# State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

Tony Delfin Acting Cabinet Secretary David R. Catanach, Division Director Oil Conservation Division



Administrative Order SWD-1649 September 2, 2016

### 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 proposed Cedar Canyon SWD Well No. 1 with a location 1310 feet from the South Line and 1153 feet from the East line, Unit P of Section 8, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico, for 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 Division Rule 19.15.26.8 NMAC have been met and the operator is in compliance with Division Rule 19.15.5.9 NMAC.

#### IT IS THEREFORE ORDERED THAT:

Mesquite SWD, Inc. (OGRID 161968), is hereby authorized to utilize its Cedar Canyon SWD Well No. 1 (API 30-015-pending) with a proposed location 1310 feet from the South Line and 1153 feet from the East line, Unit P of Section 8, Township 24 South, Range 29 East, NMPM, Eddy County, for disposal of oil field produced water (UIC Class II only) through an open-hole interval within the Devonian and Silurian formations from 14800 feet to 16000 feet. Injection will occur through internally-coated, 4<sup>1</sup>/<sub>2</sub>-inch or smaller tubing and a packer set within 100 feet of the uppermost perforation.

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 formations are 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.

This permit does not permit disposal into the Ellenburger formation (lower Ordovician) or lost circulation intervals directly on top and obviously connected to this formation.

The operator shall supply the Division with a copy of a mudlog over the permitted disposal

Administrative Order SWD-1649 Mesquite SWD, Inc. September 2, 2016 Page 2 of 3

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 office 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.

The operator shall circulate all surface and intermediate casings to the surface.

The operator shall run a CBL (or equivalent) across the 7-5/8-inch liner from approximately 14800 feet to 11000 feet to demonstrate a good cement across the 7-5/8-inch liner, and good bond between the liner and the 9-5/8-inch casing.

Within one year after commencing disposal, the operator shall submit to the Division copies of an injection survey run on this well consisting of a temperature log, or equivalent, run under representative disposal rates.

#### **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 well construction proposed and described in the application.

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 <u>no more than 2960 psi</u>. 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 formation. 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

Administrative Order SWD-1649 Mesquite SWD, Inc. September 2, 2016 Page 3 of 3

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 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.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's District II office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

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 permit after notice and hearing if the operator is in violation of 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.

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DAVID R. CATANACH Director

DRC/mam

cc: Oil Conservation Division – Artesia District Office Administrative Application No. - pMAM1623131212

Submit   Copy To Appropriate District	State of New Mexi		Form C-103
Office	Energy, Minerals and Natura		Revised July 18, 2013
<u>District 1</u> - (575) 393-6161 1625 N. French Dr., Hobbs, NM 88240	Energy, Minerals and Matura	WELL API NO.	NC//3043049/10, 2015
District II - (575) 748-1283	OIL CONSERVATION I		30-015-44054
811 S. First St., Artesia, NM 88210 District III - (505) 334-6178		5 Indicate Type (	of Lease
1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Franc	SIALE	FEE 🛛
District IV - (505) 476-3460	Santa Fe, NM 875	05 6. State Oil & Ga	s Lease No.
1220 S. St. Francis Dr., Santa Fe, NM 87505		1	
	ES AND REPORTS ON WELLS	7. Lease Name or	Unit Agreement Name
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PROPOSALS.) 1. Type of Well: Oil Well	Gas Well D Other SWD	8. Well Number	1
2. Name of Operator MESOUIT	E SWD, INC.	9. OGRID Numbe	er 161968
3. Address of Operator PO BOX		10. Pool name or	Wildcat
•	AD NM 88220	[96101] SWD;	1 PA 1 1
4. Well Location			
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	et from the <u>SOUTH</u> line and <u>1</u>		
Section 8			DY County
	11. Elevation (Show whether DR, R	KB, RT, GR, etc.)	
	2929' GR		
12. Check A	ppropriate Box to Indicate Nat	ure of Notice, Report or Other	Data
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OTHER:		OTHER: Change plans/tubing size	$\boxtimes$
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13. Describe proposed or comple	ted operations. (Clearly state all per	tinent details, and give pertinent date	s, including estimated date
	k). SEE RULE 19.15.7.14 NMAC.	For Multiple Completions: Attach w	
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Riley Neatherlin w/Mesquite SV run the tapered tubing string.			
Order SWD-1649.			
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I hereby certify that the information a	bove is true and complete to the best	of my knowledge and belief.	-
	IAAC-		
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SIGNATURE	4 UDON TITI	E <u>Regulatory Analyst</u> DATE <u>0</u>	5/25/2017
Transformation 2 Andrew Alexandre			,
Type or print name <u>Melanie J. Wik</u>	E-mail address: mp1692@g	mail.com PHONE: <u>575-914-1461</u>	•
For State Use Only			1 <b>1</b> .
APPROVED BY:	тіті с		°E:
Conditions of Approval (if any):	TITLE	DA1	E
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This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well and not later than 60 days after completion of closure. When submitted as a completion report, this shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 11, 12 and 26-31 shall be reported for each zone.

### INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeast	ern New Mexico	Northwestern New Mexico			
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn A"		
T. Salt	T. Strawn 11860`	T. Kirtland	T. Penn. "B"		
B. Salt	T. Atoka	T. Fruitland	T. Penn. "C"		
T. Yatés	T. Miss	T. Pictured Cliffs	T. Penn. "D"		
T. 7 Rivers	T. Devonian 14665'	T. Cliff House	T. Leadville		
T. Queen	T. Silurian	T. Menefee	T. Madison		
T. Grayburg	T. Montoya 15720'	T. Point Lookout	T. Elbert		
T. San Andres	T. Simpson	T. Mancos	T. McCracken		
T. Gloriéta	T. McKee	T. Gallup	T. Ignacio Otzte		
T Paddock	T. Ellenburger	Base Greenhorn	T.Granite		
T. Blinebry	T. Gr. Wash	T. Dakòta			
T.Tubb	T. Delaware Sand	T. Morrison			
T. Drinkard	T. Bone Springs 6570'	T.Todilto			
T. Abo	T. Morrow 12712'	T. Entrada			
T. Wolfcamp 9880		T. Wingate			
T. Penn		T. Chinle			
T. Cisco (Bough C)	· · · · · · · · · · · · · · · · · · ·	T. Permian			
an a			OIL OR GAS		

No. I. from	to	No. 3, from	to
No. 2, from	to		to
	IMPORTANT	WATER SANDS	

NDS OD ZONES

## Include data on rate of water inflow and elevation to which water rose in hole.

No:	ា្	from	to	feet	
No.	2		1 · · · · · · · · · · · · · · · · · · ·	feet	
				feet	

# LITHOLOGY RECORD (Attach additional sheet if necessary)

From	То	Thickness In Feet	Lithology	From	То	Thickness In Feet	Lithology
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×.							
		-					· · ·
	<u>                                      </u>				L	i	

# Kay C. Havenor

Ph.D., Registered Geologist Arizona #30438 Certified Professional Geologist

Environmental - Hydrogeology Remote Sensing - Resources

May 25, 2017

Mr. Michael A. McMillan Engineering Bureau NM OCD 1220 South St. Francis Drive Santa Fe, NM 87505

Mr. McMillan:

In reviewing the data on Mesquite SWD, Inc Cedar Canyon SWD #1, SWD-1649 30-015-44054 at TD the hole penetrated 45' of upper-most Montoya. The mud-log sample descriptions, depth and drill-rate, in my opinion, confirm Montoya dense bedded dolomite that will not accept nor yield fluid.

Respectfully submitted,

KAY Housenor

Office: 505-624-4518

e-mail kay havenor@gmail.comu 904 Moöre Avenue Roswell, New Mexico 88201