

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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
☐ Oil Well ☐ Gas Well ☒ Other Produced Water Disposal

2. Name of Operator
Mitchell Energy Corporation

3. Address and Telephone No.

P. O. Box 4000, The Woodlands, TX 77387-4000

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

Unit F, Sec 31, T19S, R33E

5. Lease Designation and Serial No.

NM 67111

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

N/A

8. Well Name and No.

Geronimo Fed #4 Battery

9. API Well No.

10. Field and Pool, or Exploratory Area

Gem (Bone Spring)

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 *SSS*

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☐ Other

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut-Off

☐ Conversion to Injection

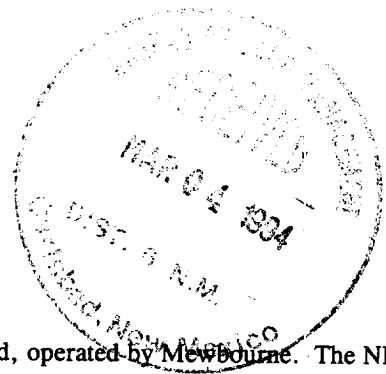
☒ Dispose Water

(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.)*

Produced Water Disposal

- (a) Producing water from Bone Spring formation.
- (b) Producing 35 BWPD.
- (c) Water analysis attached.
- (d) Water is stored in 400 bbl closed top fiberglass tank @ battery.
- (e) Water is transported by pipeline to disposal facility.
- (f) Disposal is in the Mewbourne Querecho Plains Bone Spring Waterflood, operated by Mewbourne. The NMOCD permit is attached w/injection well locations.



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

Signed James Blower

Title Engineer

Date 2/7/94

(This space for Federal or State office use)

Approved by Orig. Signed by Shannon J. Shaw
Conditions of approval, if any:

Title PETROLEUM ENGINEER

Date 3/18/94

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

MARTIN WATER LABORATORIES, INC.

P.O. Box 1468 Phone 943-3234 or 663-1040
Monahans, Texas 79756

RESULT OF WATER ANALYSES

709 W. Indiana Phone 683-4521
Midland, Texas 79701

to: Mr. Jim Blount
400 W. Illinois, Suite 1000, Midland, TX

LABORATORY NO. 692160

SAMPLE RECEIVED 6-16-92

RESULTS REPORTED 6-26-92

API WATER ANALYSIS REPORT FORM

Company Mitchell Energy Corporation		Sample No.		Date Sampled	
Field North Pearl GEM		Legal Description		County or Parish Lea State NM	
Lease or Unit Geronimo Federal		Well #4		Depth	
Formation 1st Bone Springs		Water, B/D			
Type of Water (Produced, Supply, etc.) Produced		Sampling Point		Sampled By	

DISSOLVED SOLIDS

CATIONS

	mg/l	me/l
Sodium, Na (calc.)	65,591	2,851.8
Calcium, Ca	2,040	102.0
Magnesium, Mg	413	34.0
Barium, Ba		

ANIONS

Chloride, Cl	105,108	2,964.0
Sulfate, SO ₄	468	9.7
Carbonate, CO ₃	0	0.0
Bicarbonate, HCO ₃	854	14.0

Total Dissolved Solids (calc.)

174,474

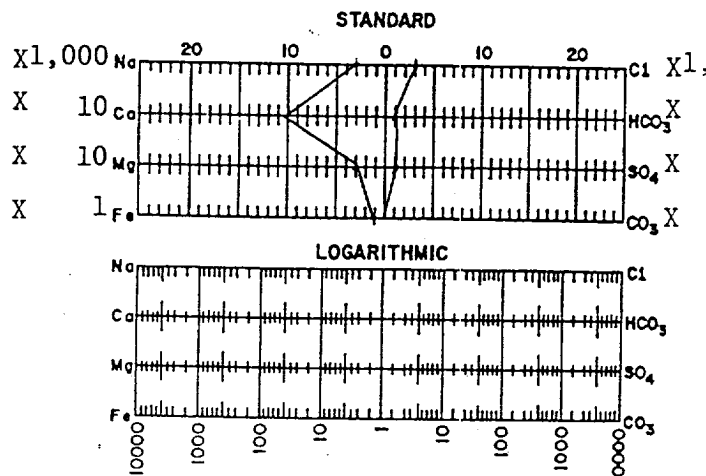
Iron, Fe (total) 28.0 1.1

Sulfide, as H₂S 0.0

OTHER PROPERTIES

pH 6.62
Specific Gravity, 60/60 F. 1.1118
Resistivity (ohm-meters) 77°F. 0.063
Total Hardness, as CaCO₃ 6,800

WATER PATTERNS — me/l



REMARKS & RECOMMENDATIONS: We have no records of Bone Springs in this field. Though our nearest record in the Pearl field does not resemble this water, we find the surround-area records show substantial fluctuations in characteristics of Bone Springs. This water is similar to some of our distant records, and it is very similar to the water from well #5 in the accompanying report on that well. Therefore, we could not conclude with confidence that this is anything other than natural Bone Springs.

Waylan C. Martin, M.A.