PTGW1014653048

BOPCO, L.P.
P. O. BOX 2760
MIDLAND, TEXAS 79702

IPI-376

May 25, 2010

TO: TERRY WARNELL

FROM: CARLOS CRUZ

RE: REQUEST FOR MAXIMUM ALLOWABLE SURFACE PRESSURE INCREASE
POKER LAKE UNIT #227
NASH DRAW DELAWARE FIELD
EDDY COUNTY, NEW MEXICO

Delaware Mountain Group
SWD-1064
986 PSI

Dear Sir:

BOPCO, L.P. would like to make a formal request to increase the maximum allowable surface injection pressure from 808 psi to 1,440 psi for the Poker Lake Unit #227.

SWD-1064-A
1394
1968-7347

The Poker Lake Unit #227 (API 30-015-33929) is located 330 feet from the South line and 560 feet from the East line, Unit P of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico. On 5/18/2010 the well was injecting approximately 1,198 bbls of water per day at a surface pressure of 500 psi.

As more of our new drills are put on production and our established wells produce more water it becomes paramount that our SWD operations are optimized. Ensuring the greatest volume of water is disposed of while still remaining under the formation fracture pressure.

4044'-4830'
4930'-7347'
6640'

Findings from the 5/4/2010 Step Rate Test demonstrate that 1,800 psi is in fact the formation fracture pressure. It is therefore requested that a conservative compromise of 1,440 psi be used as the surface injection pressure. 1,440 psi is 80% of the formation fracture pressure and results in a .356 psi/ft gradient. This would allow for approximately 3,600 bbls of water disposed of per day at 2.5 bpm as seen from the SRT data. This would greatly assist in alleviating our water disposal issues while avoiding fracturing the formation.

We appreciate your time and consideration in the above matters and hope our findings are adequate enough to warrant the requested pressure amendments.

Along with this letter please find the following attachments:

- Step Rate Test
- Surface Pressure Chart
- Up-to-date Wellbore Diagram
- Copy of the disposal permit

CARLOS CRUZ

Downhole Profile - Vertical Wells

Well ID: 30-015-33929

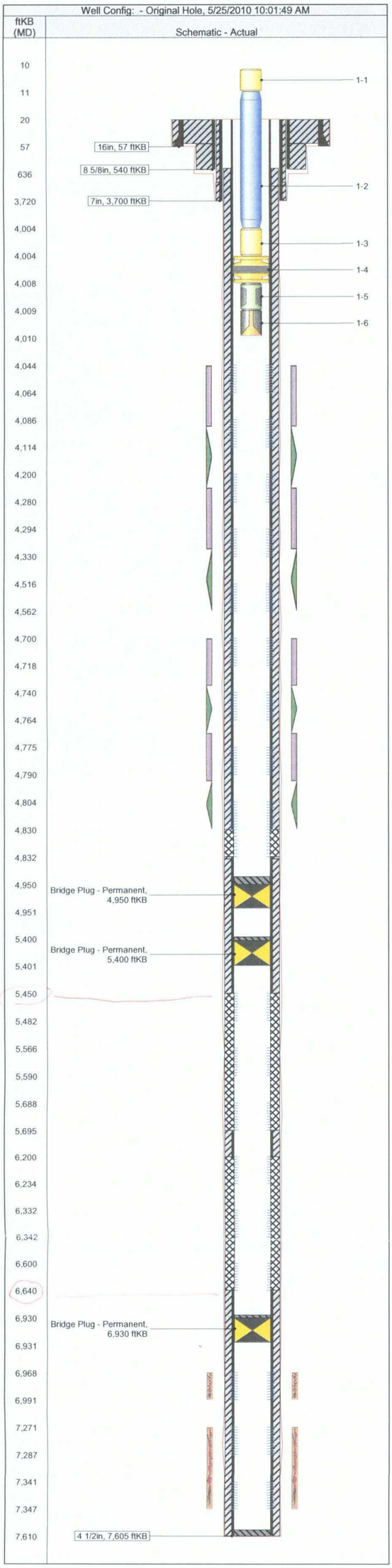
Field: Nash Draw (Del, BS, AV)

BOPCO, L.P. - West Texas

Well Name: Poker Lake Unit #227

Sect: 30 Town: T24S Rng: R30E County: Eddy State: New

Surface Location: 330' FSL & 560' FEL



Well Information

Original KB Elevation (ft)	Ground Elevation (ft)	KB-Ground Distance (ft)	Spud Date	On Production Date
3,237.00	3,217.00	20.00	8/14/2005	10/18/2005

Wellbores

Wellbore Name: Original Hole — **Kick Off Depth (ftKB):**

Size (in)	Act Top (ftKB)	Act Btm (ftKB)
17 1/2	20.0	57.0
12 1/4	57.0	636.0
7 7/8	636.0	3,720.0
6 1/8	3,720.0	7,610.0

Casing Strings

Casing Description	Wellbore	OD (in)	Wt (lbs/ft)	Grade	Top Thread	Set @ (ftKB)
Conductor	Original Hole	16	84.00	J-55		57.0
Surface	Original Hole	8 5/8	32.00	K-55		540.0
Intermediate	Original Hole	7	23.00	L-80		3,700.0
Production	Original Hole	4 1/2	11.60	J-55		7,605.0

Perforations

Perf Date	Top (ftKB)	Btm (ftKB)	Zone	Current Status
8/23/2009	4,044.0	4,064.0	Delaware, Original Hole	Open - Active (4044 - 4064)
8/23/2009	4,086.0	4,114.0	Delaware, Original Hole	Open - Active (4086 - 4114)
8/23/2009	4,200.0	4,280.0	Delaware, Original Hole	Open - Active (4200 - 4280)
8/23/2009	4,294.0	4,330.0	Delaware, Original Hole	Open - Active (4294 - 4330)
8/23/2009	4,516.0	4,562.0	Delaware, Original Hole	Open - Active (4516 - 4562)
8/23/2009	4,700.0	4,718.0	Delaware, Original Hole	Open - Active (4700 - 4718)
8/23/2009	4,740.0	4,764.0	Delaware, Original Hole	Open - Active (4740 - 4764)
8/23/2009	4,775.0	4,790.0	Delaware, Original Hole	Open - Active (4775 - 4790)
8/23/2009	4,804.0	4,830.0	Delaware, Original Hole	Open - Active (4804 - 4830)
8/18/2009	4,830.0	4,832.0	Delaware, Original Hole	Squeezed (4830 - 4832)
3/6/2007	5,450.0	5,482.0	Delaware, Original Hole	Squeezed (5450 - 5482)
3/6/2007	5,566.0	5,590.0	Delaware, Original Hole	Squeezed (5566 - 5590)
3/5/2007	5,688.0	5,695.0	Delaware, Original Hole	Squeezed (5688 - 5695)
3/5/2007	6,200.0	6,234.0	Delaware, Original Hole	Squeezed (6200 - 6234)
3/5/2007	6,332.0	6,342.0	Delaware, Original Hole	Squeezed (6332 - 6342)
3/5/2007	6,600.0	6,640.0	Delaware, Original Hole	Squeezed (6600 - 6640)
9/26/2005	6,968.0	6,991.0	Middle Brushy Cnyn U, Original Hole	Abandoned (6968 - 6991)
9/21/2005	7,271.0	7,287.0	Lwr Brushy Canyon Y, Original Hole	Abandoned (7271 - 7287)
9/21/2005	7,341.0	7,347.0	Lwr Brushy Canyon Z, Original Hole	Abandoned (7341 - 7347)

Tubing Strings

Tubing Description	Run Date	String Length (ft)	Set Depth (ftKB)
Tubing	8/26/2006	3,999.79	4,009.8

No.	Item Description	Jts	OD (in)	Wt (lbs/ft)	Grade	Top (ftKB)
1-1	2 3/8" Nipple IPC Pin/Pin EUE 8rd	1	2 3/8			10.00
1-2	2 3/8" J-55 IPC (Seal-Tite) Tubing	121	2 3/8			10.80
1-3	2 3/8" Nipple IPC Pin/Pin EUE 8rd	1	2 3/8			4,003.58
1-4	4 1/2 43A2 Lokset Plated EPC & IPC box pin	1	3.9			4,004.38
1-5	2 3/8" 1.78" F-Nipple	1	2 3/8			4,008.19
1-6	2 3/8" 1.99" WEG	1	2 3/8			4,009.19

Other Downhole Equipment

Run Date	Description	OD (in)	Top (ftKB)	Btm (ftKB)
8/18/2009	Bridge Plug - Permanent	3.9	4,950.0	4,951.0
8/18/2009	Bridge Plug - Permanent	3.9	5,400.0	5,401.0
8/18/2009	Bridge Plug - Permanent	3.9	6,930.0	6,931.0

Cement

Conductor Cement, 8/14/2005

String: Conductor, 57.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	20.0	57.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Lead	100			

Surface Casing Cement, 8/15/2005

String: Surface, 540.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	53.0	540.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Lead	150		14.50	1.54
Tail	360		14.80	1.35

Top Out Cement, 8/15/2005

String: Surface, 540.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	20.0	53.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Top Out Cement	50		14.80	1.34

Intermediate Casing Cement, 8/25/2005

String: Intermediate, 3,700.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	1,570.0	3,700.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Lead	285	A	11.90	2.45
Tail	100	A	14.80	1.35

Top Out Cement, 8/25/2005

String: Intermediate, 3,700.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	20.0	1,570.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Top Out Cement	100		14.80	1.34

Production Casing Cement, 9/3/2005

String: Production, 7,605.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	4,840.0	7,605.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Lead	270		14.50	1.39
Tail	375		10.50	1.39

Cement Squeeze, 8/24/2007

String: Production, 7,605.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	5,450.0	5,695.0		

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Cement Squeeze				

Cement Squeeze, 10/23/2007

String: Production, 7,605.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	6,200.0	6,640.0		

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Cement Squeeze				

Cement Plug, 8/18/2009

String: Production, 7,605.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	4,915.0	4,950.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Cement Plug				

Cement Plug, 8/18/2009

String: Production, 7,605.0ftKB — **Cement Evaluation Results:**

Downhole Profile - Vertical Wells

Well ID: 30-015-33929

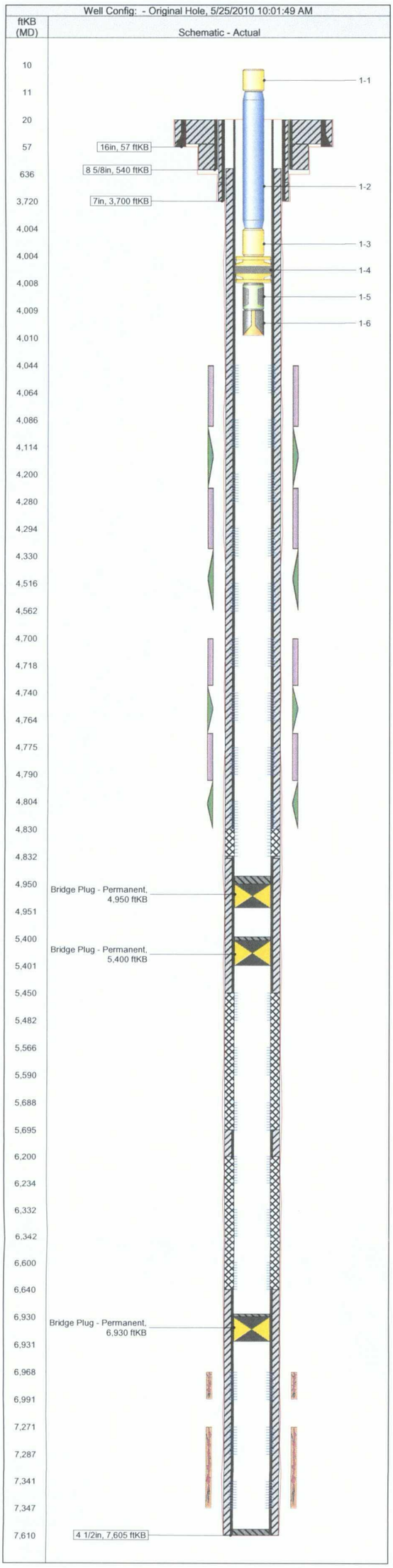
Field: Nash Draw (Del, BS, AV)

BOPCO, L.P. - West Texas

Well Name: Poker Lake Unit #227

Sect: 30 Town: T24S Rng: R30E County: Eddy State: New

Surface Location: 330' FSL & 560' FEL



Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	5,365.0	5,400.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Cement Plug				

Cement

Cement Plug, 8/18/2009

String: Production, 7,605.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	6,895.0	6,930.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Cement Plug				

Cement Squeeze, 8/19/2009

String: Production, 7,605.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	4,830.0	4,832.0		Tagged

Production Casing Cement, 8/20/2009

String: Production, 7,605.0ftKB — **Cement Evaluation Results:**

Stage Number	Stage Top (ftKB)	Stage Bottom (ftKB)	Cmnt Rtrn (bbl)	Top Measurement Method
1	510.0	4,840.0		Tagged

Fluid	Amount (sacks)	Class	Density (lb/gal)	Yield (ft³/sack)
Cement Squeeze	593	C	14.20	1.25

*Step Rate test data sheet

Well Name: PLU #227

1) Input Rate in (BPM) in the GREEN column to have the corresponding Rate in (BPD) calculate automatically
2) Record the rates corresponding injection pressure in the BLUE column
3) If there are excess data points delete the unnecessary values.

Steps (#)	Rate (BPM)	Rate (BPD), x	Injection Pressure (PSI), y
1	1	1440	811
2	1.5	2160	936
3	2	2880	1119
4	2.5	3600	1413
5	3	4320	1844
6	3.5	5040	1694
7	4	5760	1677
8	4.5	6480	2068
9	5	7200	2391
10	2.5	3600	
11	2.75	3960	
12	3	4320	
13	3.25	4680	
14	3.5	5040	
15	3.75	5400	
16	4	5760	
17	4.25	6120	
18	4.5	6480	
19	4.75	6840	
20	5	7200	

** Corrected for friction*

First Line

Slope: 0.353194
y-intercept: 207.4
Correlation: 0.971874

Solve X: 4508.917

Second Line

Slope: -0.115972
y-intercept: 2322.833
Correlation: -0.908557

Solve Y: **1799.924** psi
80% ***1439.939*** psi

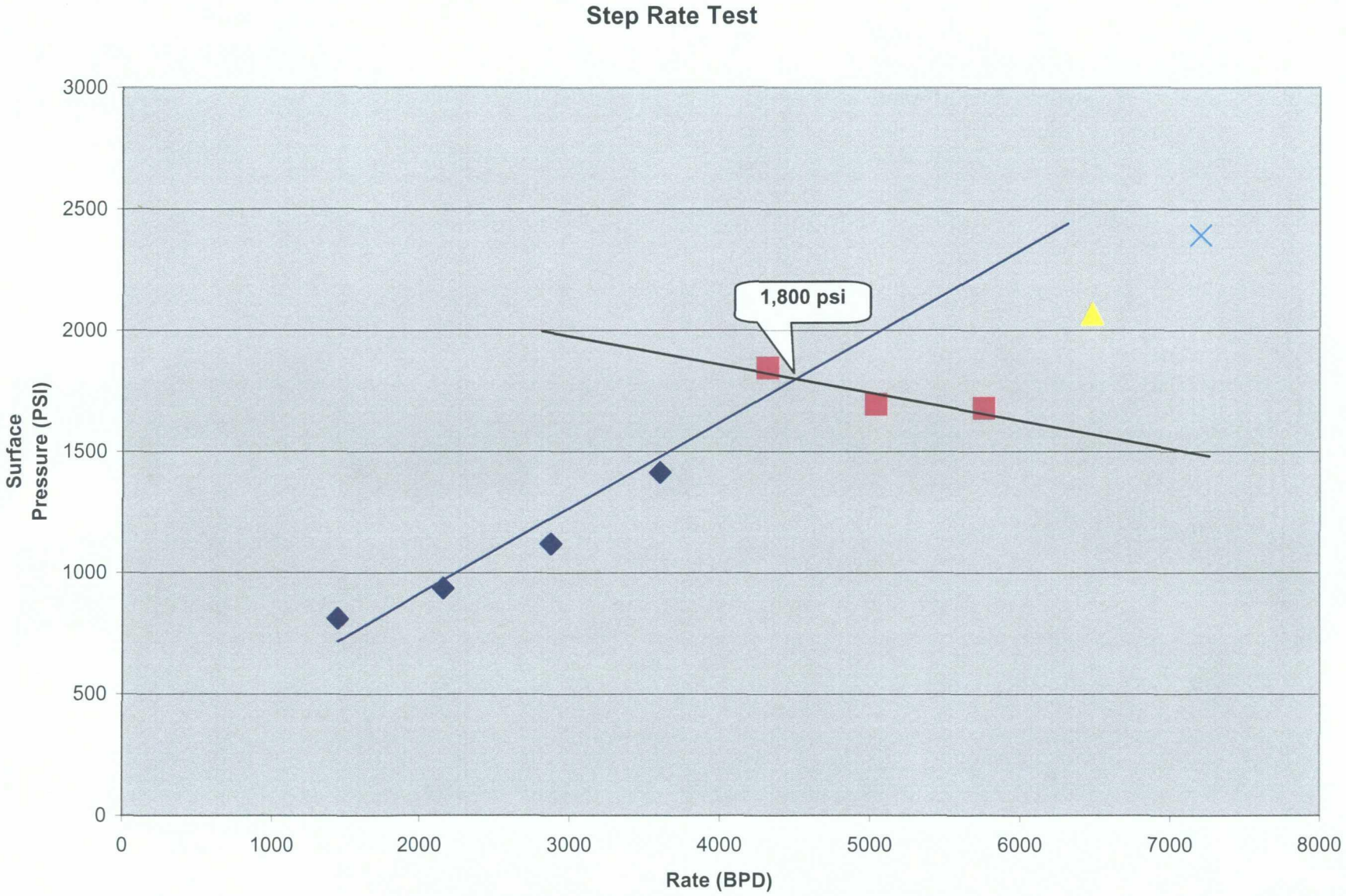
ISIP: 620 psi
5 min: 577 psi

***Fracture Gradient----->** 0.673314 psi/ft

Top Perf @4044' **2722.88** psi

*Considerations

Both Fracture gradient and friction loss were calculated using 10# NaCl with a top perf depth of 4044'.
tbg. is 2-3/8" 4.7# J-55 Seal tite IPC (ID--> 1.995")
Baker Lok-set pkr set @ 4000' with tbg.



Date of Step Rate

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

July 31, 2009

Administrative Order SWD-1064-B

Ann Moore
BEPCO, L.P.
PO Box 2760
Midland, TX 79705

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Rule 26.8B., BEPCO, L.P. seeks an administrative order to utilize its Poker Lake Unit Well No. 227 (API 30-015-33929) located 330 feet from the South line and 560 feet from the East line, Unit P of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico, for produced water disposal purposes.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 26.8B. Satisfactory information has been provided that affected parties as defined in Rule 26.8B.(2) have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 26.8 will be met and the operator is in compliance with Division Rule 5.9.

IT IS THEREFORE ORDERED THAT:

The applicant, BEPCO, L.P., is hereby authorized to utilize its Poker Lake Unit Well No. 227 (API 30-015-33929) located 330 feet from the South line and 560 feet from the East line, Unit P of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico, for disposal of produced water into the Bell Canyon and Cherry Canyon members of the Delaware Mountain Group from 4044 feet to 4830 feet through 2-3/8 inch diameter, plastic-lined tubing set within 100 feet of the disposal interval.

Special Requirements: The well shall be plugged back with CIBP and cement to within 200 feet of the lowermost permitted injection interval. The operator shall raise the cement top of the subject well by squeeze cementing operations from the existing top to above the intermediate casing shoe. If cement does not circulate to surface, a Cement Bond Log shall be run and supplied to the Division's district office in Hobbs.

IT IS FURTHER ORDERED THAT:

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

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The wellhead injection pressure on the well shall be limited to **no more than 809 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by an acceptable Step-Rate-Test.

The operator shall notify the supervisor of the Division's district II office in Artesia of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district II office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 26.13 and 7.24.

Without limitation on the duties of the operator as provided in Division Rules 30 and 29, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

In accordance with Division Rule No 26.12.C., the disposal 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, mailed by the operator prior to the termination date, may grant an extension thereof for good cause. One year after disposal into the well has ceased, the authority to dispose will terminate *ipso facto.*

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.

MARK E. FESMIRE, P.E.
Director

MEF/wvjj

cc: Oil Conservation Division – Artesia
Bureau of Land Management - Carlsbad

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

2009

July 31, 2009

Administrative Order SWD-1064-B

4044-4830'

809

Ann Moore
BEPCO, L.P.
PO Box 2760
Midland, TX 79705

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Rule 26.8B., BEPCO, L.P. seeks an administrative order to utilize its Poker Lake Unit Well No. 227 (API 30-015-33929) located 330 feet from the South line and 560 feet from the East line, Unit P of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico, for produced water disposal purposes.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 26.8B. Satisfactory information has been provided that affected parties as defined in Rule 26.8B.(2) have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 26.8 will be met and the operator is in compliance with Division Rule 5.9.

IT IS THEREFORE ORDERED THAT:

The applicant, BEPCO, L.P., is hereby authorized to utilize its Poker Lake Unit Well No. 227 (API 30-015-33929) located 330 feet from the South line and 560 feet from the East line, Unit P of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico, for disposal of produced water into the Bell Canyon and Cherry Canyon members of the Delaware Mountain Group from 4044 feet to 4830 feet through 2-3/8 inch diameter, plastic-lined tubing set within 100 feet of the disposal interval.

Special Requirements: The well shall be plugged back with CIBP and cement to within 200 feet of the lowermost permitted injection interval. The operator shall raise the cement top of the subject well by squeeze cementing operations from the existing top to above the intermediate casing shoe. If cement does not circulate to surface, a Cement Bond Log shall be run and supplied to the Division's district office in Hobbs.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.

MARK E. FESMIRE, P.E.
Director

MEF/wvjj

cc: Oil Conservation Division – Artesia
Bureau of Land Management - Carlsbad

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

2006

ADMINISTRATIVE ORDER SWD-1064

APPLICATION OF BEPCO, L.P. FOR PRODUCED WATER DISPOSAL, EDDY COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), BEPCO, L.P. made application to the New Mexico Oil Conservation Division for permission to utilize for produced water disposal its Poker Lake Unit Well No. 227 (API No. 30-015-33929) located 330 feet from the South line and 560 feet from the East line of Section 30, Township 24 South, Range 30 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 is hereby authorized to utilize its Poker Lake Unit Well No. 227 (API No. 30-015-33929) located 330 feet from the South line and 560 feet from the East line of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes into the Delaware Mountain Group through perforations from 4930 feet to 7347 feet and through plastic-lined tubing set with a packer located within 100 feet of the top of the injection interval.

986 PSI

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.

After installing injection tubing, the casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

The wellhead injection pressure on the well shall be limited to **no more than 986 psi.** In addition, the injection well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface injection pressure to the maximum allowable pressure for this well.

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 injection formation. 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 any 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 is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall provide written notice of the date of commencement of injection to the Artesia district office of the Division.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, 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 December 11, 2006.

MARK E. FESMIRE, P.E.
Director

MEF/wvjj

cc: Oil Conservation Division – Artesia
Bureau of Land Management - Carlsbad

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

2007

Administrative Order SWD-1064-A

APPLICATION OF BEPCO, L.P. FOR PRODUCED WATER DISPOSAL, EDDY COUNTY, NEW MEXICO

ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), BEPCO, L.P. made application to the New Mexico Oil Conservation Division for permission to utilize for produced water disposal its Poker Lake Unit Well No. 227 (API No. 30-015-33929) located 330 feet from the South line and 560 feet from the East line of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico.

6968'-7347'

THE DIVISION DIRECTOR FINDS THAT:

1394 PSI

(1) This well was approved for injection into the Delaware from 4930 feet to 7347 feet on December, 11, 2006. At that time, the applicant presented a statement from a reservoir engineer that injection into this interval would not harm offset production in the Delaware and in fact may benefit such production.

(2) The applicant is requesting an amendment to the original permit, due to the fact that the upper permitted injection interval was watering out a nearby horizontal well operated by the applicant through a fracture or high permeability zone. The offending upper perforations have been cement squeezed but the wellbore mechanical integrity has been compromised.

(3) There is only one well penetrating this injection depth and located within the ½ mile area of review of the proposed injection well. The applicant is the operator of that well.

(4) Due to the fact that waste of oil may occur if injection is allowed into the upper portion of the previously permitted interval, this amendment reduces the permitted injection interval, and allows the use of two isolation packers to ensure isolation of upper perforations (5450 to 6640) that were cement squeezed but still will not maintain mechanical integrity.

(5) The maximum allowable surface injection pressure also is increased, since the Division uses a 0.2 psi per foot gradient and the depth to the top injection perforation has

increased.

IT IS THEREFORE ORDERED THAT:

The applicant is hereby authorized to utilize its Poker Lake Unit Well No. 227 (API No. 30-015-33929) located 330 feet from the South line and 560 feet from the East line of Section 30, Township 24 South, Range 30 East, NMPM, Eddy County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes into the Delaware Mountain Group through perforations from **6968 feet to 7347 feet** and through plastic-lined tubing set with two packers, the first packer located approximately 5400 feet and the second packer located approximately 6853 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.

After installing injection tubing, the casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

The wellhead injection pressure on the well shall be limited to **no more than 1394 psi.** In addition, the injection well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface injection pressure to the maximum allowable pressure for this well.

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 injection formation. 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 any 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 is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of

correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall provide written notice of the date of commencement of injection to the Artesia district office of the Division.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, 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 October 24, 2007.

MARK E. FESMIRE, P.E.
Director

MEF/wvjj

cc: Oil Conservation Division – Artesia
Bureau of Land Management - Carlsbad