

DATE IN <u>6/24/09</u>	SUSPENSE	ENGINEER <u>Jones</u>	LOGGED IN <u>6/24/09</u>	TYPE <u>SWD</u>	PTGW APP NO. <u>0917546016</u>
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**RECEIVED**  
2009 JUN 24 PM 1 01

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



30-015-33929  
Poker Lake Unit #227  
BOPCO, L.P. 6260737

## ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

### Application Acronyms:

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**  
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**  
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**  
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**  
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**  
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR
- [D] Other: Specify \_\_\_\_\_
- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply
- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

SWD-1064  
SWD-1064-A  
601796

*Sent Letter General*  
*7/17/09*

- [3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

Signature

Title

Date

e-mail Address

**BOPCO, L. P.**  
6 DESTA DRIVE, SUITE 3700 (79705)  
P. O. BOX 2760  
MIDLAND, TEXAS 79702

(432) 683-2277

FAX (432) 687-0329

June 23, 2009

**Re: Notice of Application to Amend  
Authorization SWD-1064  
Poker Lake Unit #227  
Eddy County, New Mexico  
File: 100-WF: PLU227.C108**

Oil Conservation Division  
Attention: William Jones  
1220 S. St. Francis  
Santa Fe, New Mexico 87505

Mr. Jones:

Enclosed please find BOPCO, L.P.'s application to amend Authorization SWD-1064 for the Poker Lake Unit #227, located in Section 30, T24S, R30E, Eddy County, New Mexico. It is our intention to plug back to the Upper Delaware and add perforations and to abandon the Lower Delaware injection perfs as shown on the attached well-bore sketch.

The subject well is on Federal land and a complete copy of the application has been sent to the BLM's Carlsbad office via Certified Mail. Please find a copy of the notice attached. I will provide a copy of the signed receipt card when it returns.

If additional information is required, please contact Ann Moore at the letterhead address, phone number or via email at [camoore@basspet.com](mailto:camoore@basspet.com)

Sincerely,



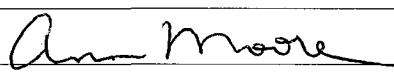
Ann Moore  
Senior Regulatory Clerk

cam

Attachments

RECEIVED OCD  
2009 JUN 24 A 11:13

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE : \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_ ☒ Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_ ☒ Yes \_\_\_\_\_ No
- II. OPERATOR: BOPCO, L. P.  
ADDRESS : P. O. BOX 2760 Midland TX 79705  
CONTACT PARTY : Ann Moore PHONE: (432)683-2277
- III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes ☒ No  
If yes, give the Division order number authorizing the project AMENDMENT OF SWD-1064
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the 'Proof of Notice' section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Ann Moore TITLE: Sr. Regulatory Clerk  
SIGNATURE:  DATE: 06/23/2009  
E-MAIL ADDRESS: camoore@basspet.com
- \* If the information required under Sections VI, VII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal: September 13, 2006 Application for SWD-1064

### III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

III. Well Data

A. 1) Lease name:

Poker Lake Unit

Well #:

227

Section:

30P

Township:

24S

Range:

30E

Footage:

330' FNL & 560' FEL

2) Casing Info.

Casing size	Set depth	Sacks cmt	Hole size	TOC	Method
8-5/8" 32# J&K 55	540'	560	12-1/4"	Surface	CIRCULATED
7" 23# 180	3700'	485	7-7/8"	Surface	SQUEEZED
4-1/2" 11.6# 155	7605'	716	6-1/8"	Surface	PERF & SQUEEZE*
* 4-1/2" Perfed @ ~4830 above previous TOC @ 4840' determined by TS. Squeezed w/ additional 525 sxs Class C + additives & circulated to surface					

3) Tubing to be used (size, lining material, setting depth):  
2-3/8" 6.5# J-55 Seal tite PVC or similar @ 3750' if all proposed perforations are utilized.

4) Name, model, and depth of packer to be used:  
Baker Lok-Set packer (plast coated ID & nickel coated OD) @ 3750' if all proposed perforations are utilized.

B. 1) Name of the injection formation and, if applicable, the field or pool name:  
The Delaware formation of the Nash Draw (Delaware/BS/Avalon) pool.

2) The injection interval and whether it is perforated or open hole:  
Additional Delaware perfs will be added from 3800-4830' to create the overall injection interval.

3) State if the well was drilled for injection or, if not, the original purpose of the well:  
The captioned well was drilled as a producer, but has been utilized as a disposal well since March of 2007. BOPCO, L.P. is seeking to add perfs in the Delaware to continue disposing of the PLU's produced water.

4) Give the depths of any other perforated intervals and detail on the sacks of cement or BP's used to seal off such perforations:  
The well is currently an SWD with Delaware perfs at 6968-7347'. Delaware perfs at 5450-5695' were squeezed on 8-22-07 w/ 100 sxs Thixotropic cmt & 100 sxs Class C + additives. Perfs @ 6200-6640' were squeezed on 10-23-07 with 100 sxs Thixotropic Cmt & 120 sxs Class C + additives. A CIBP will be set at 4950' & capped w/ 35' Class C to permanently abandon these lower squeezed perfs and the existing open perfs from 6968-7347'.

5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any:  
Higher: None Lower: Bone Spring Lime @ 7373'

C-108 DATA

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

Well Name	No.	API	Operator	Type	Location	Surface Casing	Construction Intermediate Casing	Production Casing	Tubing	Spud Date	Comp Date	TD	Perforations	Stimulation
Poker Lake Unit	241	30-015-34308	BOPCO	Producer	840' FSL& 2030'	11-3/4" 42# @530,	NONE	5-1/2" @ 7565', c/850	2-7/8" @ 215/2006	4/1/2006	7570'	7220-7425'		TI stimulation for all perfs 245m gals PW & 20000# 14/30 LiteProp
			FEL. S33 T23S-		1980' FNL, 785'	13-3/8" 48# @680"	9-5/8" 36# @ 3492', CTS w/1425 sxs	SX TOC 2920' IS 5-1/2" @ 9239', c/910	7457' 2-7/8" @ 718/2006	8/18/2006	7146'	8986-8990'		TI stimulation for all perfs 275 gals
Poker Lake Unit	251H	30-015-34404	BOPCO	Producer	FEL S30 T24E.	CTS. w/710 sxs		SX w/ TOC @ 3860' by 6746'						PW, 1000# 30/50 Bauxite, 169234# 20/40 Ottawa, 47616# 20/40 SLC 2083# 14/30 LiteProp

Soft rock  
Poker Lake

- VII. Attach data on the proposed operation, including:
- Proposed average and maximum daily rate and volume of fluids to be injected: **3,000 BWPD**
  - Whether the system is open or closed: **closed**
  - Proposed average and maximum injection pressure: **600 psi average, 760 psi maximum**
  - Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water: **water will be produced from same reservoir (Delaware).**
  - If injection is for disposal purposes into a zone not productive of oil & gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water: **n/a**

VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with TDS of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval:

Lithologic Detail: **Sand, Shale, Lime Sequences**  
Geological Name: **Delaware Mountain Group**  
Thickness: **3869'**  
Depth: **3504-7373'**

The Rustler Formation is a known source of fresh water throughout this geographic area. Average depth of Rustler is 200-400'. No sources of fresh water are known to exist below the proposed disposal zone.

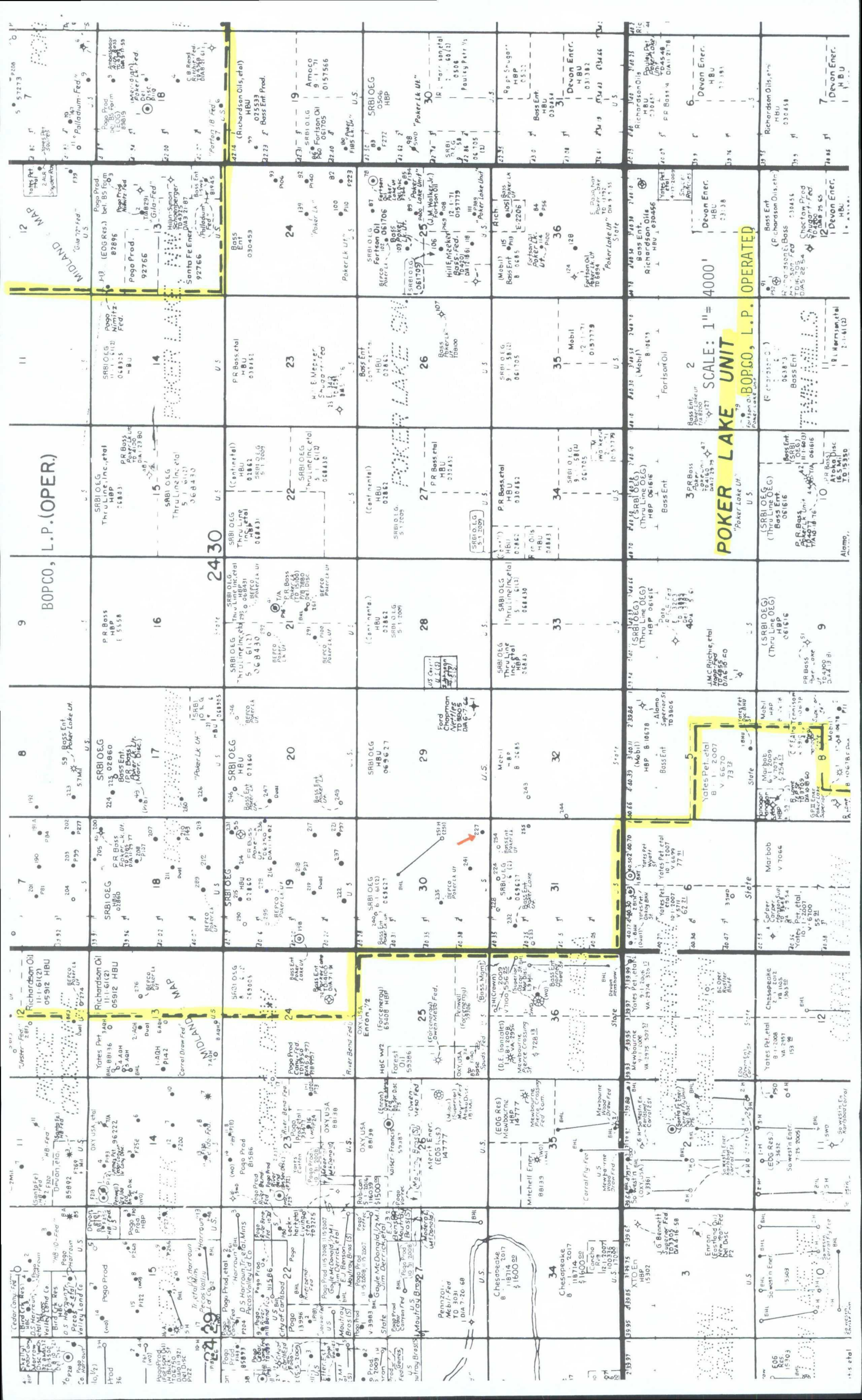
IX. Describe the proposed stimulation program, if any:  
**The new perfs will be perforated and acidized with approximately 50 gallons 7-1/2% NEFE HCl per foot.**

X. Attach appropriate logging and test data on the well (If well logs have been filed with the Division, they need not be resubmitted).  
**Logs previously submitted.**

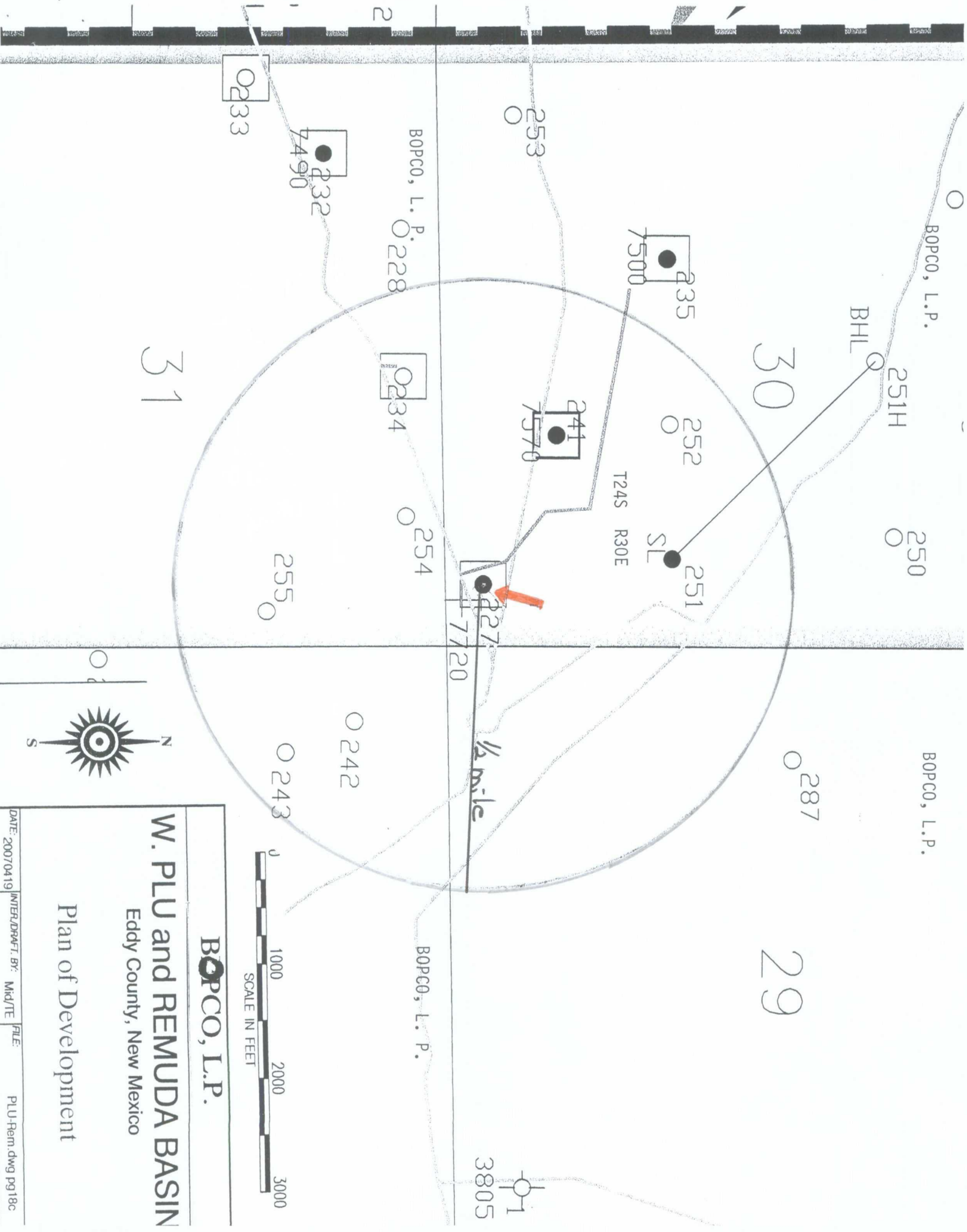
XI. Attach a chemical analysis of fresh water from two or more fresh water wells (If available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.  
**No known fresh water wells within one mile of proposed well.**

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrology connection between the disposal zone and any underground sources of drinking water.  
**Applicant hereby affirms that he has examined the available geologic and engineering data and finds no evidence of open faults, or other hydrologic connection between the disposal zone and any underground source of drinking water.**









**W. PLU and REMUDA BASIN**  
 Eddy County, New Mexico

**BOPCO, L.P.**

**Plan of Development**

DATE: 20070419 | INTER/DRAFT, BY: Mtd/TE | FILE: PLU-Rem.dwg pg18c



LEASE: POKER LAKE UNIT

WELL #:

227

FIELD: NASH DRAW DELAWARE

LOCATION: 330' FSL &amp; 560' FEL, SECTION 30, T24S, R30E

COUNTY: EDDY

ST: NM

API:

30-015-33929

CURRENT

KB: 3237'

GL: 3217'

SPUD DATE: 8/14/2005

COMP DATE: 10/1/2005

## SURFACE CASING

SIZE:	8-5/8"
WT/GRD:	32# K55 0-454'
WT/GRD:	32# J55 454-540'
CSA:	540'
SX:	510 PREM+
SX:	50 PREM+
CIRC:	N
TOC:	53'
TOC:	SURF TOP OUT
HOLE SIZE:	12-1/4" 0-636'

## INTERMEDIATE CASING

SIZE:	7"
WT/GRD:	23# L-80FL4S
CSA:	3700'
SX:	285 INTERFILL A
SX:	100 PREM+
SX:	100 (1") PREM+
CIRC:	Y (via 1")
TOC:	1570' TS
TOC:	SURF (1") SQZD
HOLE SIZE:	7-7/8" 636-3720'

## PRODUCTION CASING

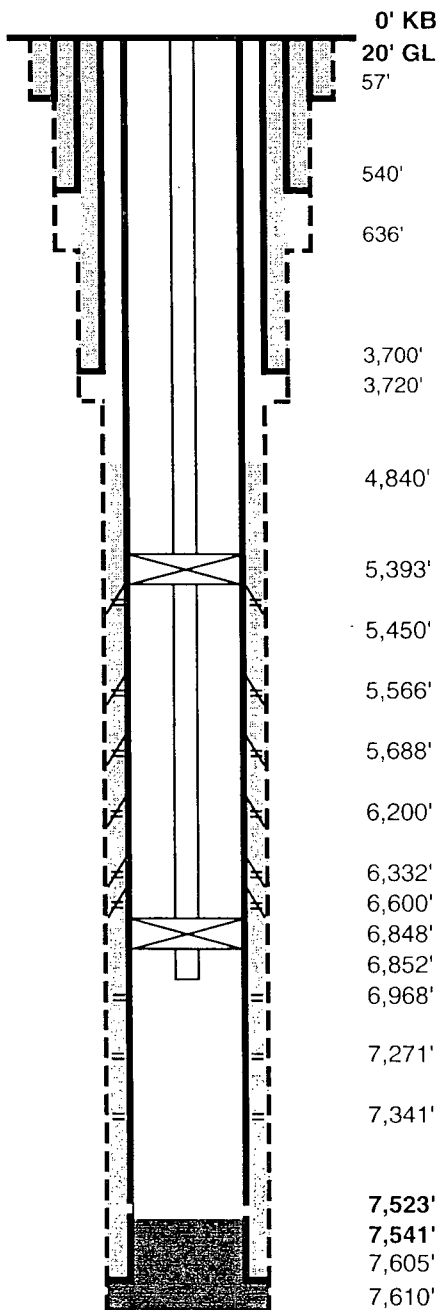
SIZE:	4-1/2"
WT/GRD:	11.6# J55
CSA:	7605'
SX:	270 PREM+ W/N2
CIRC:	NO
TOC:	4840' KB TS
HOLE SIZE:	6-1/8" 3720-7610'

## TUBING DATA

(163 JTS) 2-3/8" 4.7# J-55 Seal Tite IPC TBG  
 2-3/8" NPL IPC PIN - PIN EUE 8RD  
 LOKSET NICKEL PLATED EXT/INT PC PKR  
 PKR @ 5403-5407'

## PERFORATION DATA

09/05 PERF 7271-87' LBC Y, 7341-47' LBC Z  
 F/ "Y" & "Z" 30kg PW PAD+94kg PW W/ 10k#  
 14/30 LP+1kg 7-1/2% HCL ACID+3kg PW FLUSH  
 PERF 6968-91' "U" F/ 29.8kg PW PAD+94kg  
 PW W/ 10k# 14/30 LP+4.2kg PW FLUSH



0' KB

20' GL

57'

16" CONDUCTOR

540'

8-5/8" 32# K55/J55 CSG

636'

12-1/4" HOLE

3,700'

7" 23# L80 CSG

3,720'

7-7/8" HOLE

4,840'

TOC (TS) KB (4820' GL)

5,393'

Pkr

5,450'

Sqzd PERF 5450-82' 8/22/07

5,566'

Sqzd PERF 5566-90' 8/22/07

5,688'

Sqzd PERF 5688-95' 8/22/07

6,200'

Sqzd PERF 6200-34' 10/23/07

6,332'

Sqzd PERF 6332-42' 10/23/07

6,600'

Sqzd PERF 6600-40' 10/23/07

6,848'

Pkr

6,852'

EOT

6,968'

PERF 6968-91' MBC U 1 JSPF 0° PHSG

7,271'

PERF 7271-87' LBC Y 1 JSPF 0° PHSG

7,341'

PERF 7341-47' LBC Z 2 JSPF 0° PHSG

7,523'

FC

7,541'

PBTB TAG

7,605'

4-1/2" 11.6# J55 CSG

7,610'

6-1/8" HOLE (7614' LOG)

PBTB: 7541' (7521' GL)

TD: 7610'

7614' LOG

Updated: 10/30/2007

Author: ezg

Engr: CCC

# PROPOSED WELLBORE DIAGRAM

**LEASE:** POKER LAKE UNIT      **WELL #:** 227  
**FIELD:** NASH DRAW DELAWARE  
**LOCATION:** 330' FSL & 560' FEL, SECTION 30, T24S, R30E  
**COUNTY:** EDDY      **ST:** NM      **API:** 30-015-33929

**\*PROPOSED\***

**NOTE:** An estimated 525 sks of Class C cmt w/ additives will be pumped from 4830'-4832' to surface; 14.2 ppg, 1.25 ft<sup>3</sup>/sk yield  
 The 525 sks includes a 20% excess in order to circulate cmt to surface.

**KB:** 3237'  
**GL:** 3217'  
**SPUD DATE:** 8/14/2005  
**COMP DATE:** 10/1/2005

**SURFACE CASING**

**SIZE:** 8-5/8"  
**WT/GRD:** 32# K55 0-454'  
**WT/GRD:** 32# J55 454-540'  
**CSA:** 540'  
**SX:** 510 PREM+  
**SX:** 50 PREM+  
**CIRC:** N  
**TOC:** 53'  
**TOC:** SURF TOP OUT  
**HOLE SIZE:** 12-1/4" 0-636'

**INTERMEDIATE CASING**

**SIZE:** 7"  
**WT/GRD:** 23# L-80FL4S  
**CSA:** 3700'  
**SX:** 285 INTERFILL A  
**SX:** 100 PREM+  
**SX:** 100 (1") PREM+  
**CIRC:** Y (via 1")  
**TOC:** 1570' TS  
**TOC:** SURF (1") SQZD  
**HOLE SIZE:** 7-7/8" 636-3720'

**PRODUCTION CASING**

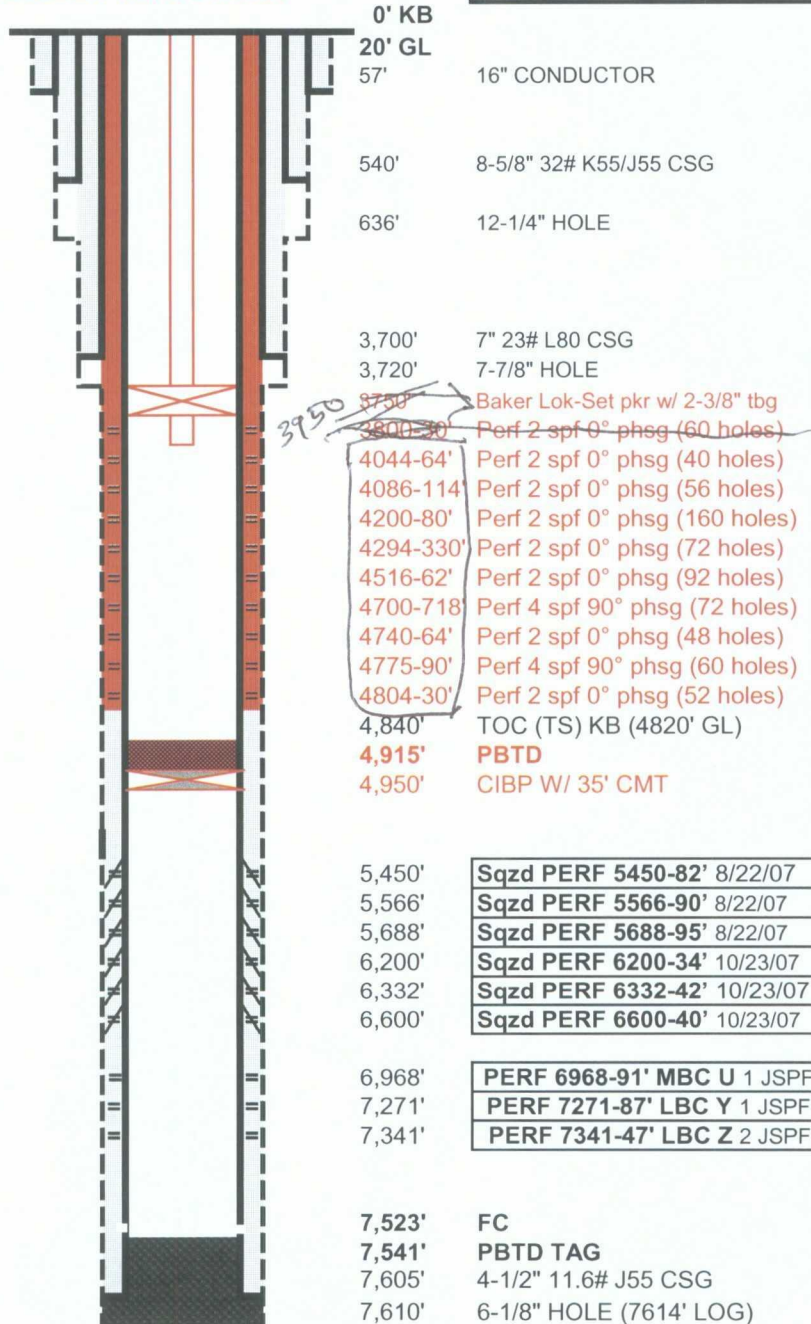
**SIZE:** 4-1/2"  
**WT/GRD:** 11.6# J55  
**CSA:** 7605'  
**SX:** 270 PREM+ W/N2  
**CIRC:** NO  
**TOC:** 4840' KB TS  
**HOLE SIZE:** 6-1/8" 3720-7610'

**TUBING DATA**

(163 JTS) 2-3/8" 4.7# J-55 Seal Tite IPC TBG  
 2-3/8" NPL IPC PIN - PIN EUE 8RD  
 LOKSET NICKEL PLATED EXT/INT PC PKR  
 PKR @ 5403-5407'

**PERFORATION DATA**

09/05 PERF 7271-87' LBC Y, 7341-47' LBC Z  
 F/ "Y" & "Z" 30kg PW PAD+94kg PW W/ 10k#  
 14/30 LP+1kg 7-1/2% HCL ACID+3kg PW FLUSH  
 PERF 6968-91' "U" F/ 29.8kg PW PAD+94kg  
 PW W/ 10k# 14/30 LP+4.2kg PW FLUSH



**PBTD: 7541' (7521' GL)**  
**TD: 7610'**  
**7614' LOG**

Updated: 6/5/2009  
 Author: ezg  
 Engr: CCC

# Affidavit of Publication

State of New Mexico,  
County of Eddy, ss.

Kathy McCarroll, being first duly sworn, on oath says:

That she is the Classified Supervisor of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

June 12	2009
June 13	2009
June 14	2009
	2009

That the cost of publication is **\$127.91** and that payment thereof has been made and will be assessed as court costs.

*Kathy McCarroll*

Subscribed and sworn to before me this

16<sup>th</sup> day of June, 2009  
*Stephanie Dobson*

My commission expires 1/25/2010  
Notary Public



June 12, 13,  
and 14, 2009

## NOTICE OF APPLI CATION FOR SALT WATER DISPOSAL WELL PERMIT

BOPCO, L.P. has ap  
plied to the New  
Mexico Oil Conserva  
tion Division for an  
amendment to the  
permit to dispose of  
produced salt water  
or other oil and gas  
waste into a porous  
formation productive  
of oil or gas.

The applicant pro  
poses to dispose of  
produced water or  
other oil and gas  
waste into the Poker  
Lake Unit #227 (Del  
aware Formation).  
The proposed disposal  
well is located 33 miles  
southeast of Carlsbad,  
New Mexico in Sec  
tion 30, T24S, r 30 E,  
Eddy County, New  
Mexico. The produced  
salt water will be dis  
posed at a subsurface  
depth of 3784'-4836'.

Any questions con  
cerning this applica  
tion should be di  
rected to Ann Moore,  
Senior Regulatory  
Clerk, BOPCO, L.P.,  
P.O. Box 2760, Mid  
land, Texas 79702-  
2760, (432) 683-2277.

Interested parties  
must file objections or  
requests for hearing  
with the Oil Conserva  
tion Division, 1220 S.  
St Francis Dr., Santa  
Fe, New Mexico 87505  
within 15 days.

*cast different?*

RECEIVED  
JUN 22 2009  
BOPCO WTD PRODUCTION

2. Article Number

7160 3901 9846 3455 1781

3. Service Type **CERTIFIED MAIL**4. Restricted Delivery? (Extra Fee) ☐ Yes

1. Article Addressed to:

LINE 1-

Bureau of Land Management  
620 E. Greene Street  
Carlsbad, NM 88220-6292

PS Form 3811, January 2005

Domestic Return Receipt

## COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly)

B. Date of Delivery

C. Signature

X

☐ Agent  
☐ Addressee  
☐ Yes  
☐ No

D. Is delivery address different from item 1?  
If YES, enter delivery address below:

Thank you for using Return Receipt Service

FOLD AND TEAR HERE

US Postal Service

**Certified  
Mail  
Receipt**
*Domestic Mail Only  
No Insurance  
Coverage Provided*

Postage

\$

Certified Fee

Return Receipt Fee  
(Endorsement Required)

Restricted Delivery Fee  
(Endorsement Required)

Total Postage &amp; Fees

\$

Postmark  
Here

Sent To:

Bureau of Land Management  
620 E. Greene Street  
Carlsbad, NM 88220-6292

PLU 227  
SWD  
Amendment

6-23-09

Certified Mail Receipt

RETURN RECEIPT REQUESTED

7160 3901 9846 3455 1781

PS Form 3800, January 2005

US Postal Service

2

7160 3901 9846 3455 1781

**CERTIFIED MAIL**  
 RETURN ADDRESS REQUIRED

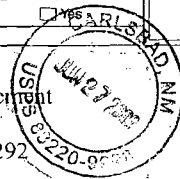
PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT  
OF RETURN ADDRESS FOLD AT DOTTED LINE

Received by (Please Print Clearly)	B. Date of Delivery
<i>A. Orsuel</i>	
Signature	<input type="checkbox"/> Agent <input type="checkbox"/> Addressee
D. Is delivery address different from item? If YES, enter delivery address below:	
<input type="checkbox"/> Yes <input type="checkbox"/> No	

7160 3901 9846 3455 1781

3. Service Type	CERTIFIED MAIL
4. Restricted Delivery? (Extra Fee)	<input type="checkbox"/> Yes
1. Article Addressed to:	

Bureau of Land Management  
620 E. Greene Street  
Carlsbad, NM 88220-6292



PS Form 3811, January 2005

Domestic Return Receipt

7160 3901 9846 3455 1781

<b>US Postal Service</b> <b>Certified Mail Receipt</b> <i>Domestic Mail Only</i> <i>No Insurance</i> <i>Coverage Provided</i>	Postage	\$	Postmark Here
	Certified Fee		
	Return Receipt Fee (Endorsement Required)		
	Restricted Delivery Fee (Endorsement Required)		
	Total Postage & Fees	\$	
Sent To:			
Bureau of Land Management 620 E. Greene Street Carlsbad, NM 88220-6292			
PS Form 3800, January 2005		US Postal Service	
		6-23-09 Certified Mail Receipt	
		2	

PLU 227  
SWD  
Amendment



**Jones, William V., EMNRD**

---

**From:** Moore, Ann [CAMoore@BassPet.Com]  
**Sent:** Wednesday, July 22, 2009 7:31 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Cruz, Carlos  
**Subject:** RE: Disposal application from BEPCO LP to use the upper Delaware in 30-015-33929 (Poker Lake Unit #227)  
**Attachments:** WELL BORE. PLU 251H.pdf; PLU 227 formation tops.doc

William:

In answer to your questions:

1. See attached formation tops for the PLU 227 ✓
2. See attached well-bore sketch with the top of the Lamar and Bell Canyon marked. ✓
3. BOPCO, L. P. does not plan to test the upper Delaware for hydrocarbons as our petro-physical analysis of these zones indicates that they are wet. ✓
4. The PLU 68 is producing from the upper Delaware at 4376-88' and is approximately 7 miles away. ✓
5. The newspaper article was done based on the initial information my supervisor gave me. When he chose the actual perfs, they were slightly different, but within the overall interval I had advertised. ✓

Ann Moore  
Senior Regulatory Clerk  
BOPCO, L. P.  
(432) 683-2277  
[camoore@basspet.com](mailto:camoore@basspet.com)

---

**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Friday, July 17, 2009 6:17 PM  
**To:** Moore, Ann  
**Cc:** Ezeanyim, Richard, EMNRD; Reeves, Jacqueta, EMNRD  
**Subject:** Disposal application from BEPCO LP to use the upper Delaware in 30-015-33929 (Poker Lake Unit #227)

Hello Ann,

Questions primarily for your geologist:

- 1) Send formation tops from the Rustler top to the Bone Spring
- 2) The offsetting horizontal well has a reported cement top that is lower than BEPCO's planned perforations in the subject well. Please send a well bore diagram of the horizontal well showing cement placement and casing and mark the TVD top of the Delaware on the diagram. Is BEPCO willing to lower the planned injection perforations or squeeze cement the Horizontal well?
- 3) How does BEPCO plan to test the upper Delaware in the subject well for hydrocarbon productivity? Or how do you know it does not need to be tested?
- 4) Is there any offsetting production in this upper Delaware? How far away?
- 5) Why does the Newspaper Notice include slightly different proposed intervals than the application?

Thank You,

William V. Jones PE  
New Mexico Oil Conservation Division  
1220 South St. Francis  
Santa Fe, NM 87505  
505-476-3448

**Jones, William V., EMNRD**

---

**From:** Moore, Ann [CAMoore@BassPet.Com]  
**Sent:** Wednesday, July 22, 2009 8:14 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Cruz, Carlos  
**Subject:** RE: Disposal application from BEPCO LP to use the upper delaware in 30-015-33929 (Poker Lake Unit #227)

William:

I forgot the second part of your 2<sup>nd</sup> question. We will exclude the perms at 3800-30', that correlate to the TOC in PLU 251H, The top set of perms will be 4044-64'.

Ann Moore  
Senior Regulatory Clerk  
BOPCO, L. P.  
(432) 683-2277  
[camoore@basspet.com](mailto:camoore@basspet.com)

---

**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Friday, July 17, 2009 6:17 PM  
**To:** Moore, Ann  
**Cc:** Ezeanyim, Richard, EMNRD; Reeves, Jacqueta, EMNRD  
**Subject:** Disposal application from BEPCO LP to use the upper delaware in 30-015-33929 (Poker Lake Unit #227)

Hello Ann,

Questions primarily for your geologist:

- 1) Send formation tops from the Rustler top to the Bone Spring
- 2) The offsetting horizontal well has a reported cement top that is lower than BEPCO's planned perforations in the subject well. Please send a well bore diagram of the horizontal well showing cement placement and casing and mark the TVD top of the Delaware on the diagram. Is BEPCO willing to lower the planned injection perforations or squeeze cement the Horizontal well?
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- 5) Why does the Newspaper Notice include slightly different proposed intervals than the application?

Thank You,

William V. Jones PE  
New Mexico Oil Conservation Division  
1220 South St. Francis  
Santa Fe, NM 87505  
505-476-3448

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## **Poker Lake Unit #227 SWD – Formation Tops**

T/Rustler – 60'

T/Salt – 630'

Lamar – 3504'

T/ Bell Canyon – 3538'

T/Cherry Canyon – 4438'

T/ Brushy Canyon – 5715'

T/ Bone Spring Lime – 7374'

T/ Avalon – 7398'

LEASE: POKER LAKE UNIT WELL #: 251H HORIZONTAL  
 FIELD: NASH DRAW (DELAWARE)  
 LOCATION: SL: 1980' FSL & 785' FEL, SECTION 30, T24S, R30E  
BHL: 1626.6' FNL & 2275' FEL, SECTION 30, T24S, R30E  
 COUNTY: EDDY ST: NM API# 30-015-34404

**\*\*CURRENT\*\***

SEE HORIZONTAL SKETCH

HORIZONTAL KOP 6737'

KB: 3197.5  
 GL: 3180.3  
 SPUD DATE: 7/8/2006  
 COMP DATE: 11/15/2006

**SURFACE CASING**

SIZE: 13-3/8"  
 WT/GRD: 48# H-40  
 SET @: 680'  
 SX CMT: 360 LT PREM+  
 SX CMT: 350 PREM+  
 CIRC: YES 403 SX  
 TOC: SURF  
 HOLE SIZE: 17-1/2" 0-680'

**INTERMEDIATE CASING**

SIZE: 9-5/8"  
 WT/GRD: 36# K-55  
 SET @: 3492'  
 SX CMT: 1000 HALCO PREM  
 SX CMT: 250 PREM / C  
 SX CMT: 175 HALCO PREM C  
 CIRC: N  
 TOC: SURF THRU 1" TOPOUT  
 HOLE SIZE: 12-1/4" 680-3492'

**PRODUCTION CASING**

SIZE: 5-1/2"  
 WT/GRD: 15.5# J55 0-5746'  
 WT/GRD: 17# J55 5746-9239'  
 SET @: 9239'  
 SX CMT: 460 PREM+  
 SX CMT: 450 PREM  
 CIRC: N  
 TOC: 3877' TS (KB)  
 HOLE SIZE: 8-3/4" 3492-9240'

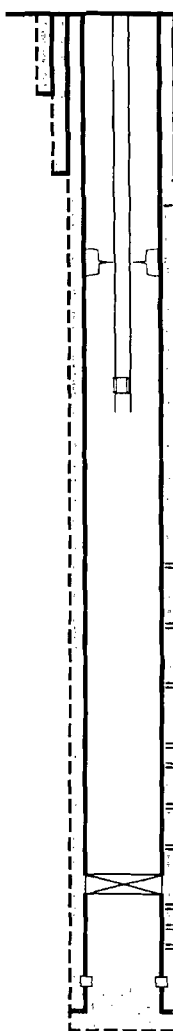
**TUBING DATA**

(197 jts) 2-7/8" tbg, TAC @ 6136.53', (17 jts)  
 2 7/8" tbg, SS tbg sub, SN @ 6670.5', Perf sub,  
 2 7/8" Mud anchor w/ BP&C

**PERFORATION DATA**

SEE HISTORY FOR DETAILS ON PERFS & STIMULATIONS

VERTICAL HOLE 0: 6737' MD :: @ 6737' 12" / 100' FT CURVE TO 7453' 90° BEND NORTH WEST TO 9240'



17.2' GL

0' KB

680' 13-3/8" 48# CSG 17-1/2" HOLE

T/Lamar 3468'

3492' 9-5/8" 36# CSG 12-1/4" HOLE

T/Bell Canyon 3494'

3877' TOC (TS) KB

6137' TAC

5745.9' 5-1/2" 15.5# LTC

5746' 5-1/2" 17# LTC X BTC XO (19')

6672' SN

6706' EOT

6737' HORIZONTAL KOP

NOTE: POSSIBLE CSG LK BLW 7028' IN BEND BETWEEN VERTICAL & LATERAL

7,888' PERF 7888-92' STG 4B 6 JSPF  
 60° PHSG (24 HOLES) REPERF  
 48XL (24 HOLES TTL 48 HOLES)

8,008' PERF 8008-12' LBC (STG 4)  
 6 JSPF 60° (24 HOLES)

8,358' PERF 8358-62' LBC  
 6 JSPF 60° PHSG (24 SHOTS)

8,758' PERF 8758-62' LBC  
 6 SPF 60° PHSG (24 HOLES)

8,986' PERF 8,986-90' LBC 6 JSPF 60° PHSG  
 (24 HOLES) REPERF TTL 48 HOLES

8,990' BOTTOM OPEN PERF INTERVAL  
 9,060' 10K CIBP

PERFS BELOW CIBP

9,139' PERF 9139-43' LBC (out of zone) 6  
 SPF 60° PHSG (24 HOLES)

9,143' PERF 9,146-50' LBC 6 SPF 60° PHSG  
 (24 HOLES) REPERF TTL 48 HOLES

9,158' PBTD (FC)

9,239' 5-1/2" 17# J-55 BTC

9,240' 8-3/4" HOLE (LOG)

PBTD: 9060' (CIBP)  
 TD: 9240'

Updated: 12/23/2008  
 Author: ezg  
 Engr: CC

## Jones, William V., EMNRD

---

**From:** Moore, Ann [CAMoore@BassPet.Com]  
**Sent:** Thursday, July 23, 2009 9:56 AM  
**To:** Jones, William V., EMNRD  
**Subject:** RE: Disposal application from BEPCO LP to use the upper delaware in 30-015-33929 (Poker Lake Unit #227)

William:

Thank you for the suggestion, but the problem with the well was not a need for more pressure. The problem is that the current disposal interval and the perms we have squeezed in the past, are in communication with our Horned Toad 36 State #1H producing well in T25S, R29E, Sec. 36. We are trying to utilize the well-bore for disposal with what we have to work with.

Please let me know if you need anything else.

Ann Moore  
Senior Regulatory Clerk  
BOPCO, L. P.  
(432) 683-2277  
[camoore@basspet.com](mailto:camoore@basspet.com)

---

**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Tuesday, July 21, 2009 12:54 PM  
**To:** Moore, Ann  
**Cc:** Warnell, Terry G, EMNRD  
**Subject:** RE: Disposal application from BEPCO LP to use the upper delaware in 30-015-33929 (Poker Lake Unit #227)

Ann:  
Forgot the following question:

Has Bepco considered running a Step Rate Test to obtain an increased disposal pressure limit? This could potentially enable Bepco to dispose of enough water that the expensive recompletion to an upper interval would not be necessary.

Regards,

William V. Jones PE  
New Mexico Oil Conservation Division  
1220 South St. Francis  
Santa Fe, NM 87505  
505-476-3448

---

**From:** Jones, William V., EMNRD  
**Sent:** Friday, July 17, 2009 5:17 PM  
**To:** 'Moore, Ann'  
**Cc:** Ezeanyim, Richard, EMNRD; Reeves, Jacqueta, EMNRD  
**Subject:** Disposal application from BEPCO LP to use the upper delaware in 30-015-33929 (Poker Lake Unit #227)

Hello Ann,

Questions primarily for your geologist:

- 1) Send formation tops from the Rustler top to the Bone Spring
- 2) The offsetting horizontal well has a reported cement top that is lower than BEPCO's planned perforations in the subject well. Please send a well bore diagram of the horizontal well showing cement placement and casing and



# Injection Permit Checklist (7/17/09)

Case 1064-B R- SWD WFX PMX IPI Permit Date 7/17/09 UIC Qtr (JAS)  
 # Wells 1 Well Name: Poker Lake UNIT #227  
 API Num: (30-) 015-33929 Spud Date: 8/14/05 New/Old: N (UIC primacy March 7, 1982)  
 Footages 330 FSL/560 FEL Unit P Sec 30 Tsp 24S Rge 30E County Eddy  
 Operator: BEPCO, L.P. Contact Conn Moore  
 OGRID: 260737 RULE 5.9 Compliance (Wells) \_\_\_\_\_ (Finan Assur) \_\_\_\_\_

Operator Address: PO. BOX 2760, MIDLAND, TX 79705

Current Status of Well: Lower Del in Well

Planned Work to Well: PLUG BACK, SQZ CMT, Perf ACIDIZE Planned Tubing Size/Depth: 2 3/8

	Sizes Hole.....Pipe	Setting Depths	Cement Sx or Cf	Cement Top and Determination Method
Existing _____ Surface	<u>12 1/4 8 5/8</u>	<u>540</u>	<u>580</u>	<u>CIRC</u>
Existing _____ Intermediate	<u>7 7/8 7 1/2</u>	<u>3700</u>	<u>485</u>	<u>SQZ</u>
Existing _____ Long String	<u>6 7/8 4 1/2</u>	<u>7605</u>	<u>716</u>	<u>Will Perf/SQZ</u>

DV Tool \_\_\_\_\_ Liner \_\_\_\_\_ Open Hole \_\_\_\_\_ Total Depth 4950 CIBP

Well File Reviewed \_\_\_\_\_

Diagrams: Before Conversion ☒ After Conversion ☒ Elogs in Imaging File: \_\_\_\_\_

Intervals:	Depths	Formation	Producing (Yes/No)
Above (Name and Top)			
Above (Name and Top)	<u>3504</u>	<u>DEL TOP</u>	<u>4438</u>
Injection.....	<u>4044</u>	<u>DEL TOP</u>	<u>4438</u>
Interval TOP:	<u>4044</u>	<u>DEL TOP</u>	<u>4438</u>
Injection.....	<u>4830</u>	<u>DEL TOP</u>	<u>4438</u>
Interval BOTTOM:	<u>4830</u>	<u>DEL TOP</u>	<u>4438</u>
Below (Name and Top)	<u>7373</u>	<u>BS</u>	<u>5715</u>

Non-commercial

TOP Deling C.

809

PSI Max. WHIP

No Open Hole (Y/N)

No Deviated Hole?

Sensitive Areas: Capitan Reef Cliff House Salt Depths 630-3504

..... Potash Area (H-T-T-P) Notash Lessee Noticed?

Fresh Water: Depths: 200-400 Wells None Analysis? \_\_\_\_\_ Affirmative Statement ☒

Disposal Fluid Sources: Del same Analysis? \_\_\_\_\_

Disposal Interval Production Potential/Testing/Analysis Analysis: ?

Notice: Newspaper(Y/N) ☒ Surface Owner BLM Mineral Owner(s) \_\_\_\_\_

RULE 26.7(A) Affected Parties: BEPCO operator of Poker Lake UNIT

Area of Review: Adequate Map (Y/N) ☒ and Well List (Y/N) ☒

Active Wells 2 Num Repairs \_\_\_\_\_ Producing in Injection Interval in AOR \_\_\_\_\_

..P&A Wells 0 Num Repairs \_\_\_\_\_ All Wellbore Diagrams Included? \_\_\_\_\_

Questions to be Answered:

TOPS down TO BS.  
STRUCTURE of TOP of DEL  
How will they Test for Production?

Required Work on This Well: SQZ CMT to raise CMT TOP Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_

AOR Repairs Needed: \_\_\_\_\_ Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_

Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_

CAR offset Horiz  
CMT TOP  
Too Low  
monitor  
Breakhead