## Form 3160-5 (June 1990)

Approved by

onditions of approval, if any

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD-ARTESIA RECEIVED

JUL 7 2010

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

ease Designation and Serial No

Date

NMOCD ARTESIA NMNM-89878 SUNDRY NOTICES AND REPORTS ON WELI 6 If Indian, Allottee or Tribe Name 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 7 If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE I Type of Well NMNM-124572 8 Well Name and No 2 Name of Operator Bengals Federal Com #1 Mack Energy Corporation 9 API Well No 3 Address and Telephone No 30-015-37213 P.O. Box 960 Artesia, NM 88211-0960 (575) 748-1288 10 Field and Pool, or Exploratory Area 4 Location of Well (Footage, Sec , T R , M or Survey Description) Pavo Mesa; Abo 11 County or Parish, State 1980 FSL & 330 FEL, Sec. 19 T16S R29E Eddy, NM CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA 12 TYPE OF SUBMISSION TYPE OF ACTION Notice of Intent Abandonment Change of Plans New Construction Recompletion Subsequent Report Non-Routine Fracturing Plugging Back Casing Repair Water Shut-Off Final Abandonment Notice Altering Casing Conversion to Injection **Onshore Order 7** 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 Pavo Mesa; Abo Amount of water produced from each formation in barrels per 589 day A water analysis of produced water from each zone showing at 3 **2010** lease the total dissolved solids, ph, and concentration of JUL Attached chlorides and sulfates. How water is stored on lease Fiberglass Tank BUREAU OF LAND MANAGEMENT How water is moved t disposal facility Trucked <del>CARLSBAD FIELD OFFICE</del> Operator's name, well name and location, by 1/4 1/4, section **COG Operating LLC** township, and range, of the disposal facility. If the disposal Aid State 14#1 facility is an approved disposal system, the operator's name and the name of the disposal system should suffice. Sec 14-T17S-R28E SW/4 SE/4 Accepted for record SWD-757 SEE ATTACHED FOR Disposal Permit CONDITIONS OF APPROVAL Production Clerk 6/15/10

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



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

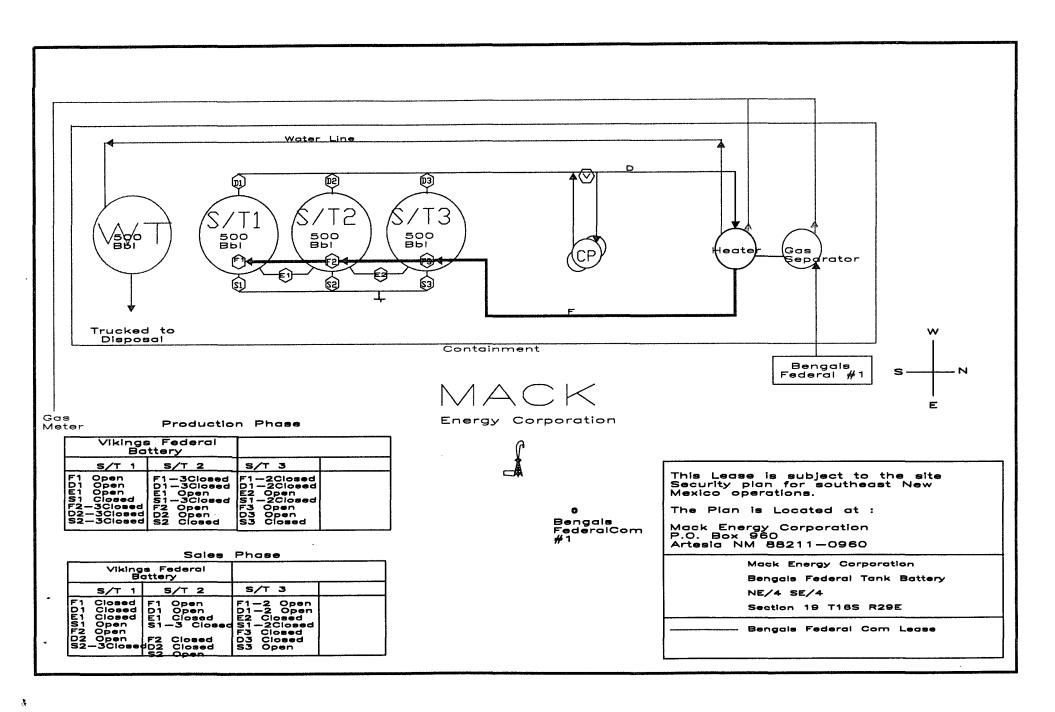
## **Water Analysis Report**

Customer:	Mack Energy Corporation		Sample #:	1164
Area:	Artesia		Analysis ID #:	3390
Lease:	Bengals Fed			
Location:	1	0	,	
Sample Point:	Wellhead			

Sampling Date:	3/3/2010	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	3/8/2010	Chloride:	44647.8	1259.35	Sodium:	21210.0	922.58
Analyst:	Catalyst	Bicarbonate:	539.2	8.84	Magnesium:	1570.0	129.15
TDS (mg/l or g/m3): Density (g/cm3):	74393.6 1.053	Carbonate: Sulfate:	1400.0	29.15	Calcium: Strontium: Barium:	4814.0 0.0 0.9	240.22 0. 0.01
Hydrogen Sulfide:	83	-			fron: Manganese:	5.4 0.337	0.01 0.19 0.01
Carbon Dioxide:	79						
Comments:		pH at time of sampli	is:	7			
		pH used in Calculatio  Temperature @ lab co		7 75	Conductivity (micro-ohms/cm): Resistivity (ohm meter):		95000 .1053

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl											
Temp °F	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> 2H <sub>2</sub> 0		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO 4		
	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	
80	1.04	65.47	-0.09	0.00	-0.13	0.00	0.00	0.00	1.08	0.33	
100	1.12	71.99	-0.13	0.00	-0.10	0.00	0.00	0.00	0.91	0.33	
120	1.20	78.83	-0.15	0.00	-0.04	0.00	0.00	0.00	0.76	0.33	
140	1.28	85.67	-0.17	0.00	0.03	46.26	0.00	0.00	0.64	0.33	
160	1.36	92.19	-0.17	0.00	0.13	161.89	0.00	0.00	0.53	0.33	
180	1.45	98.70	-0.17	0.00	0.24	269.72	0.00	0.00	0.44	0.33	
200	1.53	104.89	-0.17	0.00	0.37	363.86	0.00	0.00	0.38	0.33	
220	1.62	110.75	-0.16	0.00	0.50	440.73	0.00	0.00	0.32	0.33	





## 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. All above ground structures on the lease shall be painted Shale Green (5Y 4/2), or as per approved APD stipulations. This is to be done within 90 days, if you have not already done so.
- 6. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
- 7. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
- 8. 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.
- 9. Subject to like approval by NMOCD.
- 10. If approved facility is down you must obtain approval prior to taking water to any other facility.

3/25/2010

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