

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

5. Lease Designation and Serial No.
NM-77060

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
Red Tank 34 Federal #2

9. API Well No.
30-025-31932

10. Field and Pool, or Exploratory Area
W. Red Tank Delaware

11. County or Parish, State
Lea County, NM

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

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)
1980' FNL & 660' FEL, Section 34, T22S, R32E

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

TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> 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 respectfully request permission to dispose of off-lease produced water from the above well via 6" poly line into the Red Tank 28 Federal #3 SWD located NW/4, NE/4, Section 28, T22S, R32E, Lea County. The Red Tank 28 Federal #3 SWD is an approved disposal well per Administrative Order SWD-526 (Attached).

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APR 14 2 23 AM '94
BUREAU OF LAND MGMT.
HOBBS, NM.

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APR 15 12 24 PM '94
CALC. AREA

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

Signed Barrett R. Shaw Title Senior Operations Engineer Date April 7, 1994

(This space for Federal or State office use)

Approved by Orig. Signed by Shannon J. Shaw Title Petroleum Engineer Date 5/12/94

Conditions of approval, if any:

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MAY 1 1961

OCD HUBBS
OFFICE



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carlsbad Resource Area Headquarters

P. O. Box 1778

Carlsbad, New Mexico 88220

April 7, 1994

OPERATOR: Pogo Producing Company Lease No. NM-77060

WELL NO. & NAME Red Tank 34 Federal #2

LOCATION: SE 1 NE 1, Sec. 34, T. 22 S., R. 32 E., Eddy County, N.M.
Lea

The check list below indicates the information needed before your Waste or Salt Water Disposal method can be approved:

<u>Brushy Canyon/Bone Spring</u>	Name(s) of formation(s) producing water on the lease.
<u>172 Total BBLS</u>	Amount of water produced from each formation in barrels per day.
<u>Attached</u>	A water analysis of produced water from each zone show- in at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates.
<u>500 BBL F.G. Tank</u>	How water is stored on the lease.
<u>6" Poly Line</u>	How water is moved to disposal facility.
<u>Pogo Producing Co.</u> <u>Red Tank 28 Fed. #3 SWD</u>	Operator's name, well name and location, by $\frac{1}{4}$ 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.

Petroleum Engineer Technician

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MAY 14 1964

U.S. AIR FORCE
OFFICE

TRETOLITE DIVISION(505) 746-3588
Fax (505) 746-3580Reply to:
P.O. Box FF
Artesia, NM
88211-7531**WATER ANALYSIS REPORT**
-----Company : POGO PRODUCING
Address : MIDLAND, TX
Lease : RT 34
Well : #2
Sample Pt. : WELLHEADDate : 3/17/94
Date Sampled : 3/16/94
Analysis No. : 628

ANALYSIS		mg/L		* meq/L
-----		----		-----
1. pH		5.8		
2. H ₂ S		NEG		
3. Specific Gravity		1.175		
4. Total Dissolved Solids		238062.9		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO ₂		NR		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO ₃)				
10. Methyl Orange Alkalinity (CaCO ₃)				
11. Bicarbonate	HCO ₃	183.0	HCO ₃	3.0
12. Chloride	Cl	146970.0	Cl	4145.8
13. Sulfate	SO ₄	75.0	SO ₄	1.6
14. Calcium	Ca	15040.0	Ca	750.5
15. Magnesium	Mg	2657.4	Mg	218.6
16. Sodium (calculated)	Na	73137.5	Na	3181.3
17. Iron	Fe	NR		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO ₃)		48500.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt X meq/L	= mg/L
-----		-----	-----	-----
750 *Ca <----- *HCO ₃	3	Ca(HCO ₃) ₂	81.0	243
----- /----->		NaHCO ₃	69.1	106
219 *Mg -----> *SO ₄	2	CaCl ₂	55.5	41392
----- <----- /		Mg(HCO ₃) ₂	73.2	
3181 *Na -----> *Cl	4146	MgSO ₄	60.2	
-----		MgCl ₂	47.6	218.6 10408
Saturation Values Dist. Water 20 C		NaHCO ₃	84.0	
CaCO ₃ 13 mg/L		Na ₂ SO ₄	71.0	
CaSO ₄ * 2H ₂ O 2090 mg/L		NaCl	58.4	3181.3 185914
BaSO ₄ 2.4 mg/L				

REMARKS:

Petrolite Oilfield Chemicals Group

Respectfully submitted,
A. MILLER

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SCALE TENDENCY REPORT

Company : POGO PRODUCING
Address : MIDLAND, TX
Lease : RT 34
Well : #2
Sample Pt. : WELLHEAD

Date : 3/17/94
Date Sampled : 3/16/94
Analysis No. : 628
Analyst : A. MILLER

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

S.I. =	0.1	at	60 deg. F	or	16 deg. C
S.I. =	0.2	at	80 deg. F	or	27 deg. C
S.I. =	0.2	at	100 deg. F	or	38 deg. C
S.I. =	0.2	at	120 deg. F	or	49 deg. C
S.I. =	0.2	at	140 deg. F	or	60 deg. C

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

S =	942	at	60 deg. F	or	16 deg C
S =	1047	at	80 deg. F	or	27 deg C
S =	1110	at	100 deg. F	or	38 deg C
S =	1192	at	120 deg. F	or	49 deg C
S =	1266	at	140 deg. F	or	60 deg C

Petrolite Oilfield Chemicals Group

Respectfully submitted,
A. MILLER

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MAY 18 1984

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OFFICE**