RED TANK, BONE SPRING, EAST	[51687] RED TANK, BONE SPRING, EAST	(51687) RED TANK, BONE SPRING, EAST	[S1687] RED TANK, BONE SPRING, EAST	(\$1687) RED TANK, BONE SPRING, FAST													
10/10/1999	10/31/1999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	7/9/2014	10/19/2017	11/5/2017	11/21/2017	8/1/2018	12/31/9999	7/13/2019	7/10/2019	7/8/2019	6/30/2019	6/24/2019	7/3/2019	6/20/2019	6/22/2019	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/9999	7/16/2019	9/38/2019	12/31/9999	12/31/9999	12/31/9999	12/31/9999	12/31/6699
-103.63240810	-103.63346860	-103,62228806	-103.63480695	-103.62842647	-103.62228806	-103.62842647	-103.62227630	-103.62842647	-103.61878608	-103.61344150	-103.60951230	-103.60523990	-103.60356140	-103.60399450	-103.60457750	-103.60392970	-103.60535480	-103.60668300	-103.61542100	-103.61530800	-103.61519500	-103.61530800	-103.61519500	-103.61542200	-103.60895000	-103.60883600	-103.61268500	-103.61245800	-103.61692800	-103.61681400	-103.61074800	-103.61063400	-103.60894900	-103.60883500	-103.61268500	-103.61245800	-103.60679600	-103.61257100	-103 61252100
32.35869980	32.36655040	32.36403566	32,36816770	32,36678931	32.36403566	32.36678931	32.36403660	32.36678931	32.37185060	32.37094120	32.37093730	32.37093350	32.35369870	32.36952830	32.36952900	32,36952830	32,36952980	32.36964100	32.36893600	32.36893600	32,36893600	32,36943100	32.36943000	32.36943100	32.36942400	32.36942400	32.36893300	32,36893300	32.36965300	32.36965300	32.36964600	32.36964600	32.36892900	32.36892900	32,36942800	32.36942800	32.36964100	32.36893300	32.36942800
8975	0568	o	0	٥	0	0	0	0	0	0	0	0	10,756	1,090	11,996	10,863	9,407	0	0	0	0	o	O	0	0	0	0	o	0	0	0	0	0	0	٥	0	0	0	c
OXY USA INC	OXY USA INC	POGO PRODUCING CO	POGO PRODUCING CO	POGO PRODUCING CO	POGO PROBUCING CO	POGO PRODUCING CO	OXY USA INC	POGO PRODUCING COMPANY LLC	CIMAREX ENERGY CO.	CIMAREX ENERGY CO.	CIMAREX ENERGY CO.	CIMAREX ENERGY CO.	DXY USA INC	OXY USA INC	DXY USA INC	OXY USA INC	OXY USA INC	DXY USA INC	OXY USA INC	OXY USA INC	OXY USA INC	OXY USA INC	DXY USA INC	DXY USA INC	OXY USA INC	OXY USA INC	OXY USA INC	OXY USA INC	DXY USA INC	DXY USA INC	OXY USA INC	OXY USA INC	DXY USA INC	OXY USA INC	DXY USA INC	OXY USAING	DXY USA INC	OXY USA INC	OXY USA INC
A	¥	C	υ	U	υ	υ	Z	U	υ	υ	υ	υ	4	r	ď	A	ď	z	z	z	Z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z	z
٥	0	0	0	0	0	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0	0	С	0	٥	٥	o	٥	٥	٥	0	٥	٥	٥	٥	0	0	0	0
COVINGTON A FEDERAL #034	COVINGTON A FEDERAL #035	COVINGTON A FEDERAL #012	CDVINGTON A FEDERAL #040	COVINGTON A FEDERAL #045C	COVINGTON A FEDERAL #012H	COVINGTON A FEDERAL #045	COVINGTON A FEDERAL #012	COVINGTON A FEDERAL #045	MERCHANT LIVESTOCK 19 22 33 STATE COM #002C	MERCHANT LIVESTOCK 19 22 33 STATE COM #002C	MERCHANT LIVESTOCK 19 22 33 STATE COM #003C	MERCHANT LIVESTOCK 19 22 33 STATE COM #004C	RED TANK 31 STATE #00SH	RED TANK 30 31 STATE COM #024	RED TANK 30 31 STATE COM #034H	RED TANK 30 31 STATE COM #024Y	RED TANK 30 31 STATE COM #014H	AVOGATO 30 31 STATE COM #004H	AVOGATO 30 31 STATE COM #021H	AVOGATO 30 31 STATE COM #022H	AVOGATO 30 31 STATE COM #023H	AVOGATO 30 31 STATE COM #032H	AVOGATO 30 31 STATE COM #033H	AVOGATO 30 31 STATE COM #031H	AVOGATO 30 31 STATE COM #034H	AVOGATO 30 31 STATE COM #035H	AVOGATO 30 31 STATE COM #001H	AVOGATO 30 31 STATE COM #003H	AVOGATO 30 31 STATE COM #011H	AVOGATO 30 31 STATE COM #012H	AVOGATO 30 31 STATE COM #013H	AVOGATO 30 31 STATE COM #014H	AVOGATO 30 31 STATE COM #024H	AVOGATO 30 31 STATE COM #025H	AVOGATO 30 31 STATE COM #071H	AVOGATO 30 31 STATE COM #073H	AVOGATO 30 31 STATE COM #074H	AVOGATO 30 31 STATE COM #002H	AVOGATO 30 31 STATE COM #072H
34705	34706	34998	35720	36274	36416	36627	37003	37782	40229	40439	40440	40441	41885	44062	44063	44161	44193	45923	45924	45925	45926	45927	45928	45929	45930	45931	45954	45955	45956	45957	45958	45959	45960	45961	45962	45963	45964	46030	46031

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		1					Muledome	* SWD #	1: Offsetti	ing Produced V	Muledome SWD #1: Offsetting Produced Water Analysis							
wellname	api	section	section township range unit county	range	unit	county	formation	H	tds mgl s	sodium_mgt	calcium mgt.	iron mgt	magnesium mgt.	manganese mgl.	chloride met	bicarbonate met	suffete met on? met	cn2 mel
ANTELOPE RIDGE UNIT #002	3002520444	4	245	34E	60	Ā	ATOKA	6.7	51475				1	┺	31000	317		
TODD 26 G FEDERAL #001	3001520242	56	235	31E	G	EDDY	ATOKA	6.7	202478						126000	93	240	
THYME APY FEDERAL #002	3002533529	1	235	32E	U	E	BONE SPRING	6.1	172896		0	•	2025		104976	781	1150	
CORIANDER ACC STATE #002	3002533574	1	235	32E	Ξ	ΙEΑ	BONE SPRING	2.2			24176	٥	3815		167962	61.1	165	
THISTLE UNIT #071H	3002542425	22	23S	33E	∢	rea	BONE SPRING 1ST SAND	5.6 17	171476.3	55363.2	9140	40.4	1023	1.1	104576.4	244	260	770
JUNDARY RAIDER 6 FEDERAL #001 3002541884	3002541884	7	235	32E	۷	rea	BONE SPRING 2ND SAND	6 11	117284.4	36911	5399.2	88.1	706.6	1.33	71443.9	378	17	200
LBREY BASIN 5 STATE COM #001 3002540987	3002540987	ιΩ	222	32E	z	Lea	BONE SPRING 2ND SAND	6.3		72568	5821	42	884	80.0	124390	159	650	180
ALDABRA 26 FEDERAL #008H	3001538624	56	235	31E	۵	EDDY	BONE SPRING 3RD SAND	7.1	117079	37414.7	5610.4	22.6	690.7	11	71000	134	662	190
GAUCHO UNIT #011H	3002541184	17	222	34E	0	rea	BONE SPRING 3RD SAND	8.9		43301	5338	0	769	0	78300	122	640	120
GRAHAM AKB STATE #002	3001526876	2	225	31E	Ξ	EDDY	DELAWARE	9	301948		30260	19	5956		188957	25	100	
GAUCHO 21 FEDERAL #002H	3002540626	21	225	34E	Σ	Lea	DELAWARE-BRUSHY CANYON	5.9 26	266467.8	71664.2	20660.8	50.2	3492.5	3.8	167562	366	0	400
SNAPPING 2 STATE #014H	3001542688	7	26S	31E	а.	EDDY	WOLFCAMP	7.3 81	81366.4	26319.4	2687.4	26.1	326.7		50281.2		399.7	100
BELLOQ 2 STATE #002H	3001542895	2	235	31E	U	EDDY	WOLFCAMP	6.8 11	119471.8	37359.2	5659.1	22.4	746.1		73172.5		1035.5	250
WILSON DEEP UNIT #001	3002520461	13	215	34E	-	EA	MORROW		11648						266	2161	5252	
HAT MESA #001	3002524403	14	215	32E	=	ΓEΑ	MORROW	6.4	271555	74325.6	40019.2	123.136	3750.91		199015	288.896	529.248	