

"1282" PTGW

DATE IN: 6.2.11	SUSPENSE: 6/17/11	ENGINEER: W.V.I.T.	LOGGED IN: 6.2.11	TYPE: SWD	APP NO.: 1115357768
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



Mearl Bourne  
 14744

Red Hills SWD #1

**ADMINISTRATIVE APPLICATION CHECKLIST** 30-025-

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

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

16-265-32E

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A].

- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR

[D] Other: Specify \_\_\_\_\_

Lea

SWD 1282

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or  Does Not Apply

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

5100-6300'  
 1050 psi

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **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.

<u>Steven J. Smith</u>	<u>[Signature]</u>	<u>Sr. Landman</u>	<u>5-31-11</u>
Print or Type Name	Signature	Title	Date
		<u>ssmith@mearlbourne.com</u>	
		e-mail Address	

# MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020  
MIDLAND, TEXAS 79701

(432) 682-3715  
FAX (432) 685-4170

May 19, 2011

RECEIVED

2011 MAY 13 10 03

Certified Mail-Return Receipt No. 7009 2250 0000 0618 1823

New Mexico Oil Conservation Division  
Attn: Mrs. Jami Bailey, Director  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Re: C-108 Application for SWD Well  
Red Hills West SWD #1  
SE/4SE/4 Section 16, T-26-S, R-32-E  
Lea County, New Mexico

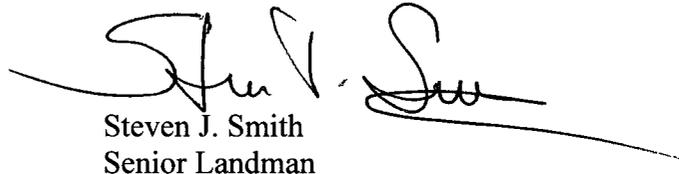
Dear Mrs. Bailey:

Enclosed are the original and one copy of Mewbourne Oil Company's C-108 application for administrative approval of its proposed Red Hills West SWD #1. This will be a "new drill" salt water disposal well to be located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 16, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico.

Please contact the undersigned if there are any questions or concerns. My phone number is (432) 682-3715 and my email address is [ssmith@mewbourne.com](mailto:ssmith@mewbourne.com).

Sincerely,

MEWBOURNE OIL COMPANY

  
Steven J. Smith  
Senior Landman

Enclosure

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance  Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval?  Yes \_\_\_\_\_ No
- II. OPERATOR: **Mewbourne Oil Company**  
ADDRESS: **500 W. Texas Suite 1020**  
**Midland, TX 79701**  
CONTACT PARTY: **Drew Robison** PHONE: **432-682-3715**
- 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  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: **Drew Robison** TITLE: **Reservoir Engineer**

SIGNATURE:  DATE: **5/18/11**

E-MAIL ADDRESS: **drobison@mewbourne.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.**

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**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: **Mewbourne Oil Company**WELL NAME & NUMBER: **Red Hills West SWD #1**

WELL LOCATION: 700' FSL & 690' FEL                      P                      16                      26S                      32E  
 FOOTAGE LOCATION                      UNIT LETTER                      SECTION                      TOWNSHIP                      RANGE

WELLBORE SCHEMATIC ( See Attached)WELL CONSTRUCTION DATASurface CasingHole Size: **12 ¼"**Casing Size: **9 ⅝" @ 1025**Cement with: **373 sx**or 640 ft<sup>3</sup>Top of Cement: **Surface**Method Determined: **Visual**Production CasingHole Size: **8 ¾"**Casing Size: **7" @ 6300'**Cement with: **630 sx**or 1180 ft<sup>3</sup>Top of Cement: **Surface**Method Determined: **Visual**Total Depth: **6300'**Injection Interval**Perforations: 5100 – 6300 ←**

**INJECTION WELL DATA SHEET**

Tubing Size: 2 7/8" ←

Lining Material: **TK99 IPC**

Type of Packer: **Arrowset 1X (nickel plated)**

Packer Setting Depth: **5,000 feet**

Other Type of Tubing/Casing Seal (if applicable): **None**

**Additional Data**

1. Is this a new well drilled for injection? **Yes**

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

2. Name of the Injection Formation: **Lower Bell Canyon / Upper Cherry Canyon (Delaware)**

3. Name of Field or Pool (if applicable): **Mason East Delaware** ✓

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. **No**

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Overlying producing zone – **Ramsey and Olds Sands (Upper Bell Canyon, Delaware) 4468-4574'**

Underlying producing zone – **Bone Spring @ 8550 (2250' below proposed TD)**

# Proposed SWD Wellbore Schematic

Red Hills West SWD #1

Mewbourne Oil Company

16-26S-32E

700' FSL & 690' FEL

## Surface Csg

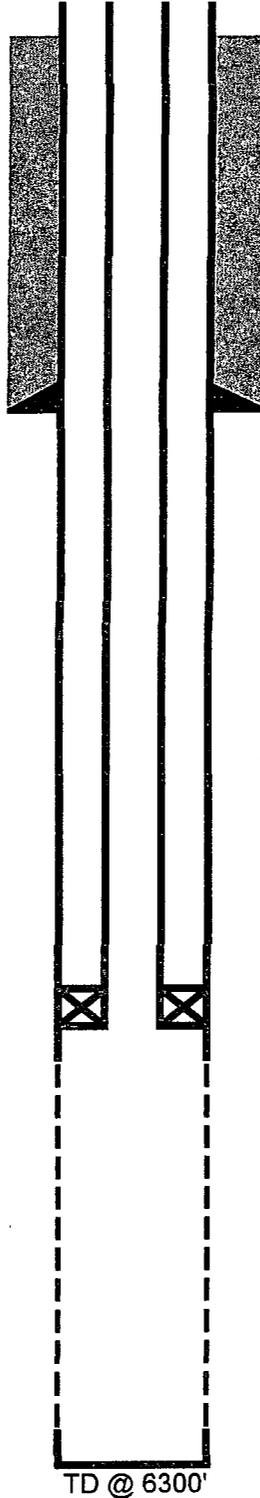
12-1/4" Hole

9-5/8" csg

Set @ 1025'

Cmt w/ 373 sx

Circulate to surface



## Tubing

2-7/8" TK99 IPC to 5000'

Arrowset 1X Packer (nickel plated)

**Perforate 5100-6250**

## Production Csg

8-3/4" Hole

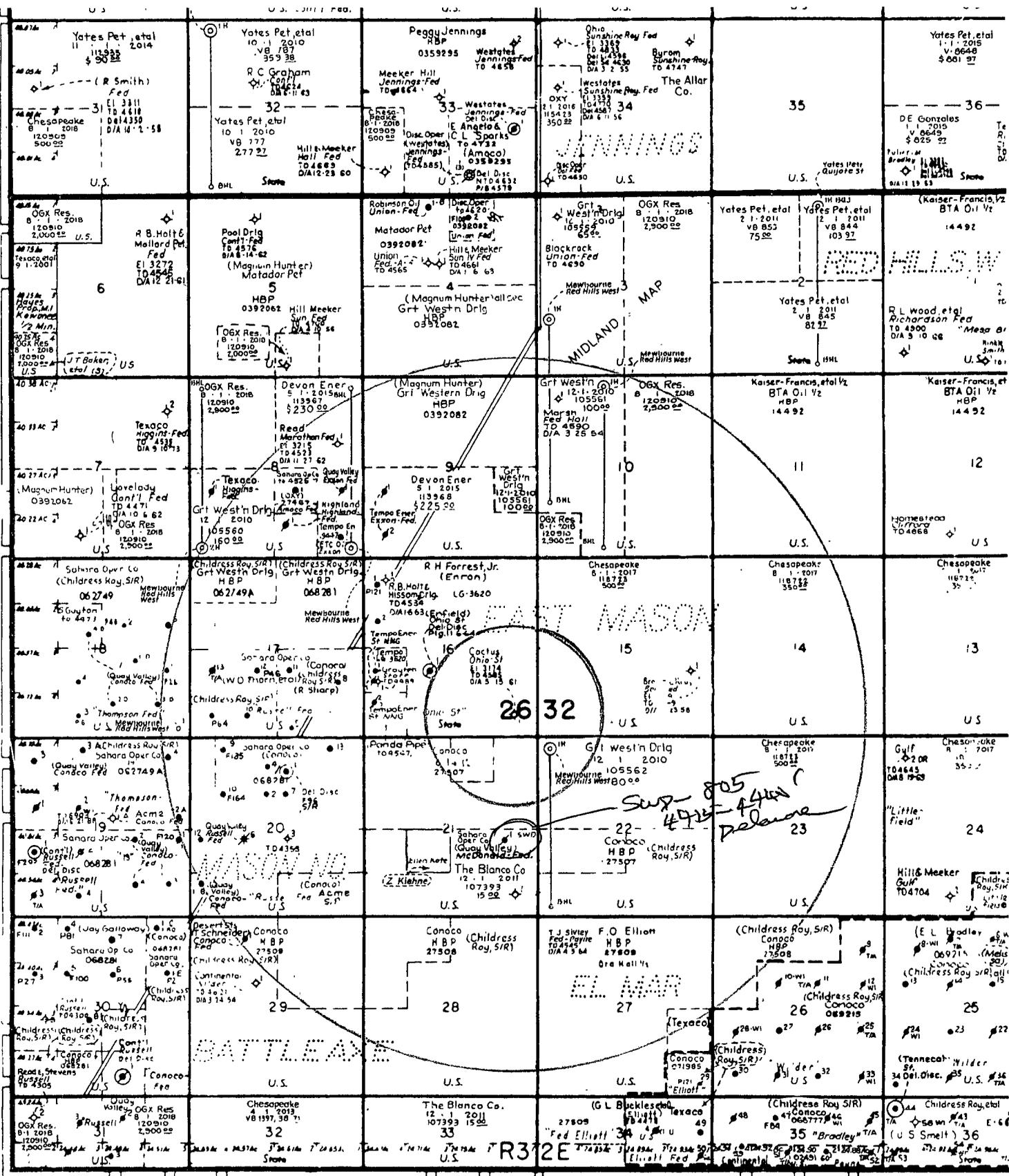
7" csg

Set @ 6300'

Cmt w/ 630 sx

Circulate cmt to surface

TD @ 6300'



# LOVING County

## LEGEND

- CO. Wells Not Shown
- ⊙ Wildcat Below 5000 or Discovery
- Location
- Abandoned Producer
- Complete — Producing Oil
- Completed — Producing Gas
- ◇ Dry & Abandoned
- - - Fee Owner — Slant Lettering
- ≡≡≡ Lease Owner — Vertical Lettering



**Application for Authorization to Inject (C108)**

Mewbourne Oil Company

Red Hills West SWD #1

Tabulation of Wells Within the Area of Review Penetrating the Injection zone  
As of May, 2011

Well Name	API#	Operator	Surface Location				Drill Type	Spud Date	Total Depth (feet)	Csg Size	Depth (ft)	Cmt (sx)	Csg Size	Depth (ft)	Cmt (sx)	Comp Date	Perfs (feet)	Formation	Status
			Footage	Sec	TWN	RGE													
Red Hills West 22 #1	3002539901	Mewbourne Oil	380 FNL & 380 FWL	22	26S	32E	HZ	11/18/10	13592	13-3/8	802	600	9-5/8"	4405	1400	2/26/11	9664-13540	Bone Spring	Prod.
										7"	9648	800	4-1/2" open-hole liner 9439-13566						

*BT TO CC from*

**Current Wellbore Schematic**  
**Red Hills West 22 Fed Com #1H**  
 Mewbourne Oil Company  
 22-26S-32E  
 380' FNL & 380' FWL  
 30-025-39901

*Red Hills*

**Spud Date: 11/18/10**

**Surface Csg**

17-1/2" Hole  
 13-3/8" 48# H40  
 Set @ 802'  
 Cmt w/ 600 sx  
 Circulated to surface

**Intermediate Csg**

12-1/4" Hole  
 9-5/8" 36# & 40# J55  
 Set @ 802' *4405*  
 Cmt w/ 1400 sx  
 Circulated to surface

**Date**

11/18/10 Spud Well  
 2/17/11 Frac w/ 2342kgals & 2114k# sd (20 stages)

**Port Depths:**

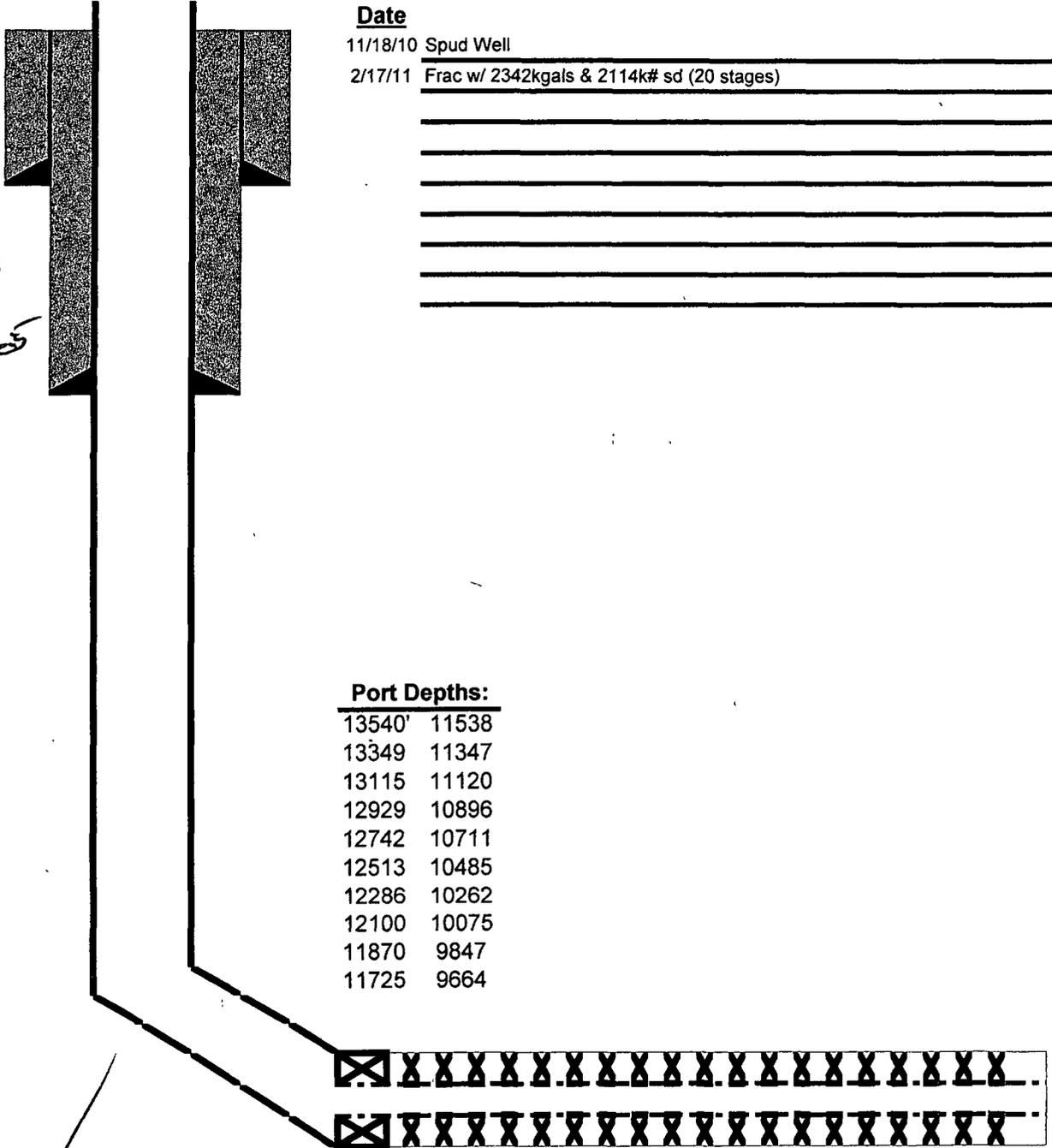
13540'	11538
13349	11347
13115	11120
12929	10896
12742	10711
12513	10485
12286	10262
12100	10075
11870	9847
11725	9664

**Intermediate Csg**

8-3/4" Hole  
 7" 26# P110  
 Set @ 9648' MD  
 Cmt w/ 800 sx  
 Est TOC @ 4000'

**Production Liner**

6-1/8" Hole  
 Top of liner @ 9439'  
 4-1/2" 11.6# P110  
 Set @ 13566' MD  
 Open-holes packers & ports (20)



**Red Hills West SWD #1 C-108**  
Additional Details

- VII.** 1. Proposed average rate of 3000 bwpd and maximum rate of 6,000 bwpd.
2. Closed system.
3. Proposed average injection pressure is unknown and the maximum injection pressure is 1050 psig (0.2 psi/ft x 5250 ft).
4. Injection fluid will be formation water from the Mewbourne Oil Company operated Bone Spring producing wells in the area. See attached water analysis for the Bone Spring formation.
5. We will be injecting into the ~~Lower Bell Canyon and Upper Cherry Canyon~~ of the Delaware. See attached water analysis for the Delaware formation in the area. The only productive Delaware interval in the area is the Upper Bell Canyon, specifically the Ramsey and Olds Sandstones (4468-4574).
- VIII.** 1. The proposed injection interval is within the Delaware formation which is a porous sandstone from 4468' – 8550'. However, the well will only be perforated between 5100-6300 which is the Lower Bell Canyon and Upper Cherry Canyon.
2. The underground fresh water aquifers (unnamed) are present at shallow depths down to about 300'. There are no known fresh water intervals underlying the injecting formation.
- IX.** The proposed stimulation is a cased-hole acid treatment of 10000 gallons of 7.5% HCL. If necessary, the well will be fracture stimulated.
- X.** All logs will be filed after the well is drilled
- XI.** See attachment for two water wells located at approximately 1945' FSL & 1405' FWL of section 21-T26S-R32E. This is approximately 5140' from the proposed location.
- XII.** Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting between the proposed disposal zone and any underground sources of drinking water.
- XIII.** See attached Proof of Notice

## Red Hills West SWD Proposal

### Geologic Summary:

Please find attached the Red Hills West Delaware Structure Map, the Red Hills West Delaware Production Map, and cross-section Red Hills XWDW Y-Y'. The proposed SWD well is located in section 16, T26S/R32E in Lea County, New Mexico. This Geologic evaluation includes all of T26S/R32E in the interval from the top of the Delaware Bell Canyon to the top of the Lower Cherry Canyon. The Upper Delaware Bell Canyon sands known as the "Ramsey" and "Olds" sands are the only zones that have been found productive in this township and are noted on Xsec Red Hills XWDW Y-Y'. There has been no other Delaware production in this township.

The Ramsey and Olds Sands are located within the top 200 feet of the Delaware Bell Canyon Formation. They are from 4468' to 4574' in the Mewbourne Red Hills "22" Fed Com #1. No Delaware production has been found below these sands.

The interval between the productive sands and the top of the proposed water disposal zone is about 525 feet thick and has nine thin shales that are very continuous. The gross thickness along with the interbedded shales should act as a good upper confinement between the disposal interval and the Upper Bell Canyon sands.

The interval identified for water disposal is from 5100' to 6300' (noted on Xsec Y-Y') in the Mewbourne Red Hills West "22" Fed com #1. This well is located just 1510 feet southeast of the proposed location for water disposal. This interval includes the Lower Bell Canyon and the Upper Cherry Canyon and did not have any mudlog shows when drilled. Also, water saturation calculations indicate that this interval is wet and non-productive. The interval is composed of non-productive sandstones that have good porosity and permeability with numerous thin shales and carbonates that are very continuous in the area. ✓

The proposed location for SWD is more than ½ mile away from any Delaware production. All of the Delaware production in the township is more than 500 feet vertically removed above the top of the proposed SWD interval. The most recent penetration of the proposed SWD interval is only 1510 feet away from the proposed SWD location and did not have any mudlog shows in the proposed SWD interval and calculates wet and non-productive. For these reasons, this interval appears have no potential for oil or gas production at the proposed location and will be a good interval for salt water disposal.

Roger Townsend  
Mewbourne Geologist

Combined



**DownHole SAT(tm)**  
CHEMISTRY OF WATER SOURCES MIXED

- 1) MEWBOURNE OIL COMPA    2) MEWBOURNE OIL COMPA  
3) MEWBOURNE OIL COMPA

Report Date: 05-05-2011

	1	2	3
	% BY WEIGHT		
<b>CATIONS</b>	<b>33.33</b>	<b>33.33</b>	<b>33.33</b>
Calcium(as Ca)	2490	689.00	2347
Magnesium(as Mg)	730.00	117.00	3546
Barium(as Ba)	0.900	1.66	1.70
Strontium(as Sr)	205.00	238.00	900.00
Sodium(as Na)	61500	68000	81390
Potassium(as K)	1438	1290	1323
Lithium(as Li)	0.00	0.00	0.00
Iron(as Fe)	110.00	65.00	6.87
Ammonia(as NH <sub>3</sub> )	0.00	0.00	0.00
Aluminum(as Al)	0.00	0.00	0.00
Boron(as B)	0.00	0.00	0.00
Manganese (as Mn)	1.08	0.960	28.00
Zinc (as Zn)	0.00	0.00	0.00
Lead (as Pb)	0.00	0.00	0.00
<b>ANIONS</b>			
Chloride(as Cl)	104000	106000	145300
Sulfate(as SO <sub>4</sub> )	1750	1200	500.00
Bromine (as Br)	0.00	0.00	0.00
Dissolved CO <sub>2</sub>	0.3	0.3	22.6
Bicarbonate	2416.0	2135.0	85.0
Carbonate	0.0	0.0	0.0
Silica(as SiO <sub>2</sub> )	0.00	0.00	0.00
Phosphate(as PO <sub>4</sub> )	0.00	0.00	0.00
H <sub>2</sub> S(as H <sub>2</sub> S)	3.06	3.04	2.88
Fluoride(as F)	0.00	0.00	0.00
Nitrate(as NO <sub>3</sub> )	0.00	0.00	0.00
<b>PARAMETERS</b>			
pH	6.70	6.50	5.00
Temperature(°F)	100.00	100.00	100.00
Pressure(atm)	14.70	14.70	14.70
Density(g/mL)	1.11	1.12	1.14
Calculated TDS	174372	179504	235410

1. Red Hills 8<sup>#</sup> 1H (Auntan)  
2. Red Hills 22<sup>#</sup> 1H (Auntan)  
3. Russell Fed 17 (Delaware)

Combined



### DownHole SAT(tm)

#### DEPOSITION INDICATORS OF SOURCE WATERS MIXED

- 1) MEWBOURNE OIL COMPA    2) MEWBOURNE OIL COMPA
- 3) MEWBOURNE OIL COMPA

Report Date: 05-05-2011

SATURATION LEVEL	% BY WEIGHT		
	1	2	3
	<b>33.33</b>	<b>33.33</b>	<b>33.33</b>
Calcite	14.24	2.80	0.00756
Aragonite	12.07	2.37	0.00640
Witherite	< 0.001	< 0.001	< 0.001
Strontianite	1.04	0.848	0.00129
Magnesite	5.63	0.645	0.0179
Anhydrite	0.374	0.0881	0.0753
Gypsum	0.432	0.101	0.0792
Barite	2.06	3.22	0.419
Celestite	0.457	0.448	0.216
Calcium phosphate	0.00	0.00	0.00
Hydroxyapatite	0.00	0.00	0.00
Fluorite	0.00	0.00	0.00
Silica	0.00	0.00	0.00
Brucite	< 0.001	< 0.001	< 0.001
Mag. silicate	0.00	0.00	0.00
Ferric hydroxide	< 0.001	< 0.001	< 0.001
Siderite	597.55	249.88	0.0110
Strengite	0.00	0.00	0.00
Halite	0.0998	0.113	0.234
Thenardite	< 0.001	< 0.001	< 0.001
Iron sulfide	28.64	8.67	0.00154

1 RH 8#1H (Auntan)  
 2 RH 22#1H (Auntan)  
 3 Russell Fed 17 (Delaware)

#### SIMPLE INDICES

Langelier	1.67	0.865	-1.32
Ryznar	3.36	4.77	7.64
Oddo-Tomson	0.594	-0.213	-2.34
Stiff-Davis	1.39	0.600	-1.09
Puckorius	0.822	2.12	5.58
Larson-Skold	83.11	95.79	3375

**BJ Chemical Services - Midland Analytical Laboratory**  
**P.O. Box 61427, Midland, Texas 79711**

Combined



## DownHole SAT(tm)

### MIXED WATER CHEMISTRY

- 1) MEWBOURNE OIL COMPA    2) MEWBOURNE OIL COMPA  
3) MEWBOURNE OIL COMPA

Report Date: 05-05-2011

#### CATIONS

Calcium (as Ca)	1842
Magnesium (as Mg)	1464
Barium (as Ba)	1.42
Strontium (as Sr)	447.67
Sodium (as Na)	70297
Potassium (as K)	1350
Lithium (as Mg)	0.00
Ammonia (as NH <sub>3</sub> )	0.00
Aluminum (as Al)	0.00
Iron (as Fe)	60.62
Boron (as B)	0.00
Manganese (as Mn)	10.01
Zinc (as Zn)	0.00
Lead (as Pb)	0.00

#### ANIONS

Chloride (as Cl)	118433
Sulfate (as SO <sub>4</sub> )	1150
Bromine (as Br)	0.00
Dissolved CO <sub>2</sub> (as CO <sub>2</sub> )	7.73
Bicarbonate (as HCO <sub>3</sub> )	1361
Carbonate (as CO <sub>3</sub> )	11.76
Silica (as SiO <sub>2</sub> )	0.00
H <sub>2</sub> S (as H <sub>2</sub> S)	2.99
Phosphate (as PO <sub>4</sub> )	0.00
Nitrate (as NO <sub>3</sub> )	0.00
Fluoride (as F)	0.00

#### PARAMETERS

Calculated T.D.S.	196567
Temperature (°F)	100.00
Density(g/mL)	1.12
Pressure(atm)	14.70
Calculated T.D.S.	196567
Molar Conductivity	17385

#### CORROSION RATE PREDICTION

CO <sub>2</sub> - H <sub>2</sub> S Rate(mpy)	0.00
----------------------------------------------	------

BJ Chemical Services - Midland Analytical Laboratory  
P.O. Box 61427, Midland, Texas 79711

Combined



## DownHole SAT(tm)

### MIXED WATER DEPOSITION POTENTIAL INDICATORS

- 1) MEWBOURNE OIL COMPA      2) MEWBOURNE OIL COMPA  
3) MEWBOURNE OIL COMPA

Report Date: 05-05-2011

#### SATURATION LEVEL

Calcite (CaCO <sub>3</sub> )	3.16
Aragonite (CaCO <sub>3</sub> )	2.68
Witherite (BaCO <sub>3</sub> )	< 0.001
Strontianite (SrCO <sub>3</sub> )	0.533
Magnesite (MgCO <sub>3</sub> )	3.56
Anhydrite (CaSO <sub>4</sub> )	0.178
Gypsum (CaSO <sub>4</sub> *2H <sub>2</sub> O)	0.199
Barite (BaSO <sub>4</sub> )	1.64
Celestite (SrSO <sub>4</sub> )	0.503
Fluorite (CaF <sub>2</sub> )	0.00
Calcium phosphate	0.00
Hydroxyapatite	0.00
Silica (SiO <sub>2</sub> )	0.00
Brucite (Mg(OH) <sub>2</sub> )	< 0.001
Magnesium silicate	0.00
Iron hydroxide (Fe(OH) <sub>3</sub> )	< 0.001
Strengite (FePO <sub>4</sub> *2H <sub>2</sub> O)	0.00
Siderite (FeCO <sub>3</sub> )	79.02
Halite (NaCl)	0.140
Thenardite (Na <sub>2</sub> SO <sub>4</sub> )	< 0.001
Iron sulfide (FeS)	4.62

#### MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite (CaCO <sub>3</sub> )	0.105
Aragonite (CaCO <sub>3</sub> )	0.0958
Witherite (BaCO <sub>3</sub> )	-28.09
Strontianite (SrCO <sub>3</sub> )	-0.197
Magnesite (MgCO <sub>3</sub> )	0.0926
Anhydrite (CaSO <sub>4</sub> )	-633.16
Gypsum (CaSO <sub>4</sub> *2H <sub>2</sub> O)	-641.13
Barite (BaSO <sub>4</sub> )	0.328
Celestite (SrSO <sub>4</sub> )	-119.65
Fluorite (CaF <sub>2</sub> )	-5.92
Calcium phosphate	>-0.001
Hydroxyapatite	-334.88
Silica (SiO <sub>2</sub> )	-41.28
Brucite (Mg(OH) <sub>2</sub> )	-0.256
Magnesium silicate	-107.46
Iron hydroxide (Fe(OH) <sub>3</sub> )	< 0.001
Strengite (FePO <sub>4</sub> *2H <sub>2</sub> O)	>-0.001
Siderite (FeCO <sub>3</sub> )	0.175
Halite (NaCl)	-103740
Thenardite (Na <sub>2</sub> SO <sub>4</sub> )	-85816
Iron sulfide (FeS)	0.430

#### SIMPLE INDICES

Langelier	1.07
Ryznar	4.22
Puckorius	1.64
Larson-Skold Index	148.23
Stiff Davis Index	0.957
Oddo-Tomson	-0.00539

#### BOUND IONS

Calcium	1842
Barium	1.42
Carbonate	11.76
Phosphate	0.00
Sulfate	1150

#### TOTAL

#### FREE

1643
1.42
0.263
0.00
395.19

#### OPERATING CONDITIONS

Temperature (°F)	100.00
Time(secs)	1.00

BJ Chemical Services - Midland Analytical Laboratory  
P.O. Box 61427, Midland, Texas 79711

Analytical Laboratory Report for:  
**MEWBOURNE OIL  
COMPANY**

Account Representative:  
Mossman, Willis



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## Production Water Analysis

Listed below please find water analysis report from: ██████████; Russell Fed 17

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Lab Test Number	Sample Date
2011111305	05/03/2011

[<br>]

Specific Gravity: 1.142

TDS: 218188

pH: 5.00

*Delaware*

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Cations:	mg/L	as:
Calcium	2347	(Ca <sup>++</sup> )
Magnesium	3546	(Mg <sup>++</sup> )
Sodium	64150	(Na <sup>+</sup> )
Iron	6.87	(Fe <sup>++</sup> )
Potassium	1323.0	(K <sup>+</sup> )
Barium	1.70	(Ba <sup>++</sup> )
Strontium	900.00	(Sr <sup>++</sup> )
Manganese	28.00	(Mn <sup>++</sup> )
Anions:	mg/L	as:
Bicarbonate	85	(HCO <sub>3</sub> <sup>-</sup> )
Sulfate	500	(SO <sub>4</sub> <sup>=</sup> )
Chloride	145300	(Cl)
Gases:		
Carbon Dioxide	150	(CO <sub>2</sub> )
Hydrogen Sulfide	0.0	(H <sub>2</sub> S)

Russel Fed 17  
Delaware

Analytical Laboratory Report for:  
**MEWBOURNE OIL  
COMPANY**

Account Representative:  
Mossman, Willis



**DownHole SAT™ Scale Prediction @ 100 deg. F**

[<br>]

Lab Test Number	Sample Date	Location
2011111305	05/03/2011	Russel Fed 17
Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)
Calcite (CaCO3)	0.01	-
Strontianite (SrCO3)	0.00	-0.07
Anhydrite (CaSO4)	0.08	-0.64
Gypsum (CaSO4*2H2O)	0.08	-1427.49
Barite (BaSO4)	0.42	-1541.08
Celestite (SrSO4)	0.22	-3.90
Siderite (FeCO3)	0.01	-501.39
Halite (NaCl)	0.23	-0.06
Iron sulfide (FeS)	0.00	-223502.44
Calcite (CaCO3)	0.01	-9.96
Strontianite (SrCO3)	0.00	-0.07
Anhydrite (CaSO4)	0.08	-0.64
Gypsum (CaSO4*2H2O)	0.08	-1427.49
Barite (BaSO4)	0.42	-1541.08
Celestite (SrSO4)	0.22	-3.90
Siderite (FeCO3)	0.01	-501.39
Halite (NaCl)	0.23	-0.06
Iron sulfide (FeS)	0.00	-223502.44
		-9.96

**Interpretation of DHSat Results:**

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) to positive (precipitating) values. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.

Analytical Laboratory Report for:  
**MEWBOURNE OIL  
COMPANY**

Account Representative:  
Mossman, Willis



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## Production Water Analysis

Listed below please find water analysis report from: Red Hills 22 Federal, 1

Lab Test Number	Sample Date	
2011111304	05/03/2011	
[ ]		
Specific Gravity:	1.117	
TDS:	179737	
pH:	6.50	
<b>Cations:</b>	<b>mg/L</b>	<b>as:</b>
Calcium	689	(Ca <sup>++</sup> )
Magnesium	117	(Mg <sup>++</sup> )
Sodium	68000	(Na <sup>+</sup> )
Iron	65.00	(Fe <sup>++</sup> )
Potassium	1290.0	(K <sup>+</sup> )
Barium	1.66	(Ba <sup>++</sup> )
Strontium	238.00	(Sr <sup>++</sup> )
Manganese	0.96	(Mn <sup>++</sup> )
<b>Anions:</b>	<b>mg/L</b>	<b>as:</b>
Bicarbonate	2135	(HCO <sub>3</sub> <sup>-</sup> )
Sulfate	1200	(SO <sub>4</sub> <sup>=</sup> )
Chloride	106000	(Cl <sup>-</sup> )
<b>Gases:</b>		
Carbon Dioxide	250	(CO <sub>2</sub> )
Hydrogen Sulfide	0.0	(H <sub>2</sub> S)

Red Hills 22#1H

Analytical Laboratory Report for:  
**MEWBOURNE OIL  
COMPANY**

Account Representative:  
Mossman, Willis



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**DownHole SAT<sup>TM</sup> Scale Prediction @ 100 deg. F**

[<br>]

Lab Test Number	Sample Date	Location
2011111304	05/03/2011	1
Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)
Calcite (CaCO <sub>3</sub> )	2.80	0.81
Strontianite (SrCO <sub>3</sub> )	0.85	-0.33
Anhydrite (CaSO <sub>4</sub> )	0.09	-2984.15
Gypsum (CaSO <sub>4</sub> *2H <sub>2</sub> O)	0.10	-3062.40
Barite (BaSO <sub>4</sub> )	3.22	1.94
Celestite (SrSO <sub>4</sub> )	0.45	-354.38
Siderite (FeCO <sub>3</sub> )	250.14	1.45
Halite (NaCl)	0.11	-329277.63
Iron sulfide (FeS)	0.00	-0.22

**Interpretation of DHSat Results:**

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) to positive (precipitating) values. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.

Analytical Laboratory Report for:  
**MEWBOURNE OIL  
COMPANY**

Account Representative:  
Mossman, Willis



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## Production Water Analysis

Listed below please find water analysis report from: Red Hills 8 Federal, 1H

Lab Test Number	Sample Date	
2011111303	05/03/2011	
[ ]		
Specific Gravity:	1.114	
TDS:	174641	
pH:	6.70	
Cations:	mg/L	as:
Calcium	2490	(Ca <sup>++</sup> )
Magnesium	730	(Mg <sup>++</sup> )
Sodium	61500	(Na <sup>+</sup> )
Iron	110.00	(Fe <sup>++</sup> )
Potassium	1438.0	(K <sup>+</sup> )
Barium	0.90	(Ba <sup>++</sup> )
Strontium	205.00	(Sr <sup>++</sup> )
Manganese	1.08	(Mn <sup>++</sup> )
Anions:	mg/L	as:
Bicarbonate	2416	(HCO <sub>3</sub> <sup>-</sup> )
Sulfate	1750	(SO <sub>4</sub> <sup>=</sup> )
Chloride	104000	(Cl)
Gases:		
Carbon Dioxide	270	(CO <sub>2</sub> )
Hydrogen Sulfide	0.0	(H <sub>2</sub> S)

Red Hills 8#1H

Analytical Laboratory Report for:  
**MEWBOURNE OIL  
COMPANY**

Account Representative:  
Mossman, Willis



---

**DownHole SAT<sup>TM</sup> Scale Prediction @ 100 deg. F**

[<br>]

Lab Test Number	Sample Date	Location
2011111303	05/03/2011	1H
Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)
Calcite (CaCO <sub>3</sub> )	14.26	1.66
Strontianite (SrCO <sub>3</sub> )	1.04	0.09
Anhydrite (CaSO <sub>4</sub> )	0.37	-1280.31
Gypsum (CaSO <sub>4</sub> *2H <sub>2</sub> O)	0.43	-1168.76
Barite (BaSO <sub>4</sub> )	2.06	0.79
Celestite (SrSO <sub>4</sub> )	0.46	-328.97
Siderite (FeCO <sub>3</sub> )	598.24	2.06
Halite (NaCl)	0.10	-341007.44
Iron sulfide (FeS)	0.00	-0.08

**Interpretation of DHSat Results:**

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) to positive (precipitating) values. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.



# Water Analysis

Date: 13-May-11

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

*Freshwater well #1  
 21K-265-32E*

## Analyzed For

Company	Well Name	County	State
Mewbourne	<del>Red Hills West #1</del>	Lea	New Mexico

Sample Source	Source	Sample #	House
<b>Formation</b>		<b>Depth</b>	
Specific Gravity	1.000	SG @ 60 °F	1.002
pH	7.09	Sulfides	Absent
Temperature (°F)	70	Reducing Agents	

## Cations

Sodium (Calc)	in Mg/L	606	in PPM	605
Calcium	in Mg/L	156	in PPM	156
Magnesium	in Mg/L	29	in PPM	29
Soluable Iron (FE2)	in Mg/L	0.0	in PPM	0

## Anions

Chlorides	in Mg/L	600	in PPM	599
Sulfates	in Mg/L	850	in PPM	848
Bicarbonates	in Mg/L	112	in PPM	112
Total Hardness (as CaCO3)	in Mg/L	510	in PPM	509
Total Dissolved Solids (Calc)	in Mg/L	2,353	in PPM	2,348
Equivalent NaCl Concentration	in Mg/L	1,863	in PPM	1,860

## Scaling Tendencies

\*Calcium Carbonate Index 17,509

*Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable*

\*Calcium Sulfate (Gyp) Index 132,600

*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

Report # 3161



# Water Analysis

Date: 13-May-11

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

*Freshwater Well # 2*  
*21K-265-32E*

## Analyzed For

Company	Well Name	County	State
Mewbourne	<del>SEPTIUS WEST</del>	Lea	New Mexico

Sample Source	Source	Sample #	Stock
<b>Formation</b>		<b>Depth</b>	
Specific Gravity	1.000	SG @ 60 °F	1.002
pH	7.47	Sulfides	Absent
Temperature (°F)	70	Reducing Agents	

## Cations

Sodium (Calc)	in Mg/L	478	in PPM	477
Calcium	in Mg/L	92	in PPM	92
Magnesium	in Mg/L	14	in PPM	14
Soluble Iron (FE2)	in Mg/L	0.0	in PPM	0

## Anions

Chlorides	in Mg/L	400	in PPM	399
Sulfates	in Mg/L	670	in PPM	669
Bicarbonates	in Mg/L	78	in PPM	78
Total Hardness (as CaCO3)	in Mg/L	290	in PPM	289
Total Dissolved Solids (Calc)	in Mg/L	1,732	in PPM	1,729
Equivalent NaCl Concentration	in Mg/L	1,347	in PPM	1,345

## Scaling Tendencies

\*Calcium Carbonate Index 7,183

*Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable*

\*Calcium Sulfate (Gyp) Index 61,640

*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

Report # 3162

**NOTICE  
MAY 19, 2011**

Mewbourne Oil Company has filed an application with the New Mexico Oil Conservation Division seeking approval to drill the Red Hills West SWD #1, located 700 feet from the south line and 690 feet from the east line (the SE/4SE/4) of Section 16, Township 26 South, Range 32 East, NMPM, Lea County, New Mexico, to the lower Bell Canyon - upper Cherry Canyon (Delaware) formation, and dispose of produced water into the lower Bell Canyon - upper Cherry Canyon (Delaware) formation. Expected maximum injection rates are 6,000 BWPD, and maximum injection pressures are 1050 psi. If you object to the application you must file a written request for hearing with the Division within 15 days of the date this notice is published. The Division's address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505. Failure to object will preclude you from contesting this matter at a later date. The name and address of the contact party for applicant is Steve Smith, Mewbourne Oil Company, Suite 1020, 500 West Texas, Midland, Texas 79701, (432)-682-3715. The well is located approximately 29 miles west southwest of Jal, New Mexico.  
**#26611**

**Parties To Be Noticed For C-108 Application**  
**Red Hills West SWD #1 - SE/4SE/4 Section 16, T26S, R32E, Lea County**

**Working Interest Owners**

**Section 15**

Chesapeake Exploration LLC  
Attn: Mr. Craig Barnard  
P. O. Box 18496  
Oklahoma City, Oklahoma 73154-0496

**Section 16**

EOG Resources, Inc.  
Attn: Mr. Doug Hurlbut  
P. O. Box 2267  
Midland, Texas 79705

**Section 21**

ConocoPhillips Company  
Attn: Mr. Tom J. Scarbrough  
P. O. Box 2197, 3WL-14066  
Houston, Texas 77079-1100

**Section 22**

Great Western Drilling Ltd.  
Attn: Mr. Carter Muire  
P.O. Box 1659  
Midland, Texas 79702

McCombs Energy, Ltd.  
5599 San Felipe, Suite 1200  
Houston, Texas 77056  
Attn: Mr. Ricky Haikin

Kaiser-Francis Anadarko, L.L.C.  
P. O. Box 21468  
Tulsa, Oklahoma 74121-1468  
Attn: Mr. Wayne A. Fields

**Surface Owner Section 16**

New Mexico State Land Office  
310 Old Santa Fe Trail  
Santa Fe, NM 87501-2708  
Attn: Mrs. Anna Villa

# MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020  
MIDLAND, TEXAS 79701

(432) 682-3715  
FAX (432) 685-4170

May 19, 2011

Certified Mail-Return Receipt No. 7009 2250 0000 0618 1816

New Mexico Oil Conservation Division  
Attn: Mr. Larry Hill, District Supervisor  
1625 N. French Drive  
Hobbs, NM 88240

Re: C-108 Application for SWD Well  
Red Hills West SWD #1  
SE/4SE/4 Section 16, T-26-S, R-32-E  
Lea County, New Mexico

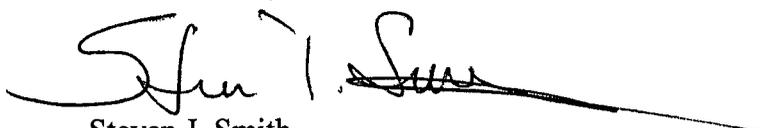
Dear Mr. Hill:

Enclosed is one copy of Mewbourne Oil Company's C-108 application for administrative approval of its proposed Red Hills West SWD #1. This will be a "new drill" salt water disposal well to be located in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 16, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico. The original and one copy of this application were sent to Mrs. Jami Bailey at the NMOCD offices in Santa Fe under cover letter of this date.

Please contact the undersigned if there are any questions or concerns. My phone number is (432) 682-3715 and my email address is [ssmith@mewbourne.com](mailto:ssmith@mewbourne.com).

Sincerely,

MEWBOURNE OIL COMPANY



Steven J. Smith  
Senior Landman

Enclosure

# MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020  
MIDLAND, TEXAS 79701

(432) 682-3715  
FAX (432) 685-4170

May 19, 2011

Certified Mail-Return Receipt No. 7009 2250 0000 0618 1830

New Mexico State Land Office  
Attn: Mrs. Anna Villa  
310 Old Santa Fe Trail  
Santa Fe, NM 87501-2708

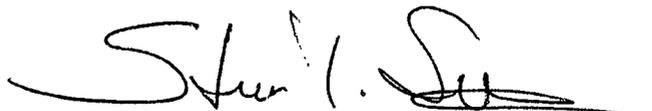
Re: C-108 Application for SWD Well  
Red Hills West SWD #1  
SE/4SE/4 Section 16, T-26-S, R-32-E  
Lea County, New Mexico

Gentlemen:

Mewbourne Oil Company has filed an application with the New Mexico Oil Conservation Division seeking approval for a salt water disposal well in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 16, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico. A copy of the application is enclosed. If you object to the application, you must notify the Division in writing no later than 15 days from the date of this letter (the Division's address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505). Failure to object will preclude you from contesting this matter later.

Sincerely,

MEWBOURNE OIL COMPANY



Steven J. Smith  
Senior Landman

Enclosure

# MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020  
MIDLAND, TEXAS 79701

(432) 682-3715  
FAX (432) 685-4170

May 19, 2011

Certified Mail-Return Receipt No. 7009 2250 0000 0618 1809

McCombs Energy, Ltd.  
Attn: Mr. Ricky Haikin  
5599 San Felipe, Suite 1200  
Houston, Texas 77056

Re: C-108 Application for SWD Well  
Red Hills West SWD #1  
SE/4SE/4 Section 16, T-26-S, R-32-E  
Lea County, New Mexico

Gentlemen:

Mewbourne Oil Company has filed an application with the New Mexico Oil Conservation Division seeking approval for a salt water disposal well in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 16, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico. A copy of the application is enclosed. If you object to the application, you must notify the Division in writing no later than 15 days from the date of this letter (the Division's address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505). Failure to object will preclude you from contesting this matter later.

Sincerely,

**MEWBOURNE OIL COMPANY**



Steven J. Smith  
Senior Landman

Enclosure

# MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020  
MIDLAND, TEXAS 79701

(432) 682-3715  
FAX (432) 685-4170

May 19, 2011

Certified Mail-Return Receipt No. 7009 2250 0000 0618 1793

Kaiser-Francis Anadarko, L.L.C.  
Attn: Mr. Wayne A. Fields  
P. O. Box 21468  
Tulsa, OK 74121-1468

Re: C-108 Application for SWD Well  
Red Hills West SWD #1  
SE/4SE/4 Section 16, T-26-S, R-32-E  
Lea County, New Mexico

Gentlemen:

Mewbourne Oil Company has filed an application with the New Mexico Oil Conservation Division seeking approval for a salt water disposal well in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 16, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico. A copy of the application is enclosed. If you object to the application, you must notify the Division in writing no later than 15 days from the date of this letter (the Division's address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505). Failure to object will preclude you from contesting this matter later.

Sincerely,

MEWBOURNE OIL COMPANY



Steven J. Smith  
Senior Landman

Enclosure

# MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020  
MIDLAND, TEXAS 79701

(432) 682-3715  
FAX (432) 685-4170

May 19, 2011

Certified Mail-Return Receipt No. 7009 2250 0000 0618 1786

Great Western Drilling Ltd.  
Attn: Mr. Carter Muire  
P.O. Box 1659  
Midland, TX 79702

Re: C-108 Application for SWD Well  
Red Hills West SWD #1  
SE/4SE/4 Section 16, T-26-S, R-32-E  
Lea County, New Mexico

Gentlemen:

Mewbourne Oil Company has filed an application with the New Mexico Oil Conservation Division seeking approval for a salt water disposal well in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 16, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico. A copy of the application is enclosed. If you object to the application, you must notify the Division in writing no later than 15 days from the date of this letter (the Division's address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505). Failure to object will preclude you from contesting this matter later.

Sincerely,

MEWBOURNE OIL COMPANY



Steven J. Smith  
Senior Landman

Enclosure

# MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020  
MIDLAND, TEXAS 79701

(432) 682-3715  
FAX (432) 685-4170

May 19, 2011

Certified Mail-Return Receipt No. 7009 2250 0000 0618 1779

EOG Resources, Inc.  
Attn: Mr. Doug Hurlbut  
P. O. Box 2267  
Midland, TX 79705

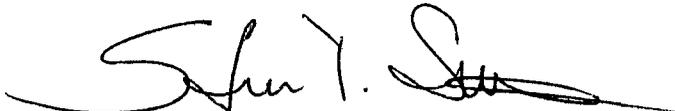
Re: C-108 Application for SWD Well  
Red Hills West SWD #1  
SE/4SE/4 Section 16, T-26-S, R-32-E  
Lea County, New Mexico

Gentlemen:

Mewbourne Oil Company has filed an application with the New Mexico Oil Conservation Division seeking approval for a salt water disposal well in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 16, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico. A copy of the application is enclosed. If you object to the application, you must notify the Division in writing no later than 15 days from the date of this letter (the Division's address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505). Failure to object will preclude you from contesting this matter later.

Sincerely,

MEWBOURNE OIL COMPANY



Steven J. Smith  
Senior Landman

Enclosure

# MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020  
MIDLAND, TEXAS 79701

(432) 682-3715  
FAX (432) 685-4170

May 19, 2011

Certified Mail-Return Receipt No. 7009 2250 0000 0618 2479

ConocoPhillips Company  
Attn: Mr. Tom J. Scarbrough  
P. O. Box 2197, 3WL-14066  
Houston, TX 77079-1100

Re: C-108 Application for SWD Well  
Red Hills West SWD #1  
SE/4SE/4 Section 16, T-26-S, R-32-E  
Lea County, New Mexico

Gentlemen:

Mewbourne Oil Company has filed an application with the New Mexico Oil Conservation Division seeking approval for a salt water disposal well in the SE $\frac{1}{4}$ SE $\frac{1}{4}$  of Section 16, Township 26 South, Range 32 East, N.M.P.M., Lea County, New Mexico. A copy of the application is enclosed. If you object to the application, you must notify the Division in writing no later than 15 days from the date of this letter (the Division's address is 1220 South St. Francis Drive, Santa Fe, New Mexico 87505). Failure to object will preclude you from contesting this matter later.

Sincerely,

MEWBOURNE OIL COMPANY



Steven J. Smith  
Senior Landman

Enclosure

# MEWBOURNE OIL COMPANY

500 W. TEXAS, SUITE 1020  
MIDLAND, TEXAS 79701

(432) 682-3715  
FAX (432) 685-4170

May 19, 2011

Certified Mail-Return Receipt No. 7009 2250 0000 0618 2486

Chesapeake Exploration LLC  
Attn: Mr. Craig Barnard  
P. O. Box 18496  
Oklahoma City, OK 73154-0496

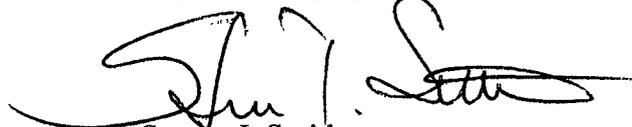
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Red Hills West 16 # 1 SWD

# Affidavit of Publication

State of New Mexico,  
County of Lea.

I, JUDY HANNA  
PUBLISHER

of the Hobbs News-Sun, a  
newspaper published at Hobbs, New  
Mexico, do solemnly swear that the  
clipping attached hereto was  
published in the regular and entire  
issue of said newspaper, and not a  
supplement thereof for a period

of 1 issue(s).

Beginning with the issue dated  
May 19, 2011  
and ending with the issue dated  
May 19, 2011

*Judy Hanna*  
\_\_\_\_\_  
PUBLISHER

Sworn and subscribed to before me  
this 23rd day of  
May, 2011

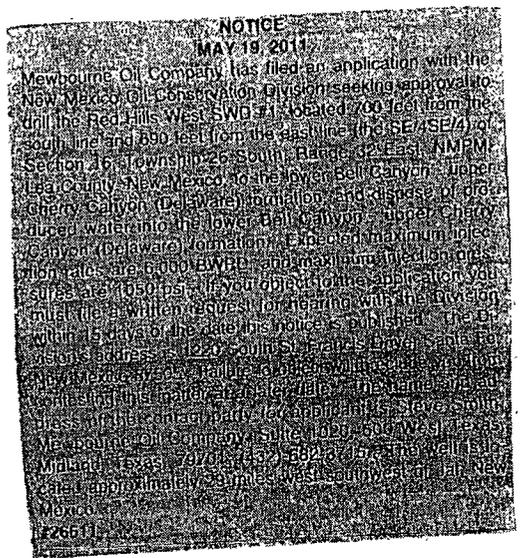
*Dora Yanez*  
\_\_\_\_\_

Notary Public

My commission expires  
February 09, 2013  
(Seal)



This newspaper is duly qualified to  
publish legal notices or  
advertisements within the meaning of  
Section 3, Chapter 167, Laws of  
1937 and payment of fees for said  
publication has been made.



a0107458      00072929  
MICKEY YOUNG  
MEWBOURNE OIL/HOBBS  
P.O. BOX 5270  
HOBBS, NM 88241

# Inactive Well List

**Total Well Count: 577 Inactive Well Count: 5**

**Printed On: Sunday, May 29 2011**

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	TA Exp Date
1	30-025-29679	QUERECHO PLAINS BS SAND UNIT #002	N-23-18S-32E	N	14744	MEWBOURNE OIL CO	F	I	11/2008	INT TO PA 06/24/10 BLM		
1	30-025-29179	QUERECHO PLAINS QA SAND UNIT #011	P-21-18S-32E	P	14744	MEWBOURNE OIL CO	F	I	10/2008	PENROSE SAND INT TO PA 06/24/2010		
1	30-025-28068	QUERECHO PLAINS QA SAND UNIT #018	D-26-18S-32E	D	14744	MEWBOURNE OIL CO	F	I	02/2010	QUEEN INT TO PA BLM 06/24/10		
2	30-015-23898	SMITH 11 COM #001	C-11-24S-27E	C	14744	MEWBOURNE OIL CO	P	G	03/2008			
1	30-025-30024	STATE 16 #001	L-16-17S-35E	L	14744	MEWBOURNE OIL CO	S	G	09/2009	ATOKA INT TO PA 11/03/2009		

WHERE Ogrid:14744, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15, Excludes Wells Under ACOI, Excludes Wells in Approved TA Period

**Jones, William V., EMNRD**

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**From:** Jones, William V., EMNRD  
**Sent:** Sunday, May 29, 2011 1:56 PM  
**To:** 'Steve Smith'; 'drobison@mewbourne.com'  
**Cc:** Ezeanyim, Richard, EMNRD; Kautz, Paul, EMNRD  
**Subject:** Disposal application from Mewbourne: Proposed Red Hills West SWD #1 30-025-NA  
Delaware disposal

Hello Steve and Drew:

WOW – thanks for this application. Very well done. Thanks for covering for my benefit the producability of the target disposal interval in such detail.

Please send the API number and a copy of the actual newspaper notice when they are available.

I have this permit written and ready to release (after adding the API number) and also if no objections arrive. It will be SWD-1282 if all works out.

Thanks Again,

William V Jones, P.E.  
Engineering, Oil Conservation Division  
1220 South St. Francis Drive, Santa Fe, NM 87505  
Tel 505.476.3448 ~ Fax 505.476.3462



**Jones, William V., EMNRD**

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**From:** Gerholt, Gabrielle, EMNRD  
**Sent:** Tuesday, June 21, 2011 11:08 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Sanchez, Daniel J., EMNRD  
**Subject:** Tweedy 30-015-28763

Dear Will,

Upon review of Mewbourne's C-101 for 15-28763, it is clear that this is a re-entry. Per 19.15.8.9(c), the OCD may release the one-well financial assurance if the well is returned to production and covered by a blanket bond. This well is covered by a blanket bond and Mewbourne proposes to bring the well into production. The only reason the "Y" is present on the 'Needs Additional Financial Assurance' page is because of a coding issue.

Given that this is an IT issue, I can see no reason as to why the Order should be withhold. Please feel free to re-lease the order.

Gabrielle A. Gerholt  
Assistant General Counsel  
Oil Conservation Division  
505.476.3451

**Injection Permit Checklist** (11/15/2010)

WFX \_\_\_\_\_ PMX \_\_\_\_\_ SWD 1282 Permit Date 6/11/11 UIC Qtr (A)(M)(J)

# Wells 1 Well Name(s): Red Hills West SWD #1

API Num: 30-0 25-NA Spud Date: NEW New/Old: N (UIC primacy March 7, 1982)

Footages 7007SL/690 FEL Unit P Sec 16 Tsp 26S Rge 32E County LEA

General Location: 3 MI N of TEXAS; NE of RED BLUFF

Operator: MEUBURG OIL COMPANY Contact STAN J. SMITH / DREW ROBINSON <sup>Landman</sup> <sup>ENRS</sup>

OGRID: \_\_\_\_\_ RULE 5.9 Compliance (Wells) \_\_\_\_\_ (Finan Assur) \_\_\_\_\_ IS 5.9 OK? \_\_\_\_\_

Well File Reviewed None Current Status: Planned

Planned Work to Well: Drill, inject

Diagrams: Before Conversion \_\_\_\_\_ After Conversion ✓ Elogs in Imaging File: New

PLAN

**Well Details:** Sizes Hole.....Pipe Setting Depths Stage Tool Cement Sx or Cf Determination Method

Well Details:	Sizes Hole.....Pipe	Setting Depths	Stage Tool	Cement Sx or Cf	Determination Method
New <u>✓</u> Existing _____ Surface	<u>12 1/2 9 5/8</u>	<u>1025</u>	<u>—</u>	<u>373</u>	<u>CIRC</u>
New _____ Existing _____ Intern					
New <u>✓</u> Existing _____ LongSt	<u>8 3/4 7"</u>	<u>6300</u>	<u>—</u>	<u>630</u>	<u>CIRC</u>
New _____ Existing _____ Liner					
New _____ Existing _____ OpenHole					

**Depths/Formations:** Depths, Ft. Formation Tops?

(Mason E. DEL. 4468-4574 Rowley/LEAS)

Depths/Formations:	Depths, Ft.	Formation	Tops?
Formation(s) Above			
Injection TOP:	<u>5100</u>	<u>Bell C.</u>	Max. PSI <u>1020</u> OpenHole _____ Perfs <u>✓</u>
Injection BOTTOM:	<u>6300</u>	<u>clay C.</u>	Tubing Size <u>2 7/8</u> Packer Depth <u>5000'</u>
Formation(s) Below			

~~Capitan Reef? (Detash? Noticed?) [WIPP? Noticed?] Salado Top/Bot \_\_\_\_\_ Cliff House? \_\_\_\_\_~~

Fresh Water: Depths: 2300' Formation \_\_\_\_\_ Wells? yes Analysis? ✓ Affirmative Statement ✓

Disposal Fluid Analysis? ✓ Sources: BS wells in area

Disposal Interval: Analysis? ✓ Production Potential/Testing: See Application withmap

Notice: Newspaper Date 5/19/11 Surface Owner SLO Mineral Owner(s) \_\_\_\_\_

RULE 26.7(A) Affected Persons: Company/EOG/Cham/McConhe/K-F Anderson/GW/

AOR: Maps? ✓ Well List? ✓ Producing in Interval? NO Wellbore Diagrams? \_\_\_\_\_

.....Active Wells 1 Repairs? \_\_\_\_\_ Which Wells? \_\_\_\_\_

.....P&A Wells 0 Repairs? \_\_\_\_\_ Which Wells? \_\_\_\_\_

Issues: Log files, but not logs Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_

well? Proposed?  
A of 21 = ?