

N.M. 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

5. Lease Designation and Serial No.

NM-69377

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Red Tank 28 Federal No. 2

9. API Well No.

30-025-31656

10. Field and Pool, or Exploratory Area

E.Liv. Ridge Delaware (Unders)

11. County or Parish, State

Lea County, NM

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Pogo Producing Company

3. Address and Telephone No.

P. O. Box 10340, Midland, TX 79702-7340 (915)682-6822

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

660' FSL & 660' FEL, Section 28, T22S, R32E

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

- ☐ 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.)\*

Pogo Producing Company request permission to use produced water to drill Delaware and Bone Springs wells after surface pipe has been set and cemented. Attached are copies of water analysis caught at our Red Tank 28 Federal No. 3 and Calmon No. 5 SWD's which collect and inject waters produced from the Delaware and Bone Springs formations. This analysis shows Pogo's produced waters are extremely high in chlorides and are basically 10# brine water thus will not adversely effect the salt sections.

RECEIVED  
FEB 7 11 59 AM '94

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

Signed

Title Senior Operations Engineer

Date February 4, 1994

(This space for Federal or State office use)

Only Signed by Adam Salameh

Title Petroleum Engineer

Date 2/24/94

Approved by  
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

# TRETOLITE

Chemicals and Services



16010 Barker's Point Lane • Houston, Texas 77079  
713 558-5200 • Telex: 4620346 • FAX: 713 589-4707

Reply to: P.O. Box FF  
Artesia, New Mexico 88210  
(505) 746-3588 Phone  
(505) 746-3580 Fax

## WATER ANALYSIS REPORT

Company : POGO PRODUCING  
Address : MIDLAND, TEXAS  
Lease : 28-3  
Well : SWD  
Sample Pt. : TANK

Date : 10/22/93  
Date Sampled : 10/22/93  
Analysis No. : 370

| ANALYSIS                                           |                  | mg/L     |                  | * meq/L |
|----------------------------------------------------|------------------|----------|------------------|---------|
| 1. pH                                              | 5.3              |          |                  |         |
| 2. H <sub>2</sub> S                                | NR               |          |                  |         |
| 3. Specific Gravity                                | 1.140            |          |                  |         |
| 4. Total Dissolved Solids                          |                  | 223918.2 |                  |         |
| 5. Suspended Solids                                |                  | NR       |                  |         |
| 6. Dissolved Oxygen                                |                  | NR       |                  |         |
| 7. Dissolved CO <sub>2</sub>                       |                  | NR       |                  |         |
| 8. Oil In Water                                    |                  | NR       |                  |         |
| 9. Phenolphthalein Alkalinity (CaCO <sub>3</sub> ) |                  |          |                  |         |
| 10. Methyl Orange Alkalinity (CaCO <sub>3</sub> )  |                  |          |                  |         |
| 11. Bicarbonate                                    | HCO <sub>3</sub> | 97.0     | HCO <sub>3</sub> | 1.6     |
| 12. Chloride                                       | Cl               | 138024.0 | Cl               | 3893.5  |
| 13. Sulfate                                        | SO <sub>4</sub>  | 375.0    | SO <sub>4</sub>  | 7.8     |
| 14. Calcium                                        | Ca               | 13600.0  | Ca               | 578.6   |
| 15. Magnesium                                      | Mg               | 2583.6   | Mg               | 212.6   |
| 16. Sodium (calculated)                            | Na               | 69238.6  | Na               | 3011.7  |
| 17. Iron                                           | Fe               | NR       |                  |         |
| 18. Barium                                         | Ba               | NR       |                  |         |
| 19. Strontium                                      | Sr               | NR       |                  |         |
| 20. Total Hardness (CaCO <sub>3</sub> )            |                  | 44600.0  |                  |         |

## PROBABLE MINERAL COMPOSITION

| *milli equivalents per Liter          |                              | Compound                            | Equiv wt | X meq/L | = mg/  |
|---------------------------------------|------------------------------|-------------------------------------|----------|---------|--------|
| 679                                   | *Ca <----- *HCO <sub>3</sub> | Ca (HCO <sub>3</sub> ) <sub>2</sub> | 81.0     | 1.6     | 129    |
| -----                                 | /----->                      | CaSO <sub>4</sub>                   | 68.1     | 7.8     | 531    |
| 213                                   | *Mg -----> *SO <sub>4</sub>  | CaCl <sub>2</sub>                   | 55.5     | 669.2   | 37138  |
| -----                                 | <-----/                      | Mg (HCO <sub>3</sub> ) <sub>2</sub> | 73.2     |         |        |
| 3012                                  | *Na -----> *Cl               | MgSO <sub>4</sub>                   | 60.2     |         |        |
| -----                                 |                              | MgCl <sub>2</sub>                   | 47.6     | 212.6   | 10119  |
| Saturation Values Dist. Water 20 C    |                              | NaHCO <sub>3</sub>                  | 84.0     |         |        |
| CaCO <sub>3</sub>                     | 13 mg/L                      | Na <sub>2</sub> SO <sub>4</sub>     | 71.0     |         |        |
| CaSO <sub>4</sub> * 2H <sub>2</sub> O | 2090 mg/L                    | NaCl                                | 58.4     | 3011.7  | 176003 |
| BaSO <sub>4</sub>                     | 2.4 mg/L                     |                                     |          |         |        |

### REMARKS:

----- A. MILLER / FILE  
RED TANK 23 SWD

Petrolite Oilfield Chemicals Group

Respectfully submitted,  
STEVE TIGERT

# TRETOLITE

Chemicals and Services



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713 558-5200 • Telex: 4620346 • FAX: 713 589-4737

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(505) 746-3580 Fax

## WATER ANALYSIS REPORT

Company : POGO PRODUCING  
Address : MIDLAND, TEXAS  
Lease : CALMON #5  
Well : SWD  
Sample Pt. : UNKNOWN

Date : 09/03/93  
Date Sampled : 09/02/93  
Analysis No. : 330

| ANALYSIS                                           | mg/L                  | * meq/L              |
|----------------------------------------------------|-----------------------|----------------------|
| 1. pH                                              | 5.1                   |                      |
| 2. H <sub>2</sub> S                                | 0 PPM                 |                      |
| 3. Specific Gravity                                | 1.165                 |                      |
| 4. Total Dissolved Solids                          | 261670.1              |                      |
| 5. Suspended Solids                                | NR                    |                      |
| 6. Dissolved Oxygen                                | NR                    |                      |
| 7. Dissolved CO <sub>2</sub>                       | NR                    |                      |
| 8. Oil In Water                                    | NR                    |                      |
| 9. Phenolphthalein Alkalinity (CaCO <sub>3</sub> ) |                       |                      |
| 10. Methyl Orange Alkalinity (CaCO <sub>3</sub> )  |                       |                      |
| 11. Bicarbonate                                    | HCO <sub>3</sub> 61.0 | HCO <sub>3</sub> 1.0 |
| 12. Chloride                                       | Cl 161880.0           | Cl 4566.4            |
| 13. Sulfate                                        | SO <sub>4</sub> 50.0  | SO <sub>4</sub> 1.0  |
| 14. Calcium                                        | Ca 16400.0            | Ca 818.4             |
| 15. Magnesium                                      | Mg 3338.4             | Mg 274.7             |
| 16. Sodium (calculated)                            | Na 79900.7            | Na 3475.5            |
| 17. Iron                                           | Fe 40.0               |                      |
| 18. Barium                                         | Ba NR                 |                      |
| 19. Strontium                                      | Sr NR                 |                      |
| 20. Total Hardness (CaCO <sub>3</sub> )            | 54700.0               |                      |

## PROBABLE MINERAL COMPOSITION

| *milli equivalents per Liter                    | Compound                           | Equiv wt | X meq/L | = mg/L |
|-------------------------------------------------|------------------------------------|----------|---------|--------|
| 818 *Ca <----- *HCO <sub>3</sub>                | Ca(HCO <sub>3</sub> ) <sub>2</sub> | 81.0     | 1.0     | 81     |
| ----- /----->                                   | CaSO <sub>4</sub>                  | 68.1     | 1.0     | 71     |
| 275 *Mg -----> *SO <sub>4</sub>                 | CaCl <sub>2</sub>                  | 55.5     | 816.3   | 45298  |
| ----- <----- /                                  | Mg(HCO <sub>3</sub> ) <sub>2</sub> | 73.2     |         |        |
| 3475 *Na -----> *Cl                             | MgSO <sub>4</sub>                  | 60.2     |         |        |
| -----                                           | MgCl <sub>2</sub>                  | 47.6     | 274.7   | 13075  |
| Saturation Values Dist. Water 20 C              | NaHCO <sub>3</sub>                 | 84.0     |         |        |
| CaCO <sub>3</sub> 13 mg/L                       | Na <sub>2</sub> SO <sub>4</sub>    | 71.0     |         |        |
| CaSO <sub>4</sub> * 2H <sub>2</sub> O 2090 mg/L | NaCl                               | 58.4     | 3475.5  | 203106 |
| BaSO <sub>4</sub> 2.4 mg/L                      |                                    |          |         |        |

### REMARKS:

----- A. MILLER / FILE

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Respectfully submitted,  
STEVE TIGERT