Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
12/06/2017		SWD	pMAM1734256342

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 #2 **API:** 30-015-44131
Pool: SWD;Devonian – ~~montoya~~ **Pool Code:** ~~97869~~ 97803

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

SWD-1667-A
Mesquite SWD, Inc
161968

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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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.

11/22/2017
Date

Melanie J. Wilson
Print or Type Name

575-914-1461
Phone Number

Melanie J Wilson
Signature

mjp1692@gmail.com
e-mail Address

MESQUITE SWD, INC.
PO Box 1479
CARLSBAD, NM 88221-1479
575-887-0980

November 20, 2017

Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Attention: Mr. Michael McMillan

Re: Order No. SWD-1667
API #30-015-44131
Sand Dunes SWD #2

Dear Mr. McMillan:

Mesquite SWD, Inc. seeks to amend SWD-1667 which authorizes produced water disposal in the Devonian and Silurian formations through open hole interval 16620 to 18010 feet. We request that this Order be amended to include the Montoya formation in the injection interval with the injection interval being 16547 – 17920'. Attached is a letter from Kay Havenor stating that the Montoya formation will not accept nor yield fluid.

Mesquite SWD, Inc. also requests that SWD-1667 be amended to allow a tapered tubing string, with 5 1/2" tubing inside the surface and intermediate casings and 4 1/2" tubing inside the liner.

Attached is a copy of the completion report that was filed with BLM through the WIS system. A copy was also delivered along with logs to the Artesia OCD on November 13, 2017.

Thank you for your consideration of this application. Please let me know if there is anything further that you need. I may be reached at 575-914-1461 or by email at mjp1692@gmail.com.

Sincerely,

Melanie J. Wilson
Regulatory Analyst

Kay C. Havenor

Ph.D., Registered Geologist Arizona #30438
Certified Professional Geologist
Environmental - Hydrogeology
Remote Sensing - Resources

Office: 505-624-4518
e-mail kay.havenor@gmail.com
904 Moore Avenue
Roswell, New Mexico 88201

November 3, 2017

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

Re: Mesquite SWD, Inc.
Sand Dunes SWD # 2
Sec 8, T24S-R31, Eddy Co.
SWD-1667 API 30-015-44131

Mr. McMillan:

Reviewing data from the above referenced well where the hole penetrated the upper-most Montoya formation, the mud-log, sample descriptions, depth and rate of drilling, in my opinion, indicate the dense Montoya dolomite will neither accept nor yield fluid.

Respectfully,

Kay Havenor

Copy: Mesquite SWD, Inc.

State of New Mexico
Energy, Minerals and Natural Resources Department

Administrative Order SWD-1667
February 23, 2017

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Pursuant to the provisions of Division Rule 19.15.26.8B. NMAC, Mesquite SWD, Inc. (the "operator") seeks an administrative order for its Sand Dunes SWD Well No. 2 ("proposed well") with a location of 2600 feet from the South line and 2500 from the West line, Unit K of Section 8, Township 24 South, Range 31 East, NMPM, Eddy County, New Mexico, for the purpose of commercial disposal of produced water.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 19.15.26.8B. NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 19.15.26.8 NMAC have been met and the operator is in compliance with Rule 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, Mesquite SWD, Inc. (OGRID 161968), is hereby authorized to utilize its Sand Dunes SWD Well No. 2 (API 30-015-pending) with a location of 2600 feet from the South line and 2500 from the West line, Unit K of Section 8, Township 24 South, Range 31 East, NMPM, Eddy County, for disposal of oil field produced water (UIC Class II only) through an open hole interval consisting of the Devonian and Silurian formations from 16620 feet to approximately 18010 feet.

Injection will occur through internally-coated, **4-1/2-inch or smaller tubing** and a packer set within 100 feet of the top of the open-hole interval.

This permit does not allow disposal into the Ellenburger formation (lower Ordovician) or lost circulation intervals directly on top and obviously connected to this formation. The operator shall provide logs and a mudlog over the proposed interval which verify that only the permitted interval is completed for disposal.

Prior to commencing disposal, the operator shall submit mudlog and geophysical logs information, to the Division's District geologist and Santa Fe Bureau Engineering office, showing evidence agreeable that only the permitted formation is open for disposal including a summary of

depths (picks) for contacts of the formations which the Division shall use to amend this order for a final description of the depth for the injection interval.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the completion and construction of the well as proposed in the application and, if necessary, as modified by the District Supervisor.

The operator shall circulate the cement behind the casing to surface for all surface and intermediate casings.

The operator shall run a CBL (or equivalent) across the 7-5/8-inch liner from approximately 16620 feet to 11000 feet to demonstrate a good cement across the liner and good cement bond across the 9-5/8-inch casing.

The operator shall supply the Division with a copy of a mudlog over the permitted disposal interval and an estimated insitu water salinity based on open-hole logs. If significant hydrocarbon shows occur while drilling, the operator shall notify the Division's District II and the operator shall be required to receive written permission prior to commencing disposal.

Operator shall submit the results of the swab test which shall include formation water analysis and hydrocarbon potential of the injection interval to the Division's District geologist and Santa Fe Bureau Engineering office prior to commencing injection.

Within two years after commencing disposal, the operator shall conduct an injection survey, consisting of a temperature log or equivalent, over the entire injection interval using representative disposal rates. Copies of the survey results shall be provided to the Division's District I office and Santa Fe Engineering Bureau office.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

The wellhead injection pressure on the well shall be limited to **no more than 3324 psi,** but may be modified by the Division Director following the completion of the initial Step-Rate Test. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum

allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formations. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's District II office of the date and time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's District II office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The Division may revoke this injection order after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) years after the effective date of this Order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this Order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.

David R. Catanach

DAVID R. CATANACH
Director

DRC/mam

cc: Oil Conservation Division – Artesia District Office
Bureau of Land Management – Carlsbad
Administrative Application – pMAM1704452217

Form 3160-4
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. NMNM29234

1a. Type of Well ☐ Oil Well ☐ Gas Well ☐ Dry ☒ Other: INJ
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator: MESQUITE SWD INC
Contact: MELANIE WILSON
E-Mail: mjp1692@gmail.com

8. Lease Name and Well No.: SAND DUNES SWD 2

3. Address: PO BOX 1479, CARLSBAD, NM 88221

3a. Phone No. (include area code): Ph: 575-914-1461

9. API Well No.: 30-015-44131

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface: NESW 2600FSL 2500FWL

At top prod interval reported below: NESW 2600FSL 2500FWL

At total depth: NESW 2600FSL 2500FWL

10. Field and Pool, or Exploratory: SWD;DEVONIAN

11. Sec., T., R., M., or Block and Survey or Area: Sec 8 T24S R31E Mer NMP

12. County or Parish: EDDY

13. State: NM

14. Date Spudded: 05/02/2017

15. Date T.D. Reached: 07/01/2017

16. Date Completed: ☐ D & A ☒ Ready to Prod. 10/23/2017

17. Elevations (DF, KB, RT, GL)*: 3515 GL

18. Total Depth: MD 17920 TVD 17920

19. Plug Back T.D.: MD 17920 TVD 17920

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
GR; CBL; MUD LOG

22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☒ No ☐ Yes (Submit analysis)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
26.000	20.000 J55	133.0	0	832		1142		0	
17.500	13.375 P110	68.0	0	4250		2315		0	
12.250	9.625 P110	53.5	0	11698	4353	2650		0	
8.500	7.625 P110	39.0	11215	16547		375		11215	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
5.500	10932		4.500	16535	16542			

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) DEVONIAN	16547	17920				
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #393378 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status
			→					

29. Disposition of Gas *(Sold, used for fuel, vented, etc.)*
UNKNOWN

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				WOLFCAMP	11650
				STRAWN	13550
				ATOKA	13640
				MORROW	14440
				BARNETT	15541
				MISSISSIPPI	15974
				WOODFORD	16420
				DEVONIAN	16530
				MONTOYA	17722

32. Additional remarks (include plugging procedure):
16547' - 17920' Open Hole Completion

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)
2. Geologic Report
3. DST Report
4. Directional Survey
5. Sundry Notice for plugging and cement verification
6. Core Analysis
7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #393378 Verified by the BLM Well Information System.
For MESQUITE SWD INC, sent to the Carlsbad

Name *(please print)* MELANIE WILSON Title REGULATORY ANALYST

Signature (Electronic Submission) Date 10/29/2017

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****