

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Conservation Division  
811 S. 1st St.  
Artesia, NM 88210

FORM APPROVED  
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 recomplete to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

JUL 29 1997

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)

1650' FNL & 1650' FEL, Section 21, T24S, R29E

5. Lease Designation and Serial No.

NM-86908

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Mitchell 21 Federal #1 Btry

9. API Well No.

30-015-28559

10. Field and Pool, or Exploratory Area

Corral Draw Delaware

11. County or Parish, State

Eddy County, NM

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 respectfully request permission to dispose of off-lease produced water from the above battery via 3" poly line into the River Bend Federal #8 SWD located NE/4, NW/4, Section 23, T24S, R29E, Eddy County. The River Bend Federal #8 SWD is an approved disposal well per Administrative Order SWD-619 (Attached).

Currently three wells produce into the Mitchell 21 Federal #1 Battery: Mitchell 21 Federal #1, #2 and #3 for a total of 132 BWPD. Water analysis for all three wells are attached.

RECEIVED  
1997 JUL 18 A 10:32  
BUREAU OF LAND MGMT.  
CARLSBAD RESOURCE AREA  
Date 7/17/97

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

Signed David R. Glass Title Senior Operations Engineer

(This space for Federal or State office use)

(ORIG. SGD.) DAVID R. GLASS

Approved by  
Conditions of approval, if any:

Title PETROLEUM ENGINEER

Date

JUL 23 1997



## United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Carlsbad Resource Area Headquarters

P. O. Box 1778

Carlsbad, New Mexico 88220

July 17, 1997OPERATOR: Pogo Producing Company Lease No. NM-86908WELL NO. & NAME Mitchell 21 Federal #1 BatteryLOCATION: SW 1/4 NE 1/4, Sec. 21, T. 24 S., R. 29 E., Eddy County, N.M.

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

<u>Delaware</u>	Name(s) of formation(s) producing water on the lease.
<u>132</u>	Amount of water produced from each formation in barrels per day.
<u>Attached</u>	A water analysis of produced water from each zone shown in at least the total dissolved solids, ph., and the concentrations of chlorides and sulfates.
<u>500 BBL FG Tank</u>	How water is stored on the lease.
<u>3" poly line</u>	How water is moved to disposal facility.

<u>Pogo Producing Company</u>	Operator's name, well name and location, by 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.
<u>River Bend Fed. #8 SWD</u>	
<u>NE/4, NW/4</u>	
<u>Sec. 23, T24S, R29E</u>	
<u>Eddy County, NM</u>	

Supervisory Petroleum Engineer Technician

# Endura Products Corp.

P.O. Box 3394 Midland, Texas 79706  
Phone (915) 684-4233 \* Fax (915) 684-4277

## WATER ANALYSIS

Date 12/11/95 Endura Rep TERRY SOLANSKY Code W-0478  
Sampling Point/Date WELL HEAD - 12/9/95 State NEW MEXICO  
Company POGO PRODUCING County EDDY  
Field Lease MITCHELL "21" FEDERAL Well #1

## DISSOLVED SOLIDS

<u>CATIONS</u>	mg/l	me/l
Sodium, Na <sup>+</sup> (Calc.)	85,491	3,717
Total Hardness as Ca <sup>++</sup>	7,040	0
Calcium, Ca <sup>++</sup>	5,640	282
Magnesium, Mg <sup>++</sup>	854	71
Barium, Ba <sup>++</sup>	0	0
Iron (Total) Fe <sup>+++</sup>	74	4

## ANIONS

Chlorides, Cl <sup>-</sup>	144,000	4,056
Sulfate, SO <sub>4</sub> <sup>-</sup>	245	5
Carbonate, CO <sub>3</sub> <sup>-</sup>	0	0
Bicarbonate, HCO <sub>3</sub> <sup>-</sup>	781	13
Sulfide, S <sup>-</sup>	0	0
Total Dissolved Solids (Calc.)	237,085	

## OTHER PROPERTIES

pH <sup>-</sup>	6.340
Specific Gravity, 60-/60 F	1.125
TURBIDITY	300

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO<sub>3</sub></u>	<u>CASO<sub>4</sub>*2H<sub>2</sub>O</u>	<u>CA SO<sub>4</sub></u>	<u>BA SO<sub>4</sub></u>
80	1.1263	-0.8477	-1.1544	-29.4143
120	1.5812	-0.8612	-0.9874	-29.5802
160	2.2747	-0.8857	-0.8393	-29.7997

# Endura Products Corp.

P.O. Box 3394 Midland, Texas 79706  
Phone (915) 684-4233 \* Fax (915) 684-4277

## WATER ANALYSIS

Date 6/19/96 Endura Rep TERRY SOLANSKY Code W-6565  
Sampling Point/Date WELL HEAD - 6/14/96 State NEW MEXICO  
Company POGO PRODUCING CO. County EDDY  
Field Lease MITCHELL 21 FEDERAL Well #2

## DISSOLVED SOLIDS

<u>CATIONS</u>	mg/l	me/l
Sodium, Na <sup>+</sup> (Calc.)	78,499	3,413
Total Hardness as Ca <sup>++</sup>	47,200	0
Calcium, Ca <sup>++</sup>	39,840	1,992
Magnesium, Mg <sup>++</sup>	4,488	374
Barium, Ba <sup>++</sup>	0	0
Iron (Total) Fe <sup>+++</sup>	1	0

## ANIONS

Chlorides, Cl <sup>-</sup>	205,000	5,775
Sulfate, SO <sub>4</sub> <sup>-</sup>	65	1
Carbonate, CO <sub>3</sub> <sup>-</sup>	0	0
Bicarbonate, HCO <sub>3</sub> <sup>-</sup>	171	3
Sulfide, S <sup>-2</sup>	0	0
Total Dissolved Solids (Calc.)	328,064	

## OTHER PROPERTIES

pH <sup>-</sup>	5.200
Specific Gravity, 60°/60 F	1.285
TURBIDITY	>500

Remarks 5219' TO 5235' IN G-3

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO3</u>	<u>CASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	1.8413	-0.2486	-0.7116	-29.6093
120	2.5823	-0.2558	-0.5384	-29.6984
160	3.6958	-0.2367	-0.3466	-29.8830

# Endura Products Corp.

P.O. Box 3394 Midland, Texas 79706  
Phone (915) 684-4233 \* Fax (915) 684-4277

## WATER ANALYSIS

Date 4-24-97 Endura Rep TERRY SOLANSKY Code W-8286  
Sampling Point/Date WELL HEAD / 4-23-97 State NEW MEXICO  
Company POGO PRODUCING CO. County EDDY  
Field Lease MITCHELL "21" FEDERAL Well #3

## DISSOLVED SOLIDS

<u>CATIONS</u>	mg/l	me/l
Sodium, Na <sup>+</sup> (Calc.)	74,382	3,234
Total Hardness as Ca <sup>++</sup>	50,160	0
Calcium, Ca <sup>++</sup>	39,840	1,992
Magnesium, Mg <sup>++</sup>	6,293	524
Barium, Ba <sup>++</sup>	0	0
Iron (Total) Fe <sup>+++</sup>	1	0

## ANIONS

Chlorides, Cl <sup>-</sup>	204,000	5,746
Sulfate, SO <sub>4</sub> <sup>-</sup>	108	2
Carbonate, CO <sub>3</sub> <sup>-</sup>	0	0
Bicarbonate, HCO <sub>3</sub> <sup>-</sup>	122	2
Sulfide, S <sup>-</sup>	0	0
Total Dissolved Solids (Calc.)	324,746	

## OTHER PROPERTIES

pH <sup>-</sup>	5.700
Specific Gravity, 60°/60 F	1.200+
TURBIDITY	165

## SCALING INDICIES

<u>TEMP, F</u>	<u>CA CO<sub>3</sub></u>	<u>CASO<sub>4</sub>*2H<sub>2</sub>O</u>	<u>CA SO<sub>4</sub></u>	<u>BA SO<sub>4</sub></u>
80	2.2255	-0.0315	-0.4964	-29.6133
120	2.9725	-0.0388	-0.3232	-29.7016
160	4.0948	-0.0203	-0.1320	-29.8857
PERF'S	5,236' - 5,266'			

OIL CONSERVATION DIVISION

RECEIVED

FEB 14 1996

ADMINISTRATIVE ORDER SWD-619

MIDLAND

***APPLICATION OF POGO PRODUCING COMPANY FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.***

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), Pogo Producing Company made application to the New Mexico Oil Conservation Division on January 17, 1996, for permission to complete for salt water disposal its Riverbend Federal Well No.8 located 460 feet from the North line and 330 feet from the West line (Unit D) of Section 23, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico.

**THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

**IT IS THEREFORE ORDERED THAT:**

The applicant herein, is hereby authorized to complete its Riverbend Federal Well No.8 located 460 feet from the North line and 330 feet from the West line (Unit D) of Section 23, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico, in such manner as to permit the injection of salt water for disposal purposes into the Bell Canyon and Upper Cherry Canyon formations at approximately 3070 feet to 4470 feet through 2 3/8-inch plastic-lined tubing set in a packer located at approximately 2970 feet.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 614 psi.

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 Bell Canyon and Upper Cherry Canyon formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify 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 test so that the same may be inspected and witnessed.

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

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 9th day of February, 1996.

  
WILLIAM J. LEMAY, Director

S E A L

WJL/BES

xc: Oil Conservation Division - Artesia  
Bureau of Land Management - Carlsbad