N. OIL CONS. COMMISSION
P.O. BOX 1980
HOBBS, NEW MEXICO 88240

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

2. Name of Operator
Mack Energy Corporation

3. Address and Telephone No.
P.O. Box 1359, Artesia, NM 88211-1359 (505)748-1288

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660 FSL 1980 FEL → W (SJS)
Sec. 33-T17S-R32E

5. Lease Designation and Serial No.
LC029409A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
Pearsall AX #3

9. API Well No.
30-025-00813

10. Field and Pool, or Exploratory Area
Pearsall Queen

11. County or Parish, State
Lea County, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ] Other _____	[X] 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.)*

See Attached

RECEIVED
MAR 11 10 35 AM '94
CARLSBAD, NEW MEXICO

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

Signed Cressa D Carter Title Production Clerk Date 2/28/94

(This space for Federal or State office use)

Approved by Orig. Signed by Shannon J. Shaw Title PETROLEUM ENGINEER Date 3/30/94
Conditions of approval, if any:

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

(A) *Name(s) of formation(s) producing water on the lease.*

Queen

(B) *Amount of water produced from each formation in barrels per day.*

1/2 BWPD

(C) *A water analysis of produced water from each zone showing at lease the total dissolved solids, ph, and the concentrations of chlorides and sulfates.*

Attached

(D) *How water is stored on the lease.*

Fiberglass tank

(E) *How water is moved to disposal facility.*

By Truck

(F) *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.*

Mack Energy Corporation

F.M. Robinson SWD sec 27-17-29 sw nw

(G) *For pit approval we need: the pit size and location, evaporation rate for the area compensated for annual rainfall, estimated percolation rate based on the soil characteristics under and adjacent to the pit, and depth and aerial extent of all unseable water aquifers in the area (i.e., less that 10,000 ppm total dissolved solids).*

MACK ENERGY CORPORATION

Petrolite Corporation
510 West Texas
Artesia, NM 88210-2041

TRETOLITE DMSION

(506) 746-3588
Fax (505) 746-3580

Reply to:
P.O. Box FF
Artesia, NM
88211-7531

WATER ANALYSIS REPORT

Company	: MACK ENERGY	Date	: 03/04/94
Address	: ARTESIA, NEW MEXICO	Date Sampled	: 03/04/94
Lease	: PEARSALL AX	Analysis No.	: 1146
Well	: #3		
Sample Pt.	: WELLHEAD		

	ANALYSIS		mg/L		* meq/L
1.	pH	7.0			
2.	H2S	<1 PPM			
3.	Specific Gravity	1.145			
4.	Total Dissolved Solids		250551.1		
5.	Suspended Solids		NR		
6.	Dissolved Oxygen		NR		
7.	Dissolved CO2		80 PPM		
8.	Oil In Water		NR		
9.	Phenolphthalein Alkalinity (CaCO3)				
10.	Methyl Orange Alkalinity (CaCO3)		260.0		
11.	Bicarbonate	HCO3	317.2	HCO3	5.2
12.	Chloride	Cl	153699.1	Cl	4335.7
13.	Sulfate	SO4	2200.0	SO4	45.8
14.	Calcium	Ca	5482.9	Ca	273.6
15.	Magnesium	Mg	6408.1	Mg	527.2
16.	Sodium (calculated)	Na	82439.2	Na	3585.9
17.	Iron	Fe	4.5		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		40076.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

274	*Ca <----- *HCO3	5
	/------->	
527	*Mg -----> *SO4	46
	<----------/	
3586	*Na -----> *Cl	4336

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO3)2	81.0	5.2	421
CaSO4	68.1	45.8	3118
CaCl2	55.5	222.6	12351
Mg(HCO3)2	73.2		
MgSO4	60.2		
MgCl2	47.6	527.2	25097
NaHCO3	84.0		
Na2SO4	71.0		
NaCl	58.4	3585.9	209558

Saturation Values Dist. Water 20 C

CaCO3	13 mg/L
CaSO4 * 2H2O	2090 mg/L
BaSO4	2.4 mg/L

REMARKS:

C. CULP / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
TOM WILTON

SCALE TENDENCY REPORT

Company	: MACK ENERGY	Date	: 03/04/94
Address	: ARTESIA, NEW MEXICO	Date Sampled	: 03/04/94
Lease	: PEARSALL AX	Analysis No.	: 1146
Well	: #3	Analyst	: TOM WILTON
Sample Pt.	: WELLHEAD		

STABILITY INDEX CALCULATIONS
(Stiff-Davis Method)
CaCO3 Scaling Tendency

S.I. =	1.2	at	60 deg. F or	16	deg. C
S.I. =	1.2	at	80 deg. F or	27	deg. C
S.I. =	1.2	at	100 deg. F or	38	deg. C
S.I. =	1.2	at	120 deg. F or	49	deg. C
S.I. =	1.3	at	140 deg. F or	60	deg. C

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CALCIUM SULFATE SCALING TENDENCY CALCULATIONS
(Skillman-McDonald-Stiff Method)
Calcium Sulfate

S =	2645	at	60 deg. F or	16	deg C
S =	2903	at	80 deg. F or	27	deg C
S =	3064	at	100 deg. F or	38	deg C
S =	3133	at	120 deg. F or	49	deg C
S =	3180	at	140 deg. F or	60	deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
TOM WILTON

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 8841
Order No. R-8191

APPLICATION OF MARBOB ENERGY CORPORATION FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on March 5, 1986, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 26th day of March, 1986, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Marbob Energy Corporation, is the owner and operator of the F. M. Robinson Well No. 1, located 1850 feet from the North line and 660 feet from the West line (Unit E) of Section 27, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico.

(3) The applicant proposes to utilize said well to dispose of produced salt water into the Cisco formation with injection into the perforated interval from approximately 9270 feet to 9290 feet.

(4) The injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 9215 feet; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak detection device should be attached

to the annulus in order to determine leakage in the casing, tubing, or packer.

(5) Prior to commencing injection operations, the casing in the subject well should be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(6) The injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1854 psi.

(7) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the Pennsylvanian zone.

(8) The operator should give advance notification to the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(9) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape the Pennsylvanian formation or onto the surface.

(10) Approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Marbob Energy Corporation, is hereby authorized to utilize its F. M. Robinson Well No. 1, located 1850 feet from the North line and 660 feet from the West line (Unit E) of Section 27, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico, to dispose of produced salt water into the Cisco formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 9215 feet, with injection into the perforated interval from approximately 9270 feet to 9290 feet;

PROVIDED HOWEVER THAT, the tubing shall be plastic-lined; the casing-tubing annulus shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus, or the annulus shall be equipped with an approved leak detection device, in order to determine leakage in the casing, tubing or packer.

PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in the subject well shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's district office at Artesia.

(2) The injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1854 psi.

(3) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Pennsylvanian zone.

(4) The operator shall notify the supervisor of the Artesia district office of the Division in advance of the date and time of the installation of disposal equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(5) The operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing, casing, or packer in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(6) The applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702, 703, 704, 705, 706, 708, and 1120 of the Division Rules and Regulations.

(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

R. L. STAMETS
Director

S E A L

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BUREAU OF LAND MANAGEMENT
CARLSBAD RESOURCE AREA

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 be notified of any change in your method or location of disposal.

2. Compliance with all provisions of Onshore Order No. 7 (Disposal of Produced Water).

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 aboveground structures on the lease shall be painted sandstone brown, federal std. 595-20318, within 90 days, if you have not already done so.

6. Any on lease open top storage tanks or pits shall be covered with a wire screen or plastic/nylon netting to prevent entry by birds and other wildlife.

7. This approval does not constitute right-of-way approval for any off lease activities. 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.