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

APPLICATION OF MESQUITE SWD, INC.
TO APPROVE PRODUCED WATER DISPOSAL
WELL IN EDDY COUNTY, NEW MEXICO.

CASE NO. 20314

APPLICATION

Mesquite SWD, Inc. ("Mesquite"), OGRID No. 161968, through its undersigned attorneys, hereby makes this application to the Oil Conservation Division pursuant to the provisions Rule No. 19.15.4.8 for an order approving drilling of a produced water disposal well in Eddy County, New Mexico. In support of this application, Mesquite states as follows:

(1) Mesquite proposes to drill the Laguna Salada 19 SWD #1 well at a surface location 1752 feet from the South line and 1727 feet from the East line (Unit J) of Section 19, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico for the purpose of operating a produced water disposal well.

(2) Mesquite seeks authority to inject produced water into the Siluro-Devonian formation through the open-hole interval from approximately 14,500' to 15,700'.

(3) Mesquite further seeks approval of the use of 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 40,000 bbls per day.

(4) Mesquite anticipates a maximum injection pressure of 2,900 psi, or as controlled by depth.

(5) On or about July 25, 2018 Mesquite SWD, Inc., filed with the Division, an administrative application for approval of the subject well for produced water disposal.

(6) On December 13, 2018, Mesquite was notified by the Division that the subject application was denied for administrative approval, and that the option to set the matter for hearing before a Division Examiner remained an option.

(7) A proposed C-108 for the subject well is attached hereto in Attachment A.

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

WHEREFORE, Mesquite requests that this application be set for hearing before an Examiner of the Oil Conservation Division on March 7, 2019; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

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

By: Deana M Bennett

Deana Bennett
Post Office Box 2168
Bank of America Centre
500 Fourth Street NW, Suite 1000
Albuquerque, New Mexico 87103-2168
Telephone: 505.848.1800
Attorneys for Applicant

CASE NO. _____: Application of Mesquite SWD, Inc., for approval of produced water disposal well in Eddy County, New Mexico. Applicant seeks an order approving disposal into the Silurian-Devonian formation through the Laguna Salada 19 SWD #1 well at a surface location 1752 feet from the South line and 1727 feet from the East line (Unit J) of Section 19, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico for the purpose of operating a produced water disposal well. Mesquite seeks authority to inject produced water into the Silurian-Devonian formation at a depth of approximately 14,500' to 15,700. Mesquite further seeks approval of the use of 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 40,000 bbls per day. Said area is located approximately 4.5 miles East of Loving, New Mexico.

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:

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: Laguna Salada 19 SWD #1 **API:** Not Yet Assigned
Pool: SWD;Devonian **Pool Code:** 96101

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

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.

07/25/2018
Date

Melanie J. Wilson
Print or Type Name

575-914-1461
Phone Number

Melanie J Wilson
Signature

mjp1692@gmail.com
mail Address

EXHIBIT
tabbies
A

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? _____ Yes _____ No

II. OPERATOR: Mesquite SWD, Inc.

ADDRESS: PO Box 1479, Carlsbad, NM 88221-1479

CONTACT PARTY: Melanie Wilson PHONE: 575-914-1461

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: Melanie Wilson TITLE: Regulatory Analyst

SIGNATURE: Melanie Wilson DATE: 7/25/2018

E-MAIL ADDRESS: mjp1692@gmail.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: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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.

DISTRICT I
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 RD., 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, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-	96101	SWD; DEVONIAN

Property Code	Property Name	Well Number
	LAGUNA SALADA 19 SWD	1

OGRID No.	Operator Name	Elevation
161968	MESQUITE SWD	2961.1'

Surface Location

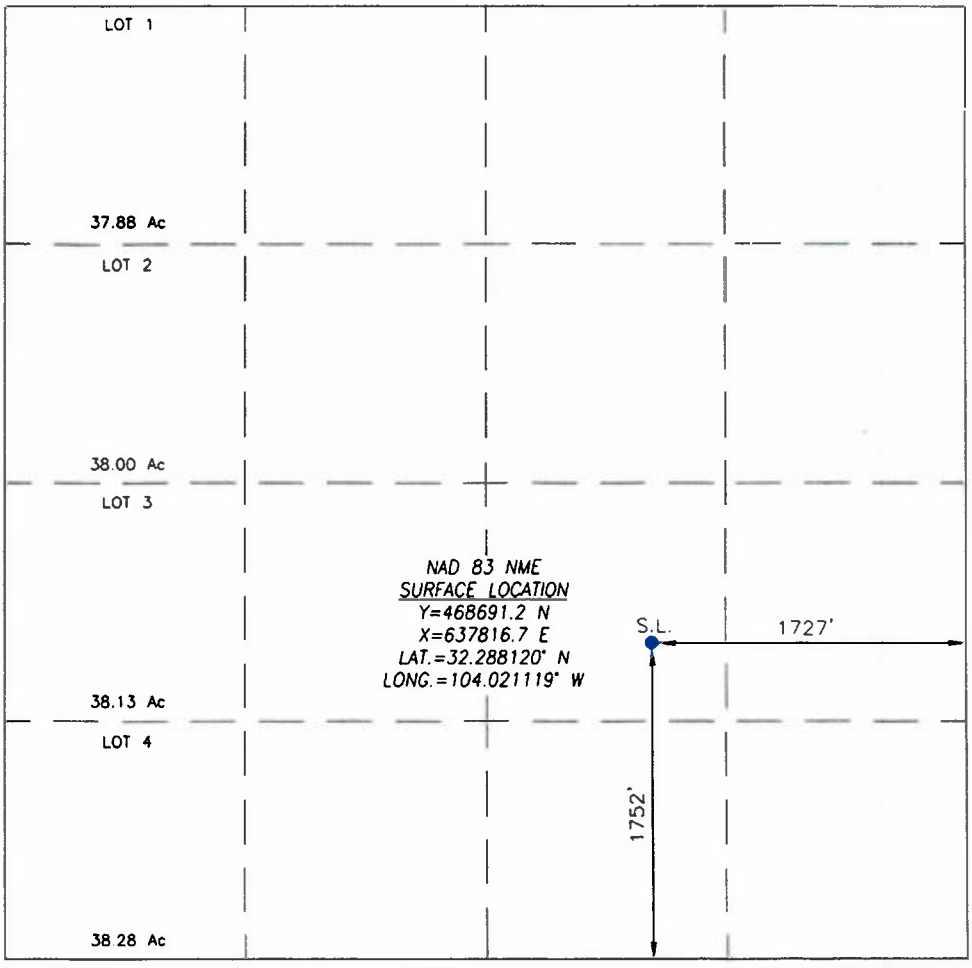
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	19	23-S	29-E		1752	SOUTH	1727	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Melanie J. Wilson 05/29/2018
Signature Date

Melanie J Wilson
Printed Name

mjp1692@gmail.com
E-mail Address

SURVEYOR 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 and correct to the best of my belief.

MARCH 5, 2018
Date of Survey

Signature & Seal of Professional Surveyor

CHAD L. HARCROW
NEW MEXICO
17777
LICENSED PROFESSIONAL SURVEYOR

3/27/18
Certificate No. CHAD HARCROW 17777

W.O. # 18-157 DRAWN BY: SP

INJECTION WELL DATA SHEET

OPERATOR: Mesquite SWD, Inc.

WELL NAME & NUMBER: Laguna Salada 19 SWD #1

WELL LOCATION: 1752' FSL & 1727' FEL | J | 19 | 23S | 29E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 26" Casing Size: 20" 94# J55 BTC

Cemented with: 400 sx or _____ ft^3

Top of Cement: Surface Method Determined: Circulate

1st Intermediate Casing

Hole Size: 17.5" Casing Size: 13.375" 54.5# NE80 BTC

Cemented with: 1450 sx or _____ ft^3

Top of Cement: Surface Method Determined: Circulate

2nd Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625" 53.5# P110 BTU

Cemented with: 2200 sx or _____ ft^3

Top of Cement: Surface Method Determined: Circulate

Liner

Hole Size: 8.5" Casing Size: 7.625" 39# ECP-110 J-2/STL FJ

Cemented with: 200 sx or _____ ft^3

Top of Cement: 9400' Method Determined: Opr

Total Depth: Approx. 15,700'

Injection Interval

Approximately 14500' To 15700'

(Perforated or Open Hole; indicate which) Open Hole

Tubing Size: Tapered string 7" 26# P110 / 5.5" 20# P110 JFE Bear Lining Material: Fiberglass coated

Type of Packer: Lok-Set or equivalent

Packer Setting Depth: Approximately 14,500'

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): SWD; Devonian
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: Delaware & Bone Spring horizons all above approximately 9770'

   For what purpose was the well originally drilled? _____

Mesquite SWD, Inc.
Laguna Salada 19 SWD #1
API #30-015-
1752' FSL & 1727' FEL
Section 19, T23S, R29E, Eddy County, NM

Proposed Well Bore Diagram

KB: 2986'
GL: 2961'

Surface Casing
Size: 20" 94# J-55 BTC
Set @: 350'
Sx Cmt: 400
TOC: Surf
Hole Size: 26"

1st Intermediate Casing
Size: 13 3/8" 54.5# NE80 BTC
Set @: 2650'
Sx Cmt: 1450
TOC: Surf
Hole Size: 17 1/2"

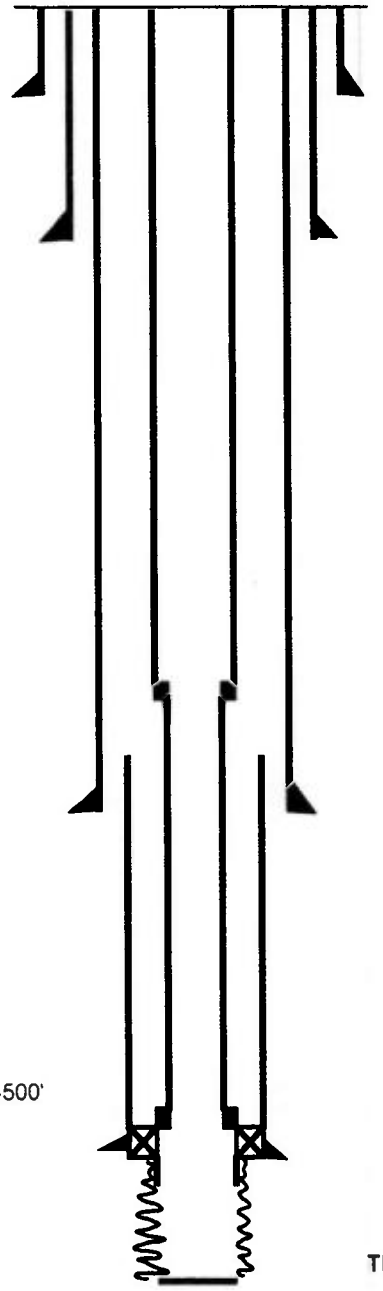
2nd Intermediate Casing
Size: 9 5/8" 53.5# P-110 BTU
Set @: 9900'
Sx Cmt: 2200
TOC: Surf
Hole Size: 12 1/4"

Liner
Size: 7 5/8" 39# ECP-110 J-2/STL FJ
Top: 9400'
Set @: 14500'
Sx Cmt: 200
TOC: 9400'
Hole Size: 8 1/2"

Open Hole
Interval: 14500'-15700'
Hole Size: 6 1/2"

Tubing
7" 26# P-110 Tbg @ 9105'
7" x 5 1/2" X-Over @ 9200'
5 1/2" 20# JFE Bear Tbg @ 14495'
7 5/8" x 5 1/2" Dual Bore Permapak Packer @ 14500'

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

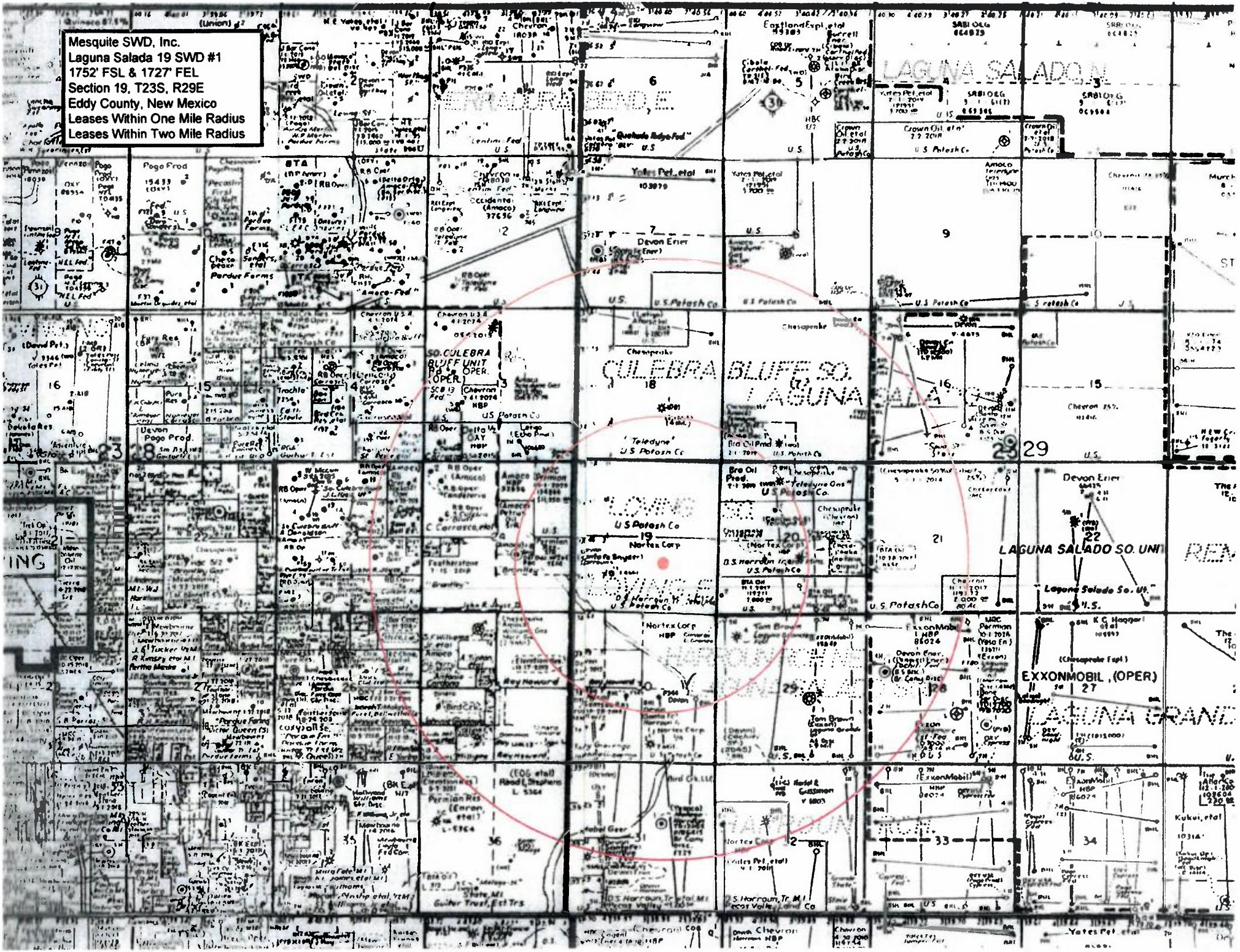


350'
2650'
9400'
9900'
14500'
TD 15700'

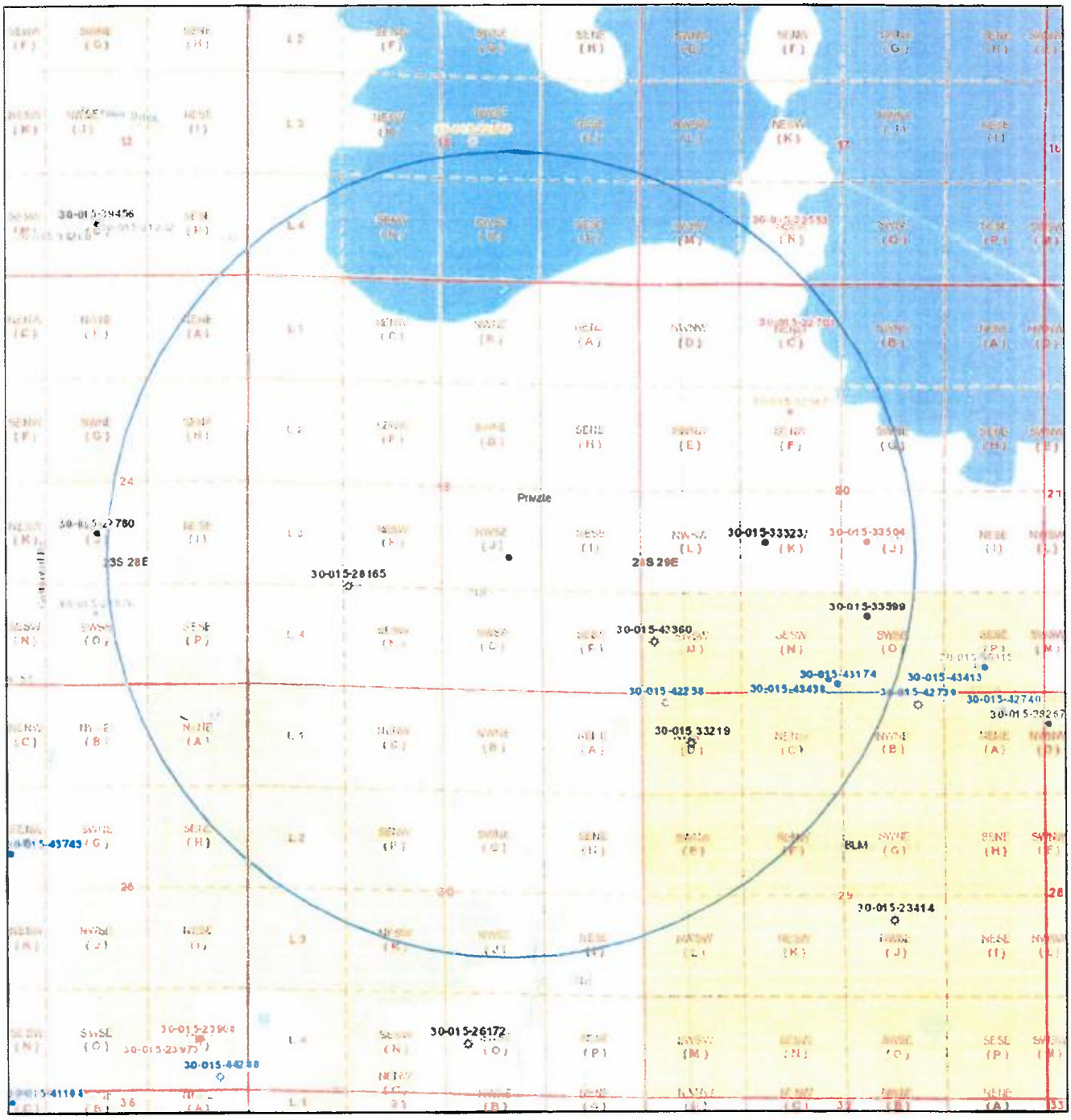
Top of Salt est 620'
Base of Salt est 2532'
DVT @ approx 2600'
Delaware Mtn group est 2724'
Bone Spring est 6500'
Wolfcamp est 9770'
Strawn est 10900'
Atoka est 11880'
Morrow est 12200'
Mississippi Lime est 13700'
Top Siluro-Devonian est 14500'
Montoya est 15700'

Not to Scale

Melanie Wilson
5/21/2018


Mesquite SWD, Inc.
Laguna Salada 19 SWD #1
1752' FSL & 1727' FEL
Section 19, T23S, R29E
Eddy County, New Mexico
Leases Within One Mile Radius
Leases Within Two Mile Radius
LAGUNA SALADO
SO. CULEBRA BLUFF UNIT (OPER.)
CULEBRA BLUFF SO. LAGUNA
LAGUNA SALADO SO. UNI
EXXONMOBIL, (OPER)
LAGUNA GRANDE
Devon Energy
Yates Pet. etal
Chesapeake
Chevron
U.S. Potash Co
Nortex Corp
Pogo Prod.
Permian Res (Enron, etal)

Laguna Salada 19 SWD #1 - Wells in Area of Review



May 29, 2018

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

- Override 1

Well Locations - Small Scale
- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale
- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Pluggec
- CO2, Temporarily Abandoned
- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New

U.S. BLM, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, OCD, BLM

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map: http://nm-emnrd.maps.arcgis.com/apps/webappviewer/ New Mexico Oil Conservation Division

Mesquite SWD, Inc.
Laguna Salado 19 SWD #1
Wells in One Mile Area of Review

API	Operator	Well Name	Well Number	Type	Vertical/ Horizontal	Status	Unit Letter	S	T	R	Footages	Formation	MD	TVD
30-015-28165	DEVON ENERGY PRODUCTION COMPANY,	HARROUN TRUST 19	#001	Gas	Vertical	Active	N	19	23S	29E	1316 FSL, 1320 FWL	Atoka	12200	12200
30-015-22703	CHEVRON U S A INC	TELEDYNE 20 GAS COM	#001	Gas	Vertical	P&A	C	20	23S	29E	660 FNL, 2080 FWL	Delaware	13370	13370
30-015-32987	CHEVRON U S A INC	TELEDYNE 20	#002	Oil	Vertical	TA	F	20	23S	29E	1650 FNL, 1980 FWL	Delaware	6599	6599
30-015-33504	CHEVRON U S A INC	USA TELEDYNE 20	#005	Oil	Vertical	P&A	J	20	23S	29E	1980 FSL, 2310 FEL	Delaware	6850	6850
30-015-33323	BTA OIL PRODUCERS, LLC	TELEDYNE 20	#004	Oil	Vertical	Active	K	20	23S	29E	1980 FSL, 1650 FWL	Delaware	6758	6758
30-015-43360	BTA OIL PRODUCERS, LLC	HARROUN RANCH FEDERAL COM 20702	#002H	Gas	Horizontal	Active	M	20	23S	29E	680 FSL, 180 FWL	Wolfcamp	21090	10839
						BHL	D	17	23S	29E	29 FNL, 363 FWL			
30-015-43174	CIMAREX ENERGY CO. OF COLORADO	LAGUNA GRANDE 29 FEDERAL	#006	Oil	Horizontal	New	N	20	23S	29E	98 FSL, 2562 FWL	Bone Spring	13731	NYD
						BHL	N	29	23S	29E	330 FSL, 1980 FWL			
30-015-43438	BTA OIL PRODUCERS, LLC	HARROUN RANCH FEDERAL COM 20702	#003H	Oil	Horizontal	New	N	20	23S	29E	170 FSL, 2465 FWL	Wolfcamp	13431	NYD
						BHL	C	20	23S	29E	210 FNL, 1900 FWL			
30-015-33599	BTA OIL PRODUCERS, LLC	HARROUN RANCH FEDERAL 20702	#001	Oil	Vertical	P&A	O	20	23S	29E	990 FSL, 2310 FEL	Delaware	13000	13000
30-015-43414	BTA OIL PRODUCERS, LLC	HARROUN RANCH FEDERAL COM 20702	#004H	Oil	Horizontal	New	O	20	23S	29E	160 FSL, 2493 FWL	Wolfcamp	13208	NYD
						BHL	B	17	23S	29E	50 FNL, 1980 FEL			
30-015-42258	CIMAREX ENERGY CO. OF COLORADO	LAGUNA GRANDE 29 FEDERAL	#005H	Gas	Horizontal	New	D	29	23S	29E	140 FNL, 330 FWL	Wolfcamp	13212	NYD
						BHL	M	29	23S	29E	660 FSL, 660 FWL			
30-015-33219	CIMAREX ENERGY CO. OF COLORADO	LAGUNA GRANDE FEDERAL	#004	Gas	Vertical	Active	D	29	23S	29E	660 FNL, 660 FWL	Wolfcamp	12333	12333

No wells within the one-mile Area of Review penetrate the proposed injection interval.

Mesquite SWD, Inc.
Laguna Salada 19 SWD #1
1752' FSL & 1727' FEL
Section 19, T23S, R29E
Eddy County, New Mexico

API Not Issued

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 2,900 psi, or as controlled by depth.

4. Disposal sources will be produced waters that, based upon regional experience, are compatible with known waters in the disposal zone.

5. An analysis of water produced from the Devonian formation is attached. Analysis obtained from Go-Tech website.

C-108 Iten VII.5 - Produced Water Data

Laguna Salada 19 SWD #1

Water Analysis from Injection Zone

Well Name	BELL LAKE UNIT #006	FtgN/S	660S
API	3002508483	FtgE/W	1980E
Lat	32.3282585	County	LEA
Long	-103.507103	State	NM
Section	6	Field	BELL LAKE NORTH
T	23S	Formation	DEVONIAN
R	34E		
Unit	O		

Depth			
LabNo.			
Sample No.			
Sample Source	HEATER TREATER		
Water Type			
Sample Date			
Analysis Date			

ph	7	barium_mgL	
ph temp F		magnesium_mgL	
Specific Gravity		potassium_mgL	
SG Temp F		strontium_mgL	
TDS mgL	71078	manganese_mgL	
TDS mgL 180C		chloride_mgL	42200
alkalinity_as_caco3_mgL		carbonate_mgL	
hardness_as_caco3_mgL		bicarbonate_mgL	500
hardness_mgL		sulfate_mgL	1000
resistivity_ohm_cm		hydroxide_mgL	
resistivity_ohm_cm_temp_F		h2s_mgL	
conductivity		co2_mgL	
conductivity_temp_F		o2_mgL	
sodium_mgL		anionremarks	
calcium_mgL		generalinforemarks	
iron_mgL		CorrectFlag	TRUE

Water analysis from Go-Tech Produced Water Database

Mesquite SWD, Inc.
Laguna Salada 19 SWD #1

API Not Issued

Item VII(a):

Water samples from the regionally area.

Wolfcamp

BAKER HUGHES

Water Analysis

Date: 23-Aug-11

2708 West County Road, Hobbs NM 88240
Phone (575) 392-5556 Fax (575) 392-7307

Analyzed For Brushy Draw 1st 1

Company	Well Name	County	State
	8D	~~Lea~~ Eddy	New Mexico 1-26S-29E

Sample Source	Swab Sample	**Sample #**	1
Formation		**Depth**	

Specific Gravity	1.170	SG @ 60 °F	1.172
pH	6.30	Sulfides	Absent
Temperature (°F)	70	Reducing Agents	

Cations

Sodium (Calc)	in Mg/L	77,982	in PPM	66,520
Calcium	in Mg/L	4,000	in PPM	3,413
Magnesium	in Mg/L	1,200	in PPM	1,024
Soluable Iron (FE2)	in Mg/L	10.0	in PPM	9

Anions

Chlorides	in Mg/L	130,000	in PPM	110,922
Sulfates	in Mg/L	250	in PPM	213
Bicarbonates	in Mg/L	127	in PPM	108
Total Hardness (as CaCO3)	in Mg/L	15,000	in PPM	12,799
Total Dissolved Solids (Calc)	in Mg/L	213,549	in PPM	182,209
Equivalent NaCl Concentration	in Mg/L	182,868	in PPM	156,031

Scaling Tendencies

Calcium Carbonate Index	507,520
Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable	
Calcium Sulfate (Gyp) Index	1,000,000
Below 500,000 Remote / 500,000 - 10,000,00 Possible / Above 10,000,000 Probable	

This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

Remarks RW= 048@70F

Mesquite SWD, Inc. API Not Issued

Laguna Salada 19 SWD #1

Item VII(b) continued):

Sec 22, T25S, R28E

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Bone Spring

Water Analysis Report by Baker Petrolite

Company:		Sales RDT:	33514.1
Region:	PERMIAN BASIN	Account Manager:	TONY HERNANDEZ (575) 910-7135
Area:	ARTESIA, NM	Sample #:	534655
Lease/Platform:	PINOCHLE 'BPN' STATE COM	Analysis ID #:	108795
Entity (or well #):	2 H	Analysis Cost:	$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary	
Sampling Date:	03/10/11
Analysis Date:	03/15/11
Analyst:	SANDRA GOMEZ
TDS (mg/l or g/m3):	184911.1
Density (g/cm3, tonne/m3):	1.113
Anion/Cation Ratio:	1
Carbon Dioxide:	0.50 PPM
Oxygen:	
Comments:	

Analysis of Sample 534655 @ 75 °F

Anions	mg/l	meq/l
Chloride:	108818.0	3061.92
Bicarbonate:	1835.0	34.99
Carbonate:	0.0	0.
Sulfate:	747.0	15.55
Phosphate:		
Borate:		
Silicate:		
Hydrogen Sulfide:		0 PPM
pH at time of sampling:		7
pH at time of analysis:		
pH used in Calculation:		7

Cations	mg/l	meq/l
Sodium:	70875.7	3056.02
Magnesium:	195.0	16.04
Calcium:	844.0	42.12
Strontium:	220.0	5.02
Barium:	0.8	0.01
Iron:	6.5	0.23
Potassium:	869.0	22.22
Aluminum:		
Chromium:		
Copper:		
Lead:		
Manganese:	0.100	0.
Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										CO_2 Press
		Calcite $CaCO_3$		Gypsum $CaSO_4 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		
Temp	Gauge Press.	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	
F	psi											psi
80	0	1.06	198.82	-1.20	0.00	-1.18	0.00	-0.11	0.00	0.56	0.29	1.72
100	0	1.10	208.05	-1.29	0.00	-1.20	0.00	-0.15	0.00	0.35	0.29	2.35
120	0	1.12	224.17	-1.38	0.00	-1.19	0.00	-0.17	0.00	0.15	0.00	3.17
140	0	1.13	243.17	-1.42	0.00	-1.18	0.00	-0.16	0.00	0.00	0.00	4.21

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.
Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

Mesquite SWD, Inc.
Laguna Salada 19 SWD #1 API Not Issued
1752' FSL & 1727' FEL
Section 19, T23S, R29E
Eddy County, New Mexico

Item VIII:

Geologic Formation:	Devonian/Silurian
Estimated Top:	14,500'
Tickness:	1,200'
Lithology:	Limestone w/Interbedded Dolomites

According to the New Mexico Office of the State Engineer's website, there are three fresh water wells within one-mile radius of the proposed SWD. Average depth to fresh water is 13'. Mesquite SWD, Inc. was unable to obtain an analysis of water from this well. An analysis of water from water well C-00500 is attached.

The surface geology of the greater area, including the two-mile radius as shown in Item V above, is Quaternary eolian and piedmont deposits of Holocene to middle Pleistocene age and Permian Castile formation. These are underlain by Permian formation and evaporites.

Item IX:

Formation chemical stimulation may be applied after completion. No other stimulation is currently planned.

Item X:

Logs will be filed with the OCD upon completion of the well. Density-Neutron is planned from surface to TD.

Item XI:

According to the website of the NM Office of the State Engineer, there are three water wells within one mile of the proposed Laguna Salada 19 SWD #1 well. Please note Item VIII discussion above. A water analysis from water well C-00500 in NW/4 Section 24, T23S, R28E is attached, which is not within the Area of Review.

Item XII:

Affirmative statement is attached.

Item XIII:

Proof of Notice is attached.

Mesquite SWD, Inc.
Laguna Salada 19 SWD #1
1752' FSL & 1727' FEL
Section 19-T23S-R29E
Eddy County, NM

New Mexico Office of the State Engineer

Wells with Well Log Information

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

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

(NAD83 UTM in meters)

POD Number	Code	POD Subbasin	County	Source	q q q 64 16 4	Sec	Tws	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
[redacted]		CUB	ED	Shallow	1 2 4	19	23S	29E	592213	3572706	95	04/11/2013	04/13/2013	05/07/2013	77	16	TAYLOR CLINTON E (LD)	1348
[redacted]		C	ED	Shallow	1	19	23S	29E	591531	3573493*	949	05/18/2000	05/19/2000	08/28/2000	174			1348
[redacted]		C	ED	Shallow	4	18	23S	29E	592302	3574291*	1503	05/23/2000	05/24/2000	08/28/2000	17	16		1348

Record Count: 3

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 592172.23 Northing (Y): 3572792.97 Radius: 1610

*UTM location was derived from PLSS - see Help

Mesquite SWD, Inc.
Laguna Salada 19 SWD #1

Water Analysis from Water Well C-00500
Section 24, T23S, R28E, Eddy County, NM

Analytical Report
Lab Order 1705094
Date Reported: 5/10/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Whitenton Group Inc
Project: Oxy/Centurion
Lab ID: 1705094-002 **Matrix:** AQUEOUS

Client Sample ID: Mosaic Carrasco Well
Collection Date: 5/1/2017 4:20:00 PM
Received Date: 5/2/2017 9:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Fluoride	0.88	0.50		mg/L	5	5/3/2017 1:54:17 AM	A42488
Chloride	510	25	*	mg/L	50	5/3/2017 11:04:13 PM	R42532
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	5/3/2017 2:06:42 AM	A42488
Nitrogen, Nitrate (As N)	10	0.50	*	mg/L	5	5/3/2017 1:54:17 AM	A42488
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	5/3/2017 2:06:42 AM	A42488
Sulfate	520	25	*	mg/L	50	5/3/2017 11:04:13 PM	R42532
SM2510B: SPECIFIC CONDUCTANCE						Analyst:	**JRR**
Conductivity	8100	1.0		µmhos/cm	1	5/4/2017 2:49:37 PM	R42568
SM2320B: ALKALINITY						Analyst:	**JRR**
Bicarbonate (As CaCO3)	208.2	20.00		mg/L CaCO3	1	5/4/2017 2:49:37 PM	R42568
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	5/4/2017 2:49:37 PM	R42568
Total Alkalinity (as CaCO3)	208.2	20.00		mg/L CaCO3	1	5/4/2017 2:49:37 PM	R42568
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	**KS**
Total Dissolved Solids	6570	20.0	*	mg/L	1	5/5/2017 5:44:00 PM	31567
SM4500-H+B: PH						Analyst:	**JRR**
pH	7.31		H	pH units	1	5/4/2017 2:49:37 PM	R42568
EPA METHOD 6010B: DISSOLVED METALS						Analyst:	**MED**
Calcium	760	10		mg/L	10	5/4/2017 9:20:14 AM	A42530
Magnesium	250	10		mg/L	10	5/4/2017 9:20:14 AM	A42530
Potassium	7.0	1.0		mg/L	1	5/4/2017 9:13:56 AM	A42530
Sodium	1000	50		mg/L	50	5/8/2017 12:05:01 PM	A42604

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Form C-108
Affirmative Statement
Mesquite SWD, Inc.
Laguna Salada 19 SWD #1
Section 19, T23S, R29E, NMPM
Eddy County, New Mexico

Available geologic and engineering data has been examined and no evidence of open faults or hydrological connection between the injection zone and any underground sources of drinking water has been found.

7/24/18

Riley Neatherlin
Operations Manager
Mesquite SWD, Inc.

Date

Mesquite SWD, Inc. API Not Issued
Laguna Salada 19 SWD #1
1752' FSL & 1727' FEL
Section 19, T23S, R29E
Eddy County, New Mexico

Item XIII: Proof of Notice

Surface Owner:		**FedEx Tracking No.**
Mosaic Potash Carlsbad NM 1361 Potash Mines Road Carlsbad, NM 88220		7724 0353 8381

Offset Operators:

Chevron USA, Inc 6301 Deauville Blvd. Midland, TX 79706	Sections 17, 18 and 20, T23S, R29E	7723 9957 9455
Devon Energy Production Company, LP 333 W Sheridan Ave. Oklahoma City, OK 73102	Sections 19 and 30, T23S, R29E	7723 9955 7895
BTA Oil Producers, LLC 104 South Pecos Midland, TX 79701	Section 20, T23S, R29E	7724 0355 5178
Cimarex Energy Co. of Colorado 202 S Cheyenne Ave., Suite 1000 Tulsa, OK 74102	Section 20 and 29, T23S, R29E	7724 0357 1244
MPC Permian Co. 5400 LBJ Freeway, Suite 1500 Dallas, TX 75240-1017	Section 24, T23S, R28E	7724 0358 4737
Mewbourne Oil Company 4801 Business Park Blvd. Hobbs, NM 88240	Section 25, T23S, R28E	7724 0359 9567
OXY USA, Inc. 5 Greenway Plaza Houston, TX 77046	Section 13, T23S, R28E	7728 2094 0467
Echo Production, Inc. 616 5th Street Graham, TX 76450	Section 13, T23S, R28E	7728 2093 7438

Affidavit of Publication

No. 24687

State of New Mexico

County of Eddy:

Danny Scott

being duly sworn sayes that she is the

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	May 27, 2018
Second Publication	
Third Publication	
Fourth Publication	
Fifth Publication	
Sixth Publication	
Seventh Publication	

Subscribed and sworn before me this

29th day of May 2018

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 Riley Neatherlin, PO Box 1479, Carlsbad, NM 88221-1479, 575-887-0980, is seeking administrative approval from the New Mexico Oil Conservation Division to drill the Laguna Salada 19 SWD #1, API not issued, located 1752' FSL & 1727' FEL, Section 19, T23S, R29E, Eddy County, NM, approximately 4 miles east of Loving, NM, for commercial produced water disposal. The proposed disposal interval is the Siluro-Devonian formation in open-hole interval approximately 14,563' to 15,700', at a maximum pressure of 3000 psi and a maximum rate of 40,000 BWPD. Parties with questions regarding this proposal may contact Riley Neatherlin at the address or phone number above. Parties must file objections or requests for hearing within 15 days of this publication to the New Mexico Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505.

Published in the Artesia Daily Press, Artesia, N.M., May 27, 2018 Legal No. 24687.