

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

HOBBSOCD

FEB 12 2015

RECEIVED

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Mack Energy Corporation

3. Address and Telephone No.

P.O. Box 960 Artesia, NM 88211-0960

(575) 748-1288

4. Location of Well (Footage, Sec., T. R., M. or Survey Description)

990 FNL & 990 FWL, Sec. 1 T18S R32E

5. Lease Designation and Serial No.

NMNM-121480

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Rangers Federal #1

9. API Well No.

30-025-40180

10. Field and Pool, or Exploratory Area

Young Bone Spring, North

11. County or Parish, State

Lea, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☐ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other Onshore Order 7  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Name (s) of formation (s) producing water on the lease Bone Spring

Amount of water produced from each formation in barrels per day 52

A water analysis of produced water from each zone showing at lease the total dissolved solids, ph, and concentration of chlorides and sulfates.

Attached

How water is stored on lease

Fiberglass Tank

How water is moved to disposal facility

Pipelined to Disposal

Operator's name, well name and location, by 1/4 1/4, section township, and range, of the disposal facility. If the disposal facility is an approved disposal system, the operator's name and the name of the disposal system should suffice.

COG Operating LLC  
Pronghorn SWD  
NE/4 NW/4 Sec. 20 T17S R32E

Disposal Permit

SWD-536

14. I hereby certify that the foregoing is true and correct

Signed James W. Sherrill

Title Production Clerk

(This space for Federal or State office use)

Approved by \_\_\_\_\_

Conditions of approval, if any:

Title \_\_\_\_\_

APPROVED 1/13/13

FEB Date 4 2015

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

\*See Instruction on Reverse Side

FEB 18 2015

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DM



Catalyst Oilfield Services  
 11999 E Hwy 158  
 Gardendale, TX 79758  
 (432) 563-0727  
 Fax: (432) 224-1038

## Water Analysis Report

Customer: Mack Energy Corporation Sample #: 11456  
 Area: Artesia Analysis ID #: 13220  
 Lease: Rangers  
 Location: #1 0  
 Sample Point: Wellhead

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	1/24/2013	Chloride:	85328.7	Sodium:	44580.0
Analysis Date:	1/30/2013	Bicarbonate:	197.6	Magnesium:	2500.0
Analyst:	Catalyst	Carbonate:		Calcium:	5077.0
TDS (mg/l or g/m3):	140676.1	Sulfate:	1400.0	Potassium:	1393.0
Density (g/cm3):	1.097			Strontium:	117.4
				Barium:	0.0
Hydrogen Sulfide:	6			Iron:	80.8
Carbon Dioxide:	106			Manganese:	1.555
Comments:		pH at time of sampling:	7		
		pH at time of analysis:			
		pH used in Calculation:	7		
		Temperature @ lab conditions (F):	75	Conductivity (micro-ohms/cm):	176700
				Resistivity (ohm meter):	.0566

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> *2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.66	12.22	-0.18	0.00	-0.19	0.00	-0.08	0.00	0.00	0.00
100	0.72	14.36	-0.24	0.00	-0.18	0.00	-0.10	0.00	0.00	0.00
120	0.77	16.81	-0.29	0.00	-0.14	0.00	-0.10	0.00	0.00	0.00
140	0.82	19.25	-0.32	0.00	-0.09	0.00	-0.10	0.00	0.00	0.00
160	0.86	22.00	-0.35	0.00	-0.01	0.00	-0.09	0.00	0.00	0.00
180	0.92	24.75	-0.37	0.00	0.08	94.72	-0.08	0.00	0.00	0.00
200	0.97	27.50	-0.39	0.00	0.18	201.97	-0.06	0.00	0.00	0.00
220	1.04	30.25	-0.40	0.00	0.29	296.39	-0.04	0.00	0.00	0.00

**BUREAU OF LAND MANAGEMENT**

Carlsbad Field Office  
620 East Greene Street  
Carlsbad, New Mexico 88220  
575-234-5972

**Disposal of Produced Water From Federal Wells  
Conditions of Approval**

Approval of the produced water disposal methodology is subject to the following conditions of approval:

1. This agency shall be notified of any change in your method or location of disposal.
2. Compliance with all provisions of Onshore Order No. 7.
3. This agency shall be notified of any spill or discharge as required by NTL-3A.
4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
5. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
6. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
7. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.
8. Disposal at any other site will require prior approval.
9. Subject to like approval by NMOCD.

7/10/14