

RECEIVED: 10/04/2017	REVIEWER: MAM	TYPE: SWD	APP NO: DMAM1727834407
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND
 REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: Mesquite SWD, Inc.	OGRID Number: 161968
Well Name: Sand Dunes SWD #1	API: 30-015-Pending
Pool: SWD; Devonian-Silurina	Pool Code: 97869

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION
 INDICATED BELOW**

SWD-1697

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
- A. Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD
- B. Check one only for [I] or [II]
- [I] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
- [II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR
- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.
- A. ☐ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☐ Application requires published notice
 D. ☐ Notification and/or concurrent approval by SLO
 E. ☐ Notification and/or concurrent approval by BLM
 F. ☐ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
- ☐ Application
 Content
 Complete

- 3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Kay Havenor

 Print or Type Name

October 4, 2017

 Date

575-626-4518

 Phone Number

See Application

 Signature

kay.Havnor@gmail.com

 e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X Yes No 2017 OCT -4 P 3:34
- II. OPERATOR: Mesquite SWD, Inc
ADDRESS: P.O. Box 1478 Carlsbad, NM 88220
CONTACT PARTY: Kay Havenor PHONE: 575-626-4518
- 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:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. 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: Kay Havenor TITLE: Agent
SIGNATURE: Kay C Havenor DATE: 01/17/2017
E-MAIL ADDRESS: Kay.Havenor@Gmail.com Mesquite SWD, Inc contact: ClayLWilson@hotmail.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: _____

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: Mesquite SWD, Inc. (OGRID 161968)WELL NAME & NUMBER: Sand Dunes SWD #1 30-021- (New Drill)WELL LOCATION: 260' FSL & 2053 FWL N 5 24S 31E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATIC

See attached diagram

PROPOSED WELL CONSTRUCTION DATASurface CasingHole Size: 26" Casing Size: 20" 94# J-55 BTCCemented with: 800 sx. or ft³Top of Cement: Surface Method Determined: CirculateIntermediate-1 CasingHole Size: 17-1/2" Casing Size: 13-3/8" 68# HCN-80 LTCCemented with: 1000 sx. or ft³Top of Cement: Surface Method Determined: CirculateIntermediate-2 CasingHole Size: 12 1/4" Casing Size: 9 5/8" 47# HCLCemented with: 1800 sx. or ft³Top of Cement: Surface Method Determined: Circulated

Liner

Hole Size 8½" Casing Size 7⅝" 39/42.8# P-110

Cemented with: 2600 sx. or ft³

Top of Cement Surface Method Determined Opr

Total Depth: Approx 17,860'

Injection Interval

Approximately 16,470' To Approximately 17,860'

(Perforated or Open Hole; indicate which) Open Hole

INJECTION WELL DATA SHEET

Tubing Size: 5.5" 0-11,415' 17/20#, 4.5" 11,415'-16,470' Lining Material: Fiberglass coated

Type of Packer: Lok-Set or equivalent

Packer Setting Depth: Approx 16,470 ft

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

Additional Data

1. Is this a new well drilled for injection? X Yes No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: Siluro-Devonian

3. Name of Field or Pool (if applicable): _____

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. New drill

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Bone Springs 9324', Siluro-Devonian approximately 16,470'

Mesquite SWD, Inc.
 Sand Dunes SWD #1
 260' FSL & 2053' FWL
 Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

PROPOSED NEW WELL DIAGRAM

API: 30025XXXX
 Operator: Mesquite SWD, Inc
 Lease: Sand Dunes SWD #1 SWD
 Location: Sec 5, T24S-R31E Eddy Co., NM
 Footage: 260 FSL, 2053 FWL

Well No:

KB: 3492' est
 GL: 3470
 MSL of TD: -14390' est
 32.23900N 103.79914W

Surface Csg

Size: 20" 94# J-55 BTC
 Set @: 800
 Sxs cmt: 1980
 Circ: Yes
 TOC: Surf
 Hole Size: 26"

Intermediate Csg

Size: 13-3/8" 68# HCN-80 LTC
 Set @: 4,400
 Sxs cmt: 1000
 Circ: Yes
 TOC: Surf
 Hole Size: 17-1/2"

Intermediate-2 Csg

Size: 9-5/8" 47# HCL
 Set @: 11700
 Sxs cmt: 1800
 Circ: Yes
 Hole Size: 12-1/4"

Liner

Size: 7-5/8" 39/42.8# P-110
 Top: 11415
 Set @: 16470
 Sx cmt: 2600
 Circ: Yes
 Hole Size: 8-1/2"

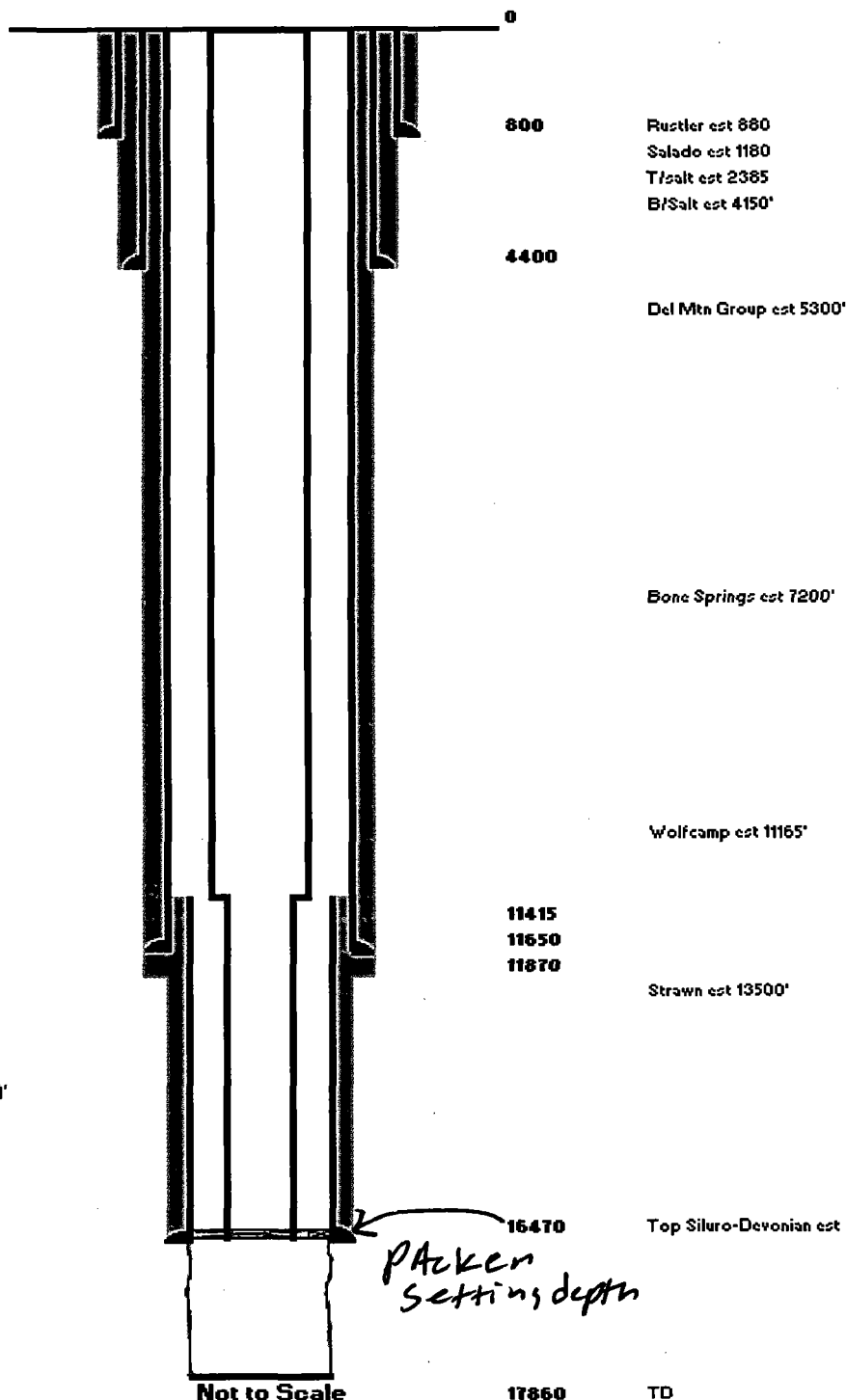
Open Hole

Size:
 Interval: 16620-18010'
 Hole Size: 6-1/4"

Tubular requirements (made-up): 5-1/2"
 0-300' 17# N80 Butt, 330'-11,000' 17# N80 LTC,
 11,000'-11,415' 20# N80 LTC, 4.5" 11,415'-12,800'
 11.6# P110 LTC, 12,800'-14,400' 13.5# N80 LTC
 14,400'-16,470' 31.5# P110 LTC

Lok-Set or equivalent approx 16,470'

Open hole acid if required.
 Tubing annulus w/corrosion inhibitor
 Complete surface head for disposal

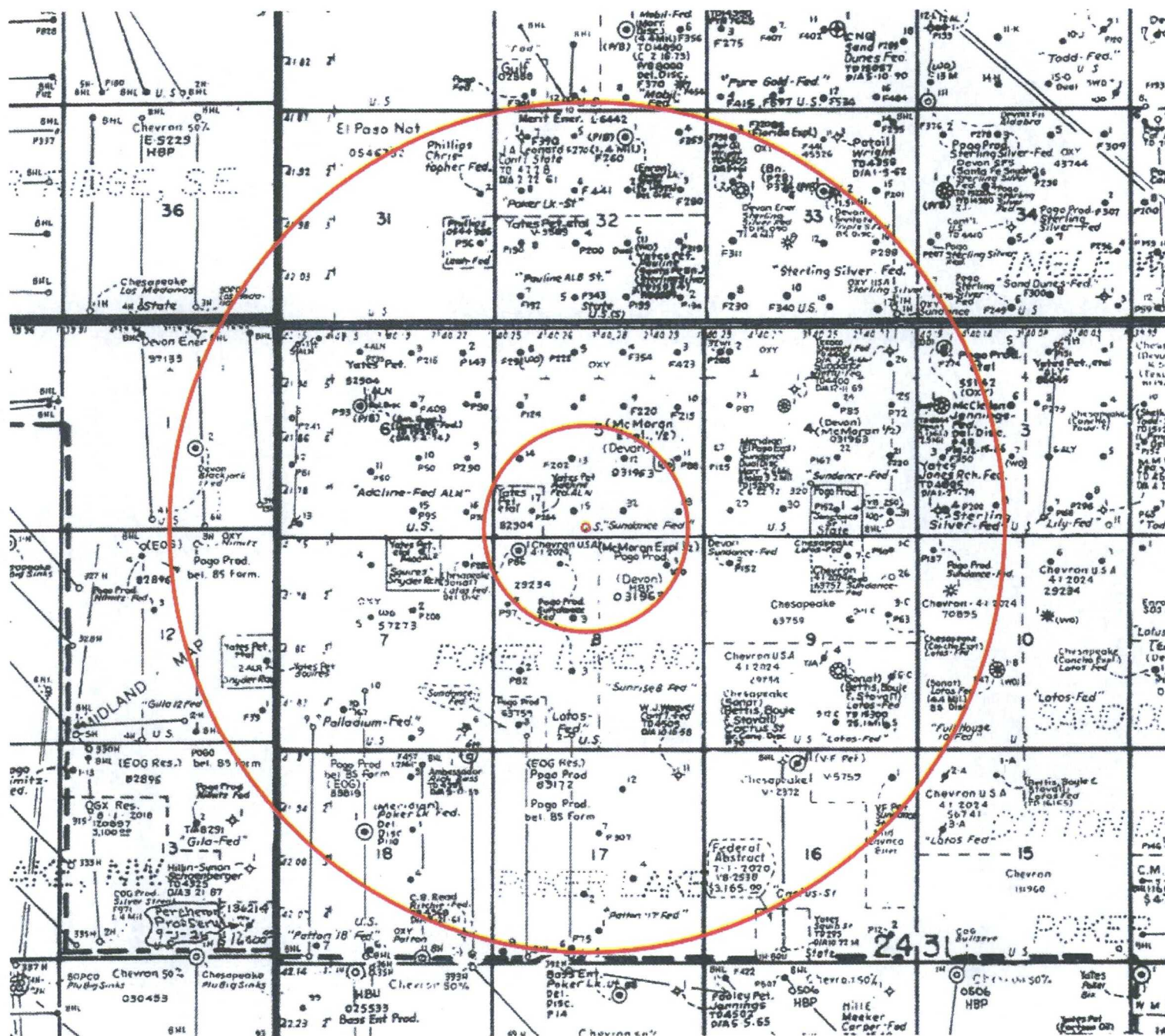


Mesquite SWD, Inc.
Sand Dunes SWD #1
260' FSL & 2053' FWL
Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

Item V:

Area of Review
½ Mile AOR and 2 Mile Radius

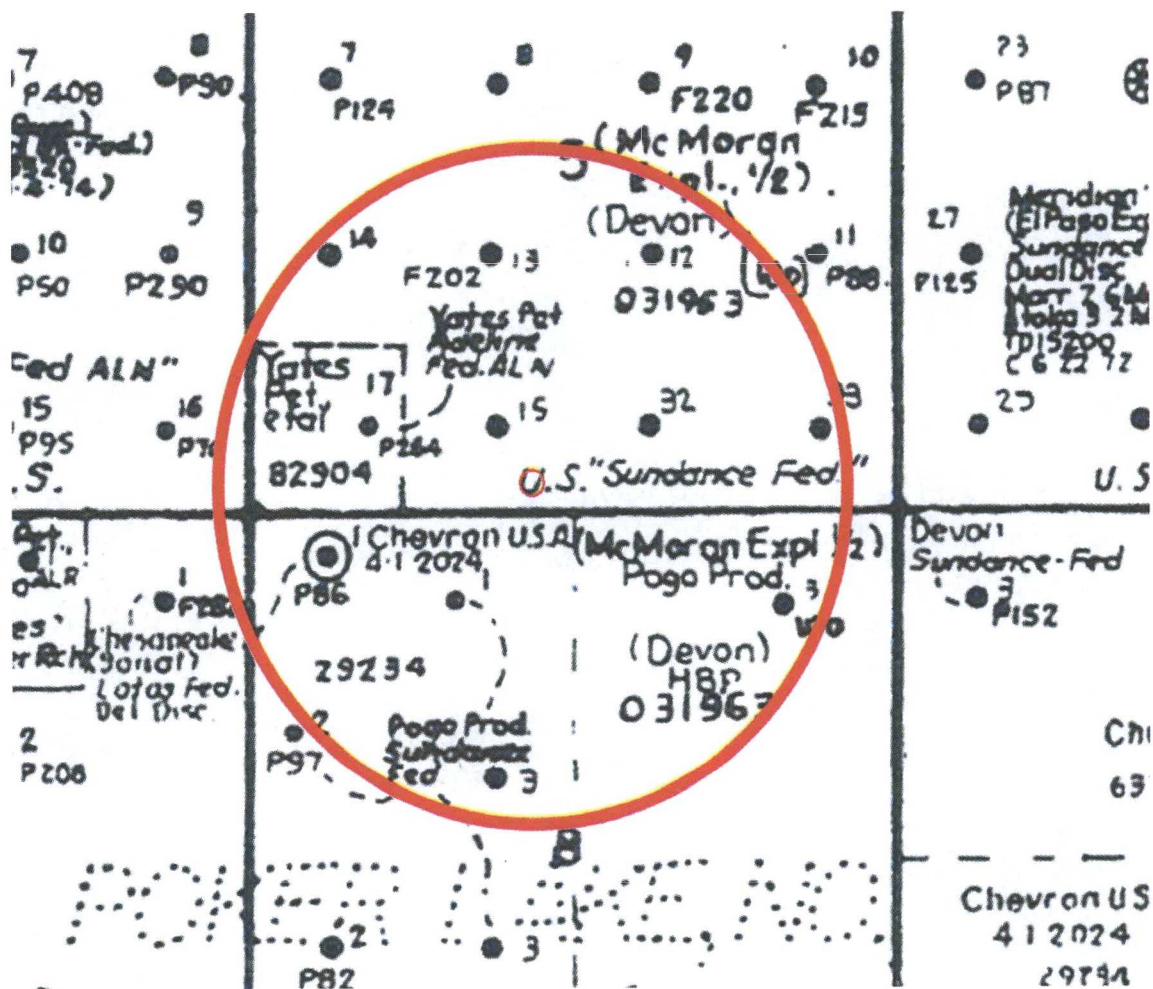


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API 30-015-unassigned

Item V (a):

AOR Half - Mile



Mesquite SWD, Inc.
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API 30-015-unassigned

Item VI: Data on wells in AOR:

API	WELL_NAME	STATUS	SDIV	SEC	TWN	RANGE	FTG_	NS	FTG	EW	OCD	OPERATOR	WELL	LAND	PLUG_DATE	SPUD	ELEVGL	TVD_DEPTH
3001527578	SUNDANCE FEDERAL 011	Active	I	5	24.0S	31E	1980 S		660 E			OXY USA INC	O	F		12-Jan-94	3418	8200
3001527580	SUNDANCE FEDERAL 013	Active	K	5	24.0S	31E	1980 S		1980 W			OXY USA INC	O	F		30-Oct-93	3438	8171
3001527581	SUNDANCE FEDERAL 014	Plugged	L	5	24.0S	31E	1980 S		660 W			OXY USA INC	O	F	25-Apr-08	11-Feb-94	3446	8170
3001527281	ADELIN ALN FEDERAL 017	Active	M	5	24.0S	31E	660 S		660 W			EOG Y RESOURCES, INC.	O	F		10-Dec-93	3465	8162
3001527595	SUNDANCE FEDERAL 015	Active	N	5	24.0S	31E	660 S		1980 W			OXY USA INC	O	F		28-Jan-94	3466	8200
3001527280	ADELIN ALN FEDERAL 016	Active	P	6	24.0S	31E	660 S		330 E	P		EOG Y RESOURCES, INC.	O	F		31-Oct-93	3466	8160
3001527890	PALLADIUM 7 FEDERAL 001	Active	A	7	24.0S	31E	610 N		760 E	A		OXY USA INC	O	F		23-Mar-94	3497	8195
3001528270	SQUIRES ALR 001	Active	B	7	24.0S	31E	330 N		1750 E	B		EOG Y RESOURCES, INC.	O	P		13-May-95	3471	8136
3001532817	PALLADIUM 7 FEDERAL 004	Active	C	7	24.0S	31E	660 N		2310 W	C		OXY USA INC	O	F		09-Feb-04	3472	8223
3001532816	PALLADIUM 7 FEDERAL 005	Active	F	7	24.0S	31E	1980 N		2310 W	F		OXY USA INC	O	F		03-Jun-03	3494	8200
3001529145	PALLADIUM 7 FEDERAL 002	Active	G	7	24.0S	31E	1800 N		1980 E	G		OXY USA INC	O	F		26-Dec-96	3486	8200
3001527228	SUNDANCE 8 FEDERAL 001	Plugged	C	8	24.0S	31E	330 N		1650 W			OXY USA INC	O	F	24-Apr-12	02-Mar-94	3474	8208
3001528044	LOTOS FEDERAL 801	Active	D	8	24.0S	31E	330 N		660 W	D		CHEVRON U S A INC	O	F		19-Mar-95	3479	8772
3001527229	SUNDANCE 8 FEDERAL 002	Active	E	8	24.0S	31E	1650 N		330 W	E		OXY USA INC	O	F		25-Jul-94	3513	8220
3001532758	LOTOS 8 FEDERAL 803	Active	F	8	24.0S	31E	1980 N		1980 W	F		CHEVRON U S A INC	O	F		30-May-03	3500	8265

No well in the AOR penetrates the proposed SWD disposal zone.

Mesquite SWD, Inc.
 Sand Dunes SWD #1
 260' FSL & 2053' FWL
 Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

Item VII:

1. The maximum injected volume anticipated is 40,000 BWPD. Average anticipated is 30,000 BWPD.
2. Injection will be through a closed system.
3. Maximum injection pressure is expected to be 3,324 psi, or as controlled by depth.
4. Sources will be produced water that is compatible with known waters in the disposal zones.
5. Water sample analyses from the surrounding Siluro-Devonian area are not know. However, the regional information indicates it commercially non-productive of hydrocarbons. The closest water sample is from the Delaware in Sec. 25, T26S-R32E. It is representative of Delaware water that might be received for disposal.

General Information About: Sample 4222			
NORTH EL MAR UNIT 022			
API	3002508278	Sample Number	
Unit/Section/ Township/Range	J / 25 / 26 S / 32 E	Field	EL MAR
County	Lea	Formation	DEL
State	NM	Depth	
Lat/Long	32.01136 / - 103.62579	Sample Source	UNKNOWN
TDS (mg/L)	244815	Water Type	
Sample Date(MM/DD/YYYY)		Analysis Date(MM/DD/YYYY)	
Remarks/Description			
Cation Information (mg/L)		Anion Information (mg/L)	
Potassium (K)		Sulfate (SO)	220
Sodium (Na)		Chloride (Cl)	153500
Calcium (Ca)		Carbonate (CO ₃)	
Magnesium (Mg)		Bicarbonate (HCO ₃)	88
Barium (Ba)		Hydroxide (OH)	
Manganese (Mn)		Hydrogen Sulfide (H ₂ S)	
Strontium (Sr)		Carbon Dioxide (CO ₂)	
Iron (Fe)		Oxygen (O)	


Data obtained from <http://octance.nmt.edu>

Mesquite SWD, Inc.
 Sand Dunes SWD #1
 260' FSL & 2053' FWL
 Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

Item VIII:

Disposal will be into the Siluro-Devonian formations above the Montoya Formation. There are no known potable water wells within a 2-mile radius. Records from the New Mexico Office of the State Engineer on December 22, 2016 shows known water wells within a 2-mile radius of the proposed Mesquite SWD disposal well. The 2 closest wells are in the east-half of Sec. 3, outside the AOR. The well depths are above Mesquite's scheduled surface casing depth of 650'.

New Mexico Office of the State Engineer Wells with Well Log Information																				
<div> <div>  <p>(A CLVWNNH in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)</p> </div> <div> <p>(R=POD has been replaced, O=orphaned, C=the file is closed)</p> <p>(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)</p> <p>(NAD83 UTM in meters)</p> </div> </div> <div> <p>(in feet)</p> </div>																				
POD Number	Sub-Code	basin	County	Source	q	q	q	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File	Depth Well	Depth Water	Driller	License Number
C 02783	CUB	ED	Shallow	3	3	1	04	24S	31E		613011	3568461	1328	09/09/2010	09/29/2010	10/18/2010	708		SANDIA NATIONAL LABS/USGS	
C 02783 POD2	C	ED	Shallow	3	3	1	04	24S	31E		613011	3568461	1328	09/09/2010	09/29/2010	10/18/2010	672		BRUNSON, WILLIAM	331
C 02784	C	ED	Shallow	4	2	4	04	24S	31E		613011	3568461	1328	10/06/2010	10/06/2010	10/18/2010	584		BRUNSON, WILLIAM	331
C 02440	C	ED		2	3	10		24S	31E		616103	3560599	3057	03/20/1995	03/21/1995	04/25/1995	350		COLLIS, ROBERT E. (LD)	1184
<p>Record Count: 4</p> <p>Basin/County Search:</p> <p>County: Eddy</p> <p>UTMNA83 Radius Search (in meters):</p> <p>Easting (X): 613146 Northing (Y): 3567376 Radius: 3200</p>																				
<p>*UTM location was derived from PLSS - see Help</p> <p>The data is furnished by the NMOS/ISC and is accepted by the recipient with the expressed understanding that the OS/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.</p> <p>12/22/16 11:58 AM Page 1 of 1 WELLS WITH WELL LOG INFORMATION</p>																				

Known water salinity in greater area:

WELLNAME	API	TOWNSHIP	RANGE	SECTION	TDS(mg/L)	Chlorides(mg/L)
COTTON DRAW UNIT #203H	3001541847	24S	31E	26	155991.9	93761.5
COTTON DRAW UNIT #211H	3001541941	24S	31E	34	155270.6	93359.6
COTTON DRAW UNIT #114	3001537410	24S	31E	34	258924	160043.3
COTTON DRAW UNIT #155H	3001538607	24S	31E	35	250734.8	154666.1
COTTON DRAW UNIT #152H	3001538609	24S	31E	35	258919.1	157593.1
COTTON DRAW UNIT #114	3001537410	24S	31E	34	268137.4	161607.2
COTTON DRAW UNIT #119H	3001537447	24S	31E	26	252483.3	152004
ADELINE ALN FEDERAL #003	3001527244	24S	31E	06		148966
ADELINE ALN FEDERAL #007	3001527248	24S	31E	06		189957
COTTON DRAW UNIT #244H	3001542331	24S	31E	36	113124.8	71446.6
1234567						

The surface geology of the greater area, including the 2-mile radius as shown in Item V above, is Holocene to middle Pleistocene gypsiferous eolian deposits that blanket the underlying Permian Rustler Formation and evaporites. Based upon surface geology and available shallow data the depth to potential potable water (not hole depth), if present, is estimated to be less than 350'.

Water samples in Sand Dunes SWD #1 greater area

Sand Dunes SWD #1

Unit N, 260' FSL & 2053' FWL
Sec 5, T24S-R31E, Eddy Co., NM

WELLNAME	API	TOWNSHIP	RANGE	SECTION	TDS(mg/L)	Chlorides(mg/L)
TODD 23 C FEDERAL #018	3001532628	23S	31E	23	277304.6	167584
TODD 23 C FEDERAL #018	3001532628	23S	31E	23	277467	167584
TODD 27 I FEDERAL #009	3001535521	23S	31E	27	183197.7	113568
TODD 27 I FEDERAL #009	3001535521	23S	31E	27	183536	113568
TODD 26 F FEDERAL #003	3001520302	23S	31E	26	248668.5	147008
TODD 36 B STATE #015	3001529102	23S	31E	36	277300.2	168386
TODD 14 K FEDERAL #001	3001520298	23S	31E	14	283352.3	179150
TODD 23 O FEDERAL #001	3001520786	23S	31E	23	259135.1	160870
TODD 23 J FEDERAL #002	3001522473	23S	31E	23	78713.6	45722
TODD 23 I FEDERAL #004	3001528828	23S	31E	23	281743.1	178230
GRAHAM AKB STATE #003	3001531804	22S	31E	02		164963
GRAHAM AKB STATE #009	3001531806	22S	31E	02		166962
<i>Bone Spring</i> → ARK 36 STATE #001H	3001542082	22S	31E	36	146288.1	90420.2
GRAHAM AKB STATE #001	3001526875	22S	31E	02	295345	184958
GRAHAM AKB STATE #002	3001526876	22S	31E	02	301948	188957

Water samples in Sand Dunes SWD #1 greater area

Sand Dunes SWD #1

Unit N, 260' FSL & 2053' FWL
Sec 5, T24S-R31E, Eddy Co., NM

WELLNAME	API	TOWNSHIP	RANGE	SECTION	TDS(mg/L)	Chlorides(mg/L)
TODD 23 C FEDERAL #018	3001532629	23S	31E	23	277304.6	167584
TODD 23 C FEDERAL #018	3001532629	23S	31E	23	277467	167584
TODD 27 I FEDERAL #009	3001535521	23S	31E	27	183187.7	113568
TODD 27 I FEDERAL #009	3001535521	23S	31E	27	183536	113568
TODD 26 F FEDERAL #003	3001520302	23S	31E	26	248686.5	147008
TODD 38 B STATE #015	3001529102	23S	31E	36	277300.2	169386
TODD 14 K FEDERAL #001	3001520298	23S	31E	14	283352.3	179150
TODD 23 O FEDERAL #001	3001520788	23S	31E	23	259135.1	160870
TODD 23 J FEDERAL #002	3001522473	23S	31E	23	76713.6	45722
TODD 23 I FEDERAL #004	3001526928	23S	31E	23	281743.1	178230
GRAHAM AKB STATE #003	3001531604	22S	31E	02		164963
GRAHAM AKB STATE #009	3001531606	22S	31E	02		166962
ARK 36 STATE #001H	3001542082	22S	31E	36	146288.1	90420.2
GRAHAM AKB STATE #001	3001526875	22S	31E	02	295345	184958
GRAHAM AKB STATE #002	3001526876	22S	31E	02	301948	188957

Devon Energy Corp
Water samples (commingled) from Bone Springs and Wolfcamp

WELLNAME	API	TOWNSHIP	RANGE	SECTION	TDS(mg/L)	Chlorides(mg/L)
TODD 14 K FEDERAL #001	3001520298	23S	31E	14	283352.3	178150
TODD 14 K FEDERAL #001	3001520298	23S	31E	14	301108.9	176934

Kay C. Havenor

Office: 575-626-4518
e-mail: Kay.Havenor@Gmail.com
904 Moore Ave
Roswell, New Mexico 88201-1144

September 7, 2017

New Mexico OCD
Attn: Mr. Michael McMillan
1220 South St. Francis Dr.
Santa Fe, NM 81505

Re: Mesquite SWD, Inc.
Sand Dunes SWD #1
Sec 5, T24S-R31E, Eddy Co., NM
C-108 application

Dear Mr. McMillan:

The proposed well construction in the submitted application may have minor field changes due to actual joint lengths received on site. Casing depths in this well are planed to insure there will be no hydrologic connection between underground sources of drinking water and the injection zone.

Respectfully submitted,



Kay Havenor, PhD, PG
Agent on behalf of Mesquite SWD, Inc.

Mesquite SWD, Inc.
Sand Dunes SWD #1
260' FSL & 2053' FWL
Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

Item IX:

Acid may be applied after completion. No other formation stimulation is currently planned.

Item X:

Gama, density, neutron logs will be run.

Item XI:

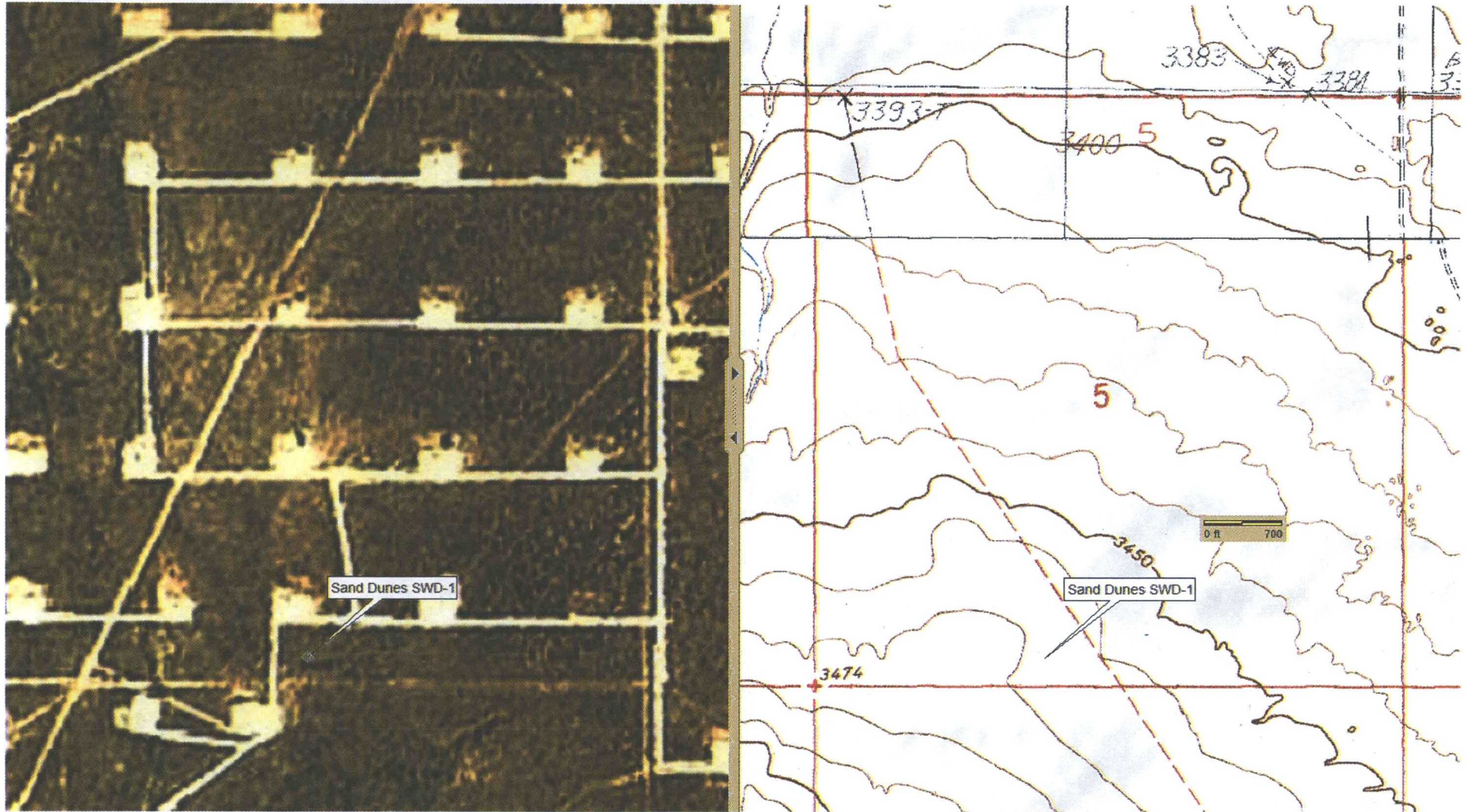
Two shallow water wells are reported in a 2-mile radius of the proposed SWD. Please note Item VIII discussion above.

Item XII:

There is no geological evidence of open faults or hydrologic connection between the disposal zone and any possible underground sources of protectable water.

Mesquite SWD, Inc.
Sand Dunes SWD #1
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Sec. 5, T24S-R31E Eddy County, NM

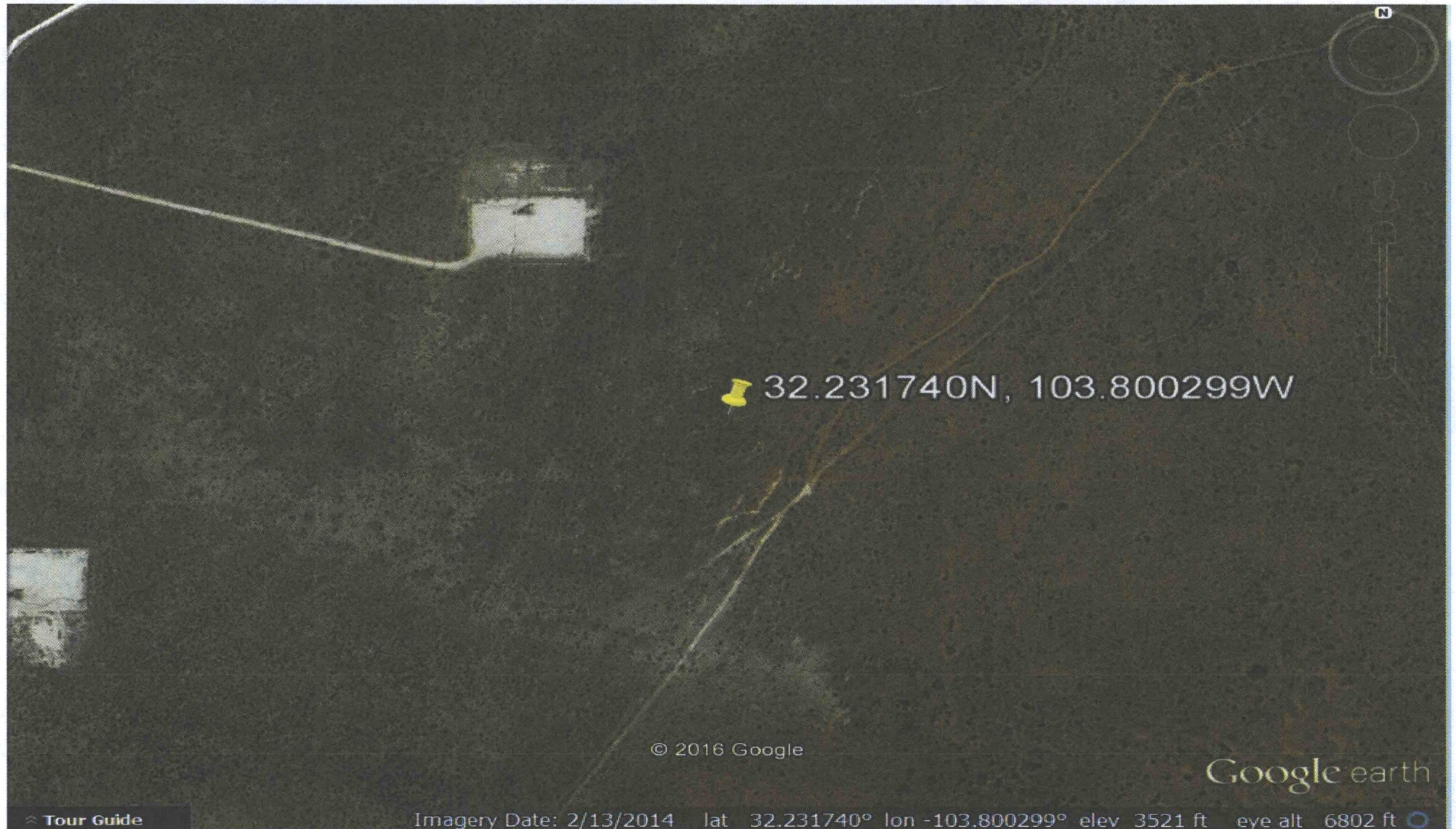
API 30-015-unassigned



Delorme Xmap 6

Mesquite SWD, Inc.
Sand Dunes SWD #1
260' FSL & 2053' FWL
Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned



Google Earth
16 miles east of Malaga, NM

Mesquite SWD, Inc.
Sand Dunes SWD #1
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Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

Item XIII: Proof of Notice

Minerals Owner:

Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 88220

Surface:

Bureau of Land Management

Operators:

Chevron USA
15 Smith Road
Midland, TX 79702

Sec 8

Devon Energy Corp
333 W. Sheridan Ave
Oklahoma City, OK 73102-5015

Sec 5 and 8

EOG-Y Resources, Inc.
105 S. 4th St.
Artesia, NM 88210

Sec 5

OXY Oil and Gas Corporation
5 Greenway Plaza, Ste 110
Houston, TX 77046-0521

Sec 5

Mesquite SWD, Inc.
Sand Dunes SWD #1
260' FSL & 2053' FWL
Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

Item XIII: Legal Publication

Affidavit of Publication

No. 24171

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn says that she is the

Publisher

of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Ad

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for
1 Consecutive weeks/day on the same

day as follows:

First Publication January 19, 2017

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Sixth Publication

Subscribed and sworn before me this

19th day of January 2017



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2019

Latisha Romine

Latisha Romine

Notary Public, Eddy County, New Mexico

Copy of Publication:

Legal Notice

Mesquite SWD, Inc., c/o Kay Havenor, 904 Moore Ave, Roswell, NM, (575) 626-4518, is seeking approval from the New Mexico Oil Conservation Division to drill and complete the Sand Dunes SWD #2 well API: not assigned, located 2600' FSL & 2500' FWL Sec. 8, T24S-R31E Eddy County, NM, 17 miles west of Malaga, NM, and complete for commercial produced water disposal as the Mesquite SWD, Inc. Sand Dunes SWD #2. The proposed disposal interval is the Sluro-Devonian Formation in open-hole approximately 16,620' to 18,010' with a maximum of 3,324 psi to dispose a maximum of 40,000 BWP.

Parties with questions regarding this proposal may contact Kay Havenor at the address or phone number above. Interested parties must file objections or requests for hearing within 15 days of this publication to the Oil Conservation Division: 1220 So. St. Francis Dr., Santa Fe, NM 87505.

Published in the Artesia Daily Press, Artesia, N.M., Jan. 19, 2017 Legal No: 24171.

Mesquite SWD, Inc.
Sand Dunes SWD #1
260' FSL & 2053' FWL
Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

Item XIII: Notification Receipts (Page 1)


January 22, 2017

Dear Customer:

The following is the proof-of-delivery for tracking number **785356757843**.

Delivery Information:

Status:	Delivered	Delivered to:	Receptionist/Front Desk
Signed for by:	M.BROWN	Delivery location:	6301 DEAUVILLE MIDLAND, TX 79705
Service type:	FedEx Express Saver	Delivery date:	Jan 19, 2017 11:29
Special Handling:	Deliver Weekday		
	Direct Signature Required		



Shipping Information:

Tracking number:	785356757843	Ship date:	Jan 18, 2017
		Weight:	0.5 lbs/0.2 kg

Recipient:
CHEVRON USA
15 SMITH RD
MIDLAND, TX 79705 US

Shipper:
HAVENOR OPERATING COMPANY
904 MOORE AVE
ROSWELL, NM 88201 US

Thank you for choosing FedEx.

Mesquite SWD, Inc.
Sand Dunes SWD #1
260' FSL & 2053' FWL
Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned


Notification Receipts (Page 2)

Dear Customer:

The following is the proof-of-delivery for tracking number **785356810860**.

Delivery Information:

Status:	Delivered	Delivered to:	Mailroom
Signed for by:	D.EDWARDS	Delivery location:	5 GREENWAY PLZ 110 HOUSTON, TX 77046
Service type:	FedEx Express Saver	Delivery date:	Jan 19, 2017 10:16
Special Handling:	Deliver Weekday Direct Signature Required		



Shipping Information:

Tracking number:	785356810860	Ship date:	Jan 18, 2017
		Weight:	0.5 lbs/0.2 kg

Recipient:
OXY OIL GAS CORPORATION
5 GREENWAY PLZ STE 110
HOUSTON, TX 77046 US

Shipper:
HAVENOR OPERATING COMPANY
904 MOORE AVE
ROSWELL, NM 88201 US

Thank you for choosing FedEx.

Mesquite SWD, Inc.
Sand Dunes SWD #1
260' FSL & 2053' FWL
Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

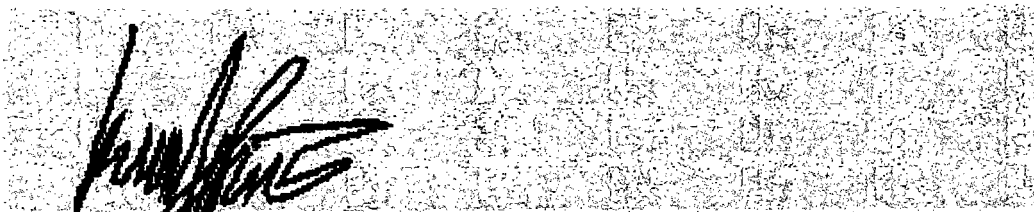
Notification Receipts (Page 3)

Dear Customer:

The following is the proof-of-delivery for tracking number **785356879830**.

Delivery Information:

Status:	Delivered	Delivered to:	Shipping/Receiving
Signed for by:	I.PINON	Delivery location:	333 W SHERIDAN AVE OKLAHOMA CITY, OK 73102
Service type:	FedEx Express Saver	Delivery date:	Jan 19, 2017 09:20
Special Handling:	Deliver Weekday Direct Signature Required		



Shipping Information:

Tracking number:	785356879830	Ship date:	Jan 18, 2017
		Weight:	0.5 lbs/0.2 kg

Recipient:
DEVON ENERGY CORP
333 W SHERIDAN AVE
OKLAHOMA CITY, OK 73102 US

Shipper:
HAVENOR OPERATING COMPANY
904 MOORE AVE
ROSWELL, NM 88201 US

Thank you for choosing FedEx.

Mesquite SWD, Inc.
Sand Dunes SWD #1
260' FSL & 2053' FWL
Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

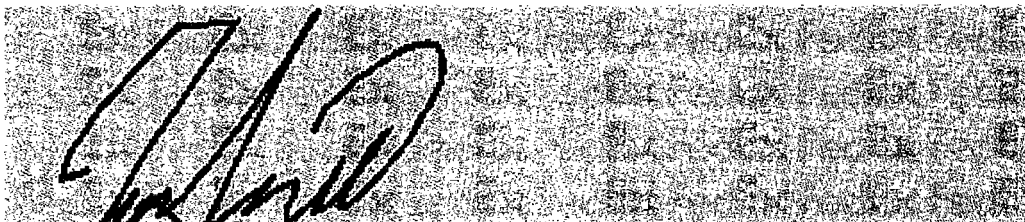
Notification Receipts (Page 4)

Dear Customer:

The following is the proof-of-delivery for tracking number **785356848304**.

Delivery Information:

Status:	Delivered	Delivered to:	Receptionist/Front Desk
Signed for by:	J.FRANCO	Delivery location:	620 E GREENE ST CARLSBAD, NM 88220
Service type:	FedEx Express Saver	Delivery date:	Jan 23, 2017 10:28
Special Handling:	Deliver Weekday		
	Direct Signature Required		



Shipping Information:

Tracking number:	785356848304	Ship date:	Jan 18, 2017
		Weight:	0.5 lbs/0.2 kg

Recipient:
BLM
620 E GREENE ST
CARLSBAD, NM 88220 US

Shipper:
HAVENOR OPERATING COMPANY
904 MOORE AVE
ROSWELL, NM 88201 US

Thank you for choosing FedEx.

Mesquite SWD, Inc.
Sand Dunes SWD #1
260' FSL & 2053' FWL
Sec. 5, T24S-R31E Eddy County, NM

API 30-015-unassigned

Notification Receipts (Page 5)



February 15, 2017

Dear Customer:

The following is the proof-of-delivery for tracking number **778422800600**.

Delivery Information:

Status:	Delivered	Delivered to:	Receptionist/Front Desk
Signed for by:	N.ANDERSON	Delivery location:	104 S 4TH STREET ARTESIA, NM 88210
Service type:	FedEx Standard Overnight	Delivery date:	Feb 15, 2017 09:34
Special Handling:	Deliver Weekday		

A handwritten signature in black ink, appearing to be "N. Anderson", written over a background of a repeating "FedEx" logo pattern.

Shipping Information:

Tracking number:	778422800600	Ship date:	Feb 14, 2017
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Recipient:
EOG-Y Resources, Inc.
EOG-Y Resources, Inc.
105 S 4TH ST
ARTESIA, NM 88210 US

Shipper:
Deborah Havenor
904 Moore Ave
Roswell, NM 88201 US

Thank you for choosing FedEx.



C-108 Review Checklist:

Received: 10/01/2017 Add. Request: 10/06/2017 Reply Date: Suspended: [Ver 15]

ORDER TYPE: WFX / PMX / SWD Number: Order Date: Legacy Permits/Orders:

Well No. 1 Well Name(s): Sand Dunes SWD#1

API: 30-0-15-Pending Spud Date: TBID New or Old: N (UIC Class II Primacy 03/07/1982)

Footages 2053 FWL Lot or Unit N Sec 5 Tsp 24S Rge 31E County Eddy

General Location: 230 miles NW JAL Pool: SWD Devonian-Silurian Pool No.: 97865

BLM 100K Map: JAL Operator: Mesquite SWD, Inc. OGRID: Contact:

COMPLIANCE RULE 5.9: Total Wells: 27 Inactive: 2 Fincl Assur: OK Compl. Order? N/A IS 5.9 OK? Y Date: 10-20-2017

WELL FILE REVIEWED Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed or RE-ENTER: Before Conv. After Conv. Logs in Imaging: N/A

Planned Rehab Work to Well:

Well Construction Details		Sizes (in)	Setting	Cement	Cement Top and Determination Method
		Borehole / Pipe	Depths (ft)	Sx or Cf	
Planned or Existing	Surface	26" / 20"	800'	1980	Surface / Visual
Planned or Existing	Interm/Prod	17 1/2" / 13 3/4"	4400	1000	Surface / Visual
Planned or Existing	Interm/Prod	12 1/4" / 9 5/8"	11700	1980	Surface / Visual
Planned or Existing	Prod Line	8 1/2" / 7 5/8"	16470	11700	C-B-L
Planned or Existing	Liner				
Planned or Existing	OH/PERF	16470 / 16620 / 18010	Inj Length: 1390		
Injection Lithostratigraphic Units:		Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.					Drilled TD 17860 PBTD see bottom
Confining Unit: Litho. Struc. Por.					NEW TD NEW PBTD
Proposed Inj Interval TOP:					NEW Open Hole or NEW Perfs
Proposed Inj Interval BOTTOM:					Tubing Size in. Inter Coated?
Confining Unit: Litho. Struc. Por.					Proposed Packer Depth 16470 ft
Adjacent Unit: Litho. Struc. Por.					Min. Packer Depth 16370 (100-ft limit)
					Proposed Max. Surface Press. 3324 psi
					Admin. Inj. Press. 3324 (0.2 psi per ft)
AOR: Hydrologic and Geologic Information					
POTASH: R-111-P Noticed? BLM Sec Ord WIPP Noticed? Salt/Salado T: 2325-B: 4150 NW: Cliff House fm					
FRESH WATER: Aquifer Max Depth HYDRO AFFIRM STATEMENT By Qualified Person					
NMOSE Basin: CAPITAN REEF: thru adj NA No. Wells within 1-Mile Radius? FW Analysis					
Disposal Fluid: Formation Source(s) Delaware, Bane Springs, Walker Analysis? On Lease Operator Only or Commercial					
Disposal Int: Inject Rate (Avg/Max BWPD): MA 140L Protectable Waters? Source: System Closed or Open					
HC Potential: Producing Interval? Formerly Producing? Method: Logs/DST/P&A/Other Regional 2-Mile Radius Pool Map					
AOR Wells: 1/2-M Radius Map? Well List? Total No. Wells Penetrating Interval: Horizontals?					
Penetrating Wells: No. Active Wells Num Repairs? on which well(s)? Diagrams?					
Penetrating Wells: No. P&A Wells Num Repairs? on which well(s)? Diagrams?					
NOTICE: Newspaper Date JAN 15, 2017 Mineral Owner BLM Surface Owner BLM N. Date JAN 15, 2017					
RULE 26.7(A): Identified Tracts? Affected Persons: OX N. Date Feb 15, 2017					

Order Conditions: Issues: (1) C-B-L 500' top Liner to bottom Liner

Add Order Cond: (2) 5 1/2" tubing Surface Intermediate 4 1/2" tubing inside Liner