

ABOVE THIS LINE FOR DIVISION USE ONLY

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



**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] OPERATOR/Applicant Name: \_\_\_\_\_ OGRD: \_\_\_\_\_  
 (If one well) Lease/Well Name: \_\_\_\_\_  
 Well API No. 30- \_\_\_\_\_ - \_\_\_\_\_

[2] 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

[3] 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  
U.S. Bureau of Land Management  
 [E]  Notification and/or Concurrent Approval by SLO  
Commissioner of Public Lands, State Land Office  
 [F]  For all of the above, Proof of Notification or Publication is Attached, and/or,  
 [G]  Waivers are Attached

[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.**

RECEIVED  
 2007 NOV 29 4 PM 3 30

# BOLD ENERGY, LP

415 W. WALL, SUITE 500  
MIDLAND, TEXAS 79701

MAIN: 432-686-1100  
FAX: 432-686-1104

November 27, 2007

New Mexico Oil Conservation Division  
Engineering Bureau  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505  
505-476-3448

Attn: William Jones, PE

RE: **Request for Increase in Maximum Allowable Surface Injection Pressure**  
Antelope Ridge Unit No. 4  
Unit Letter "B" Section 4 T24S R30E  
Lea County, New Mexico

Bold Energy, LP respectfully requests approval to increase the maximum allowable surface injection pressure on its Antelope Ridge Unit No. 4 SWD well.

Attached please find the following:

- 1) Step-rate test analysis.
- 2) Current water disposal permit SWD-1049.
- 3) Log section covering the injection interval
- 4) Current wellbore schematic.
- 5) Form 3160-5 request for increase in allowable surface injection pressure.

As shown with the attached analysis, it has been determined that the fracture extension pressure at surface is 1,400 psi. Applying a safety factor of 50 psi, Bold Energy respectfully requests approval to increase the maximum allowable surface injection pressure to 1,350 psi from the current maximum allowable pressure of 1,034 psi.

Thank you,



Shannon L. Klier  
Operations Engineering Manager

# **BOLD ENERGY, LP**

ARU #4 SWD

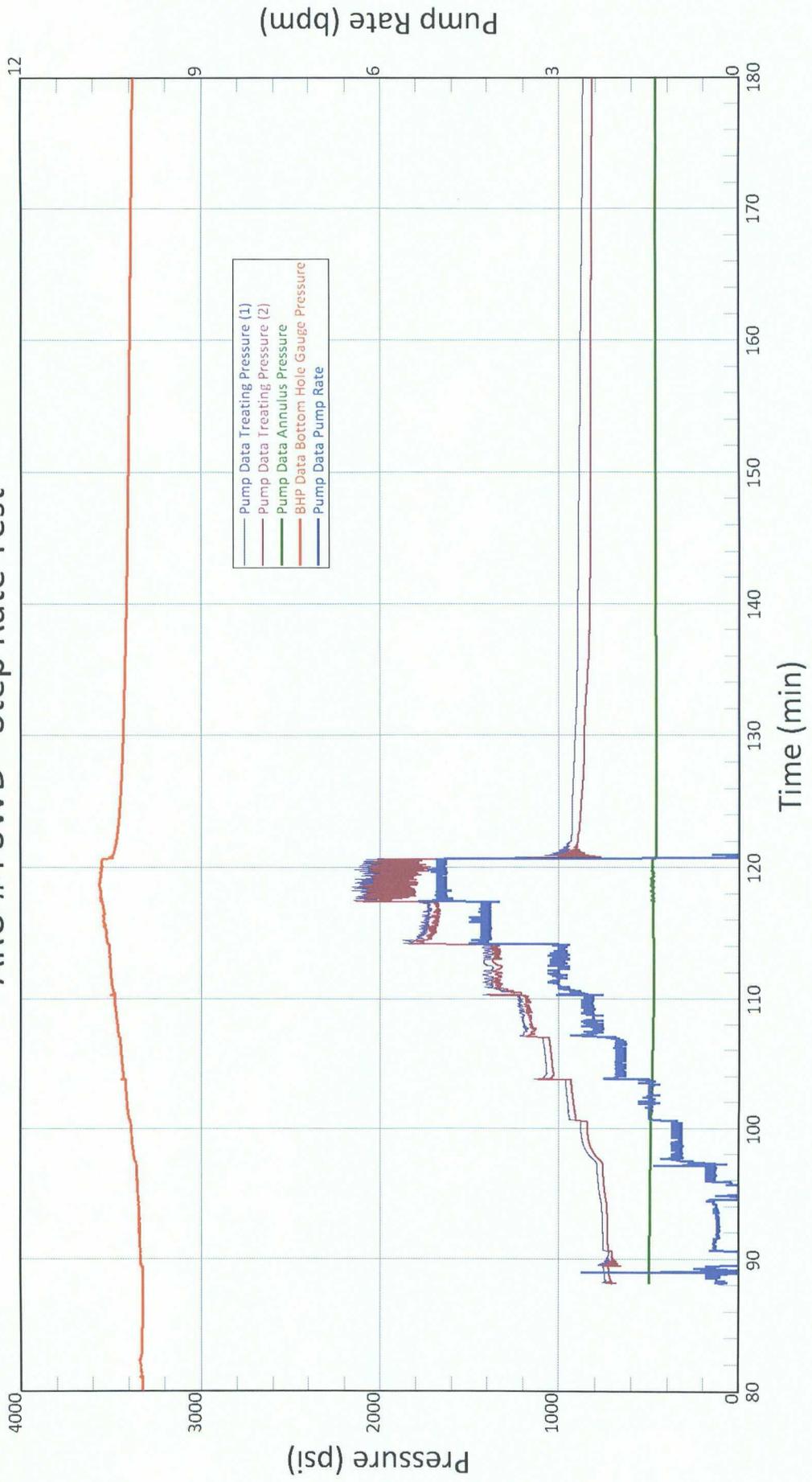
API No. 30-025-21037

Step-Rate Injection Test  
11/19/07

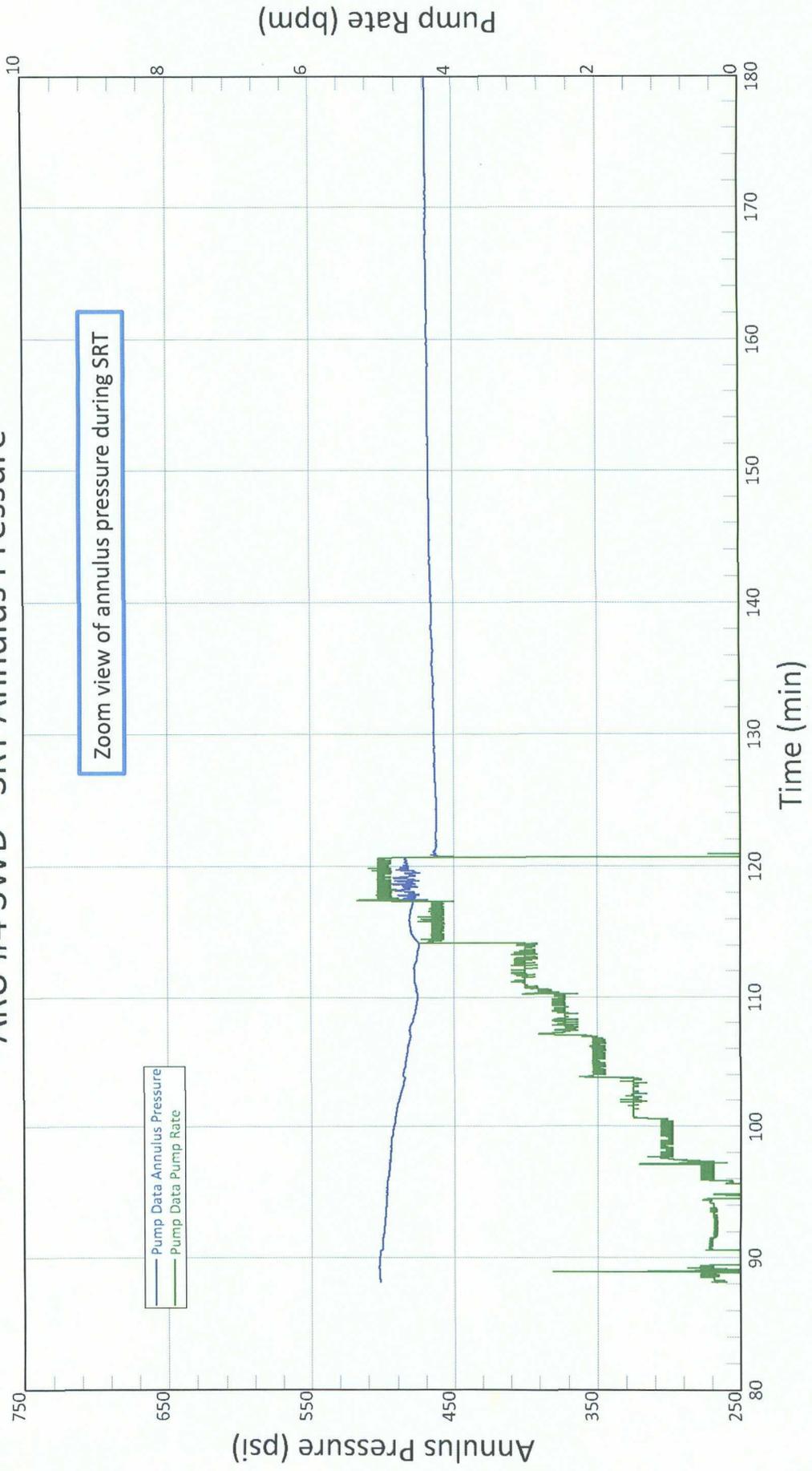
Request for Increase in  
Allowable Surface Injection Pressure

Submitted by: Shannon L. Klier

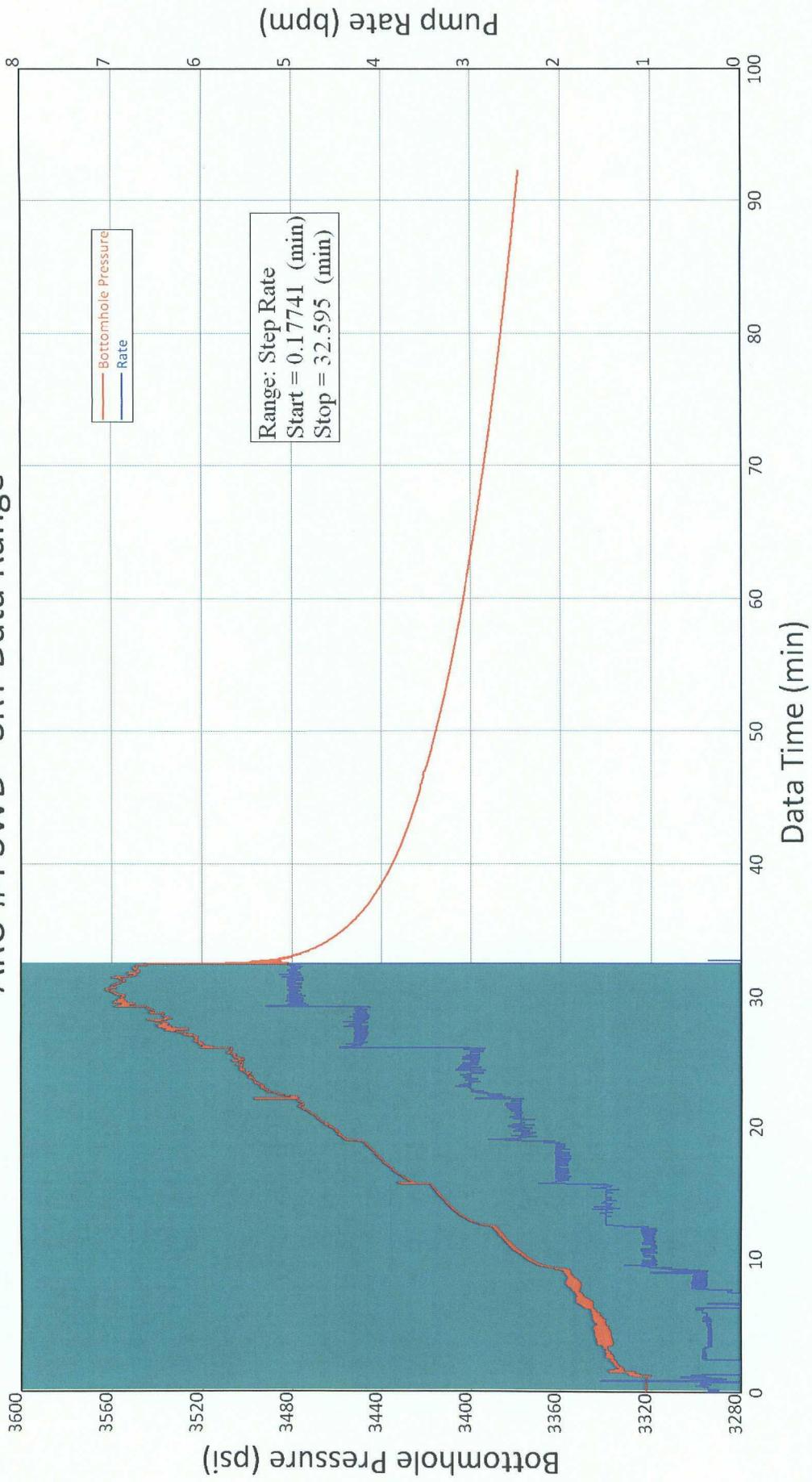
# ARU #4 SWD - Step Rate Test



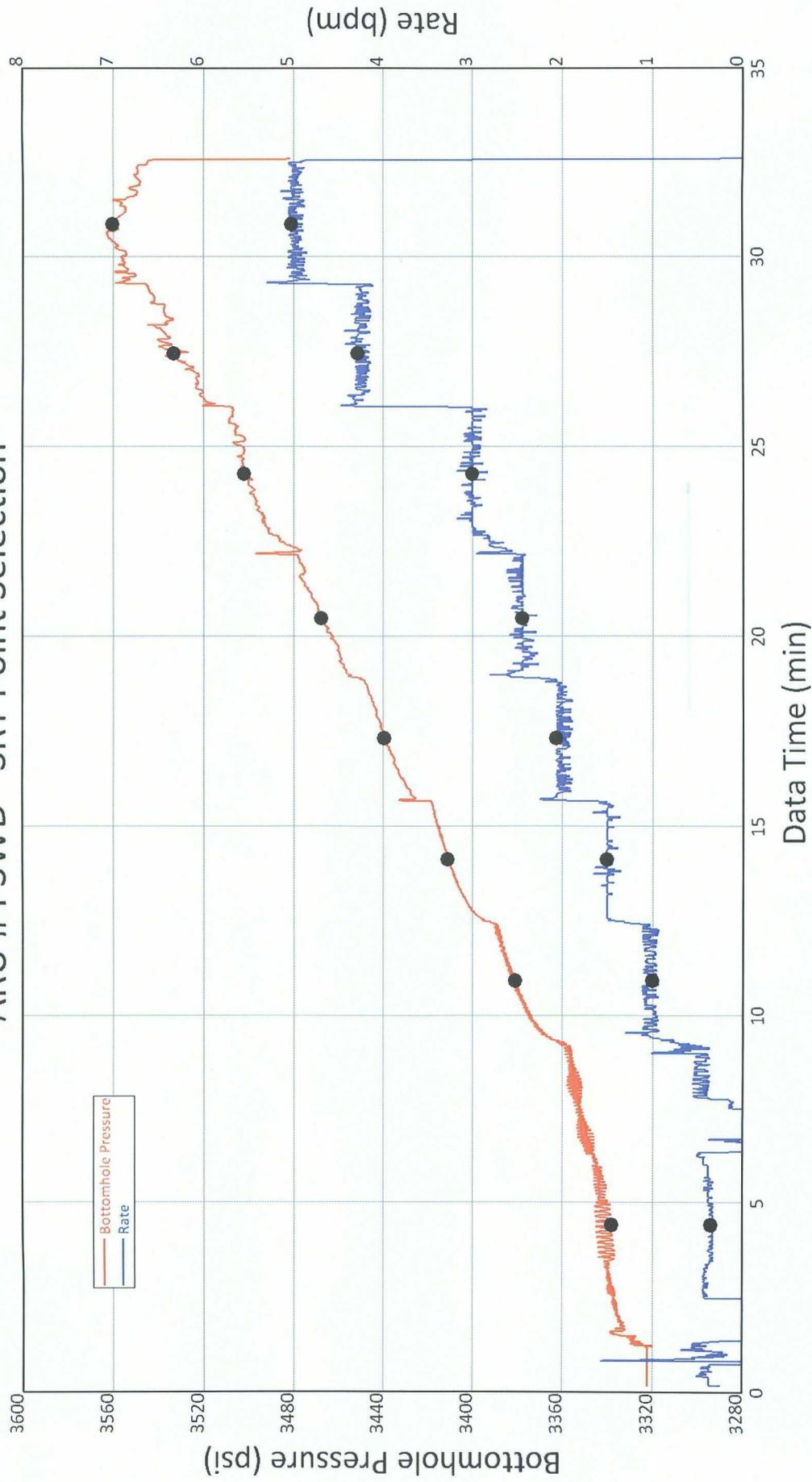
# ARU #4 SWD - SRT Annulus Pressure



# ARU #4 SWD - SRT Data Range



# ARU #4 SWD - SRT Point Selection





### Step Rate - Pressure Table



Specific Gravity of

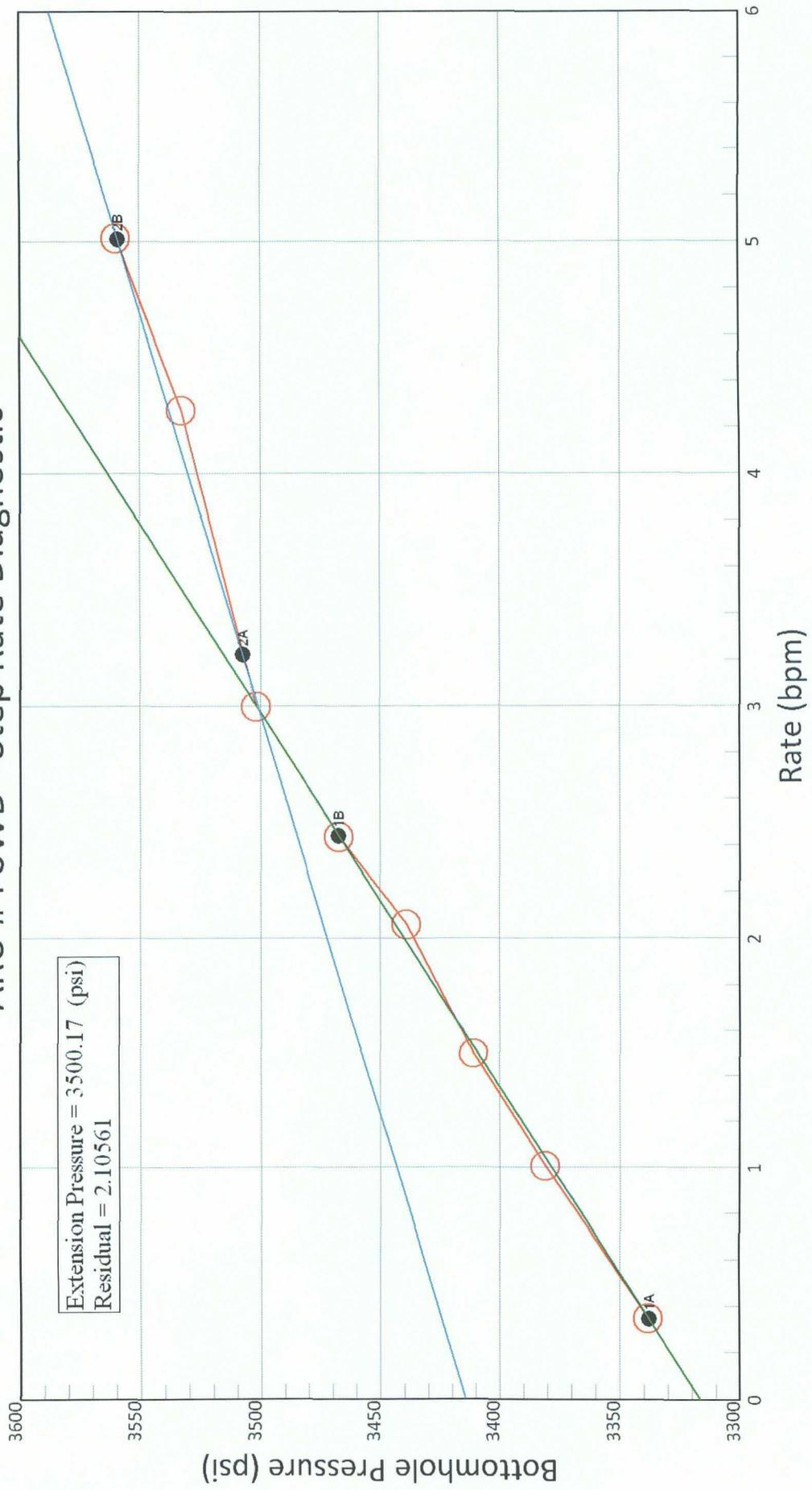
Perforations

Number:  Discharge:  Diameter:  (in.)

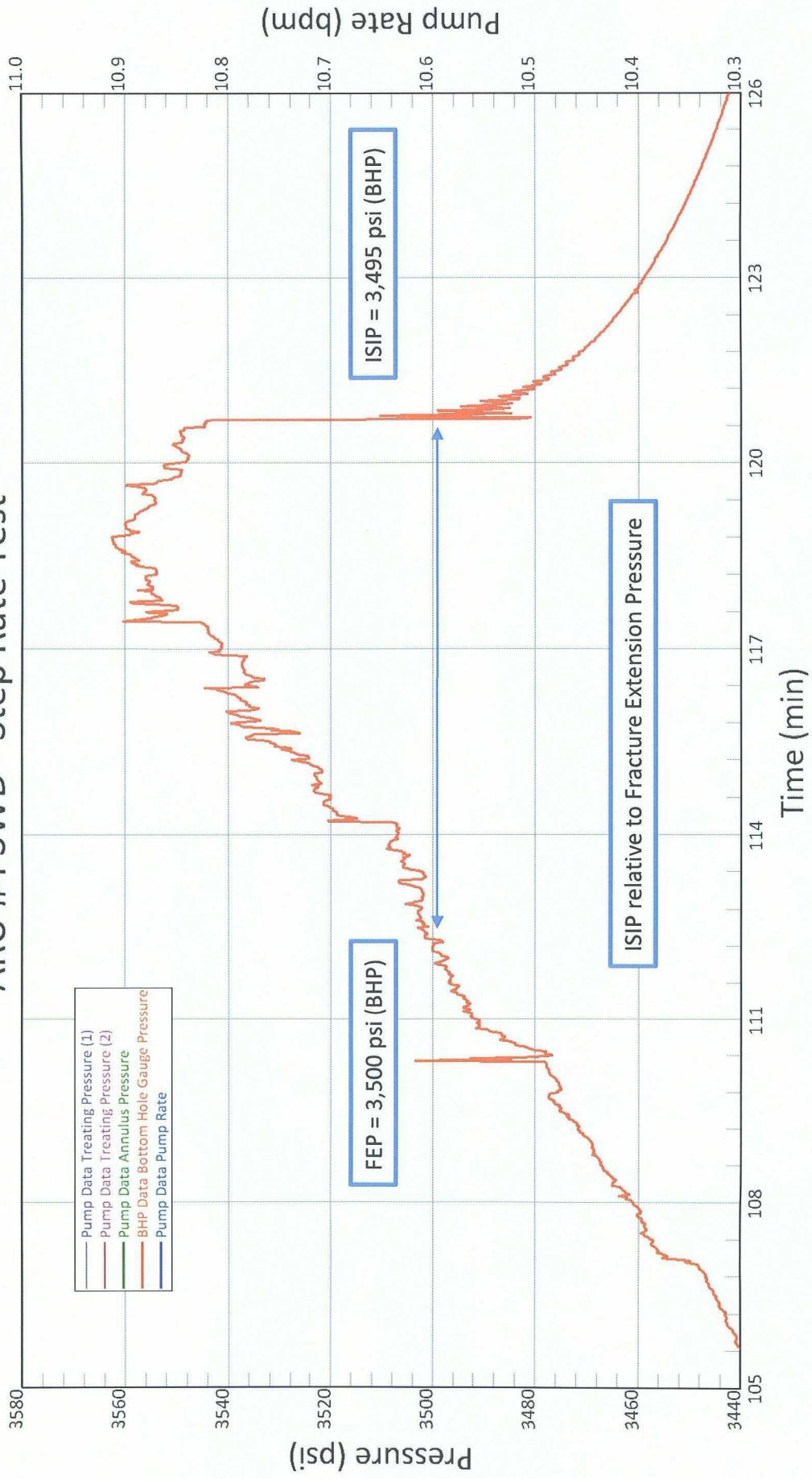
	Rate (bpm)	Bottomhole Pressure (psi)	DP Fric (psi)	DP Frac (psi)	DP Perf Ideal (psi)	Extension Pressure (psi)
1	0.351515	3338.13	0	0	1.1873e-05	3338.13
2	1.00699	3380.89	0	0	9.7436e-05	3380.89
3	1.5	3411.03	0	0	0.0002162	3411.03
4	2.0625	3439.18	0	0	0.00040875	3439.18
5	2.4375	3467.09	0	0	0.0005709	3467.09
6	3	3501.52	0	0	0.0008648	3501.52
7	4.27465	3532.57	0	0	0.00175579	3532.57
8	5.01615	3559.94	0	0	0.00241775	3559.94

Select Points  Show Plot  Help

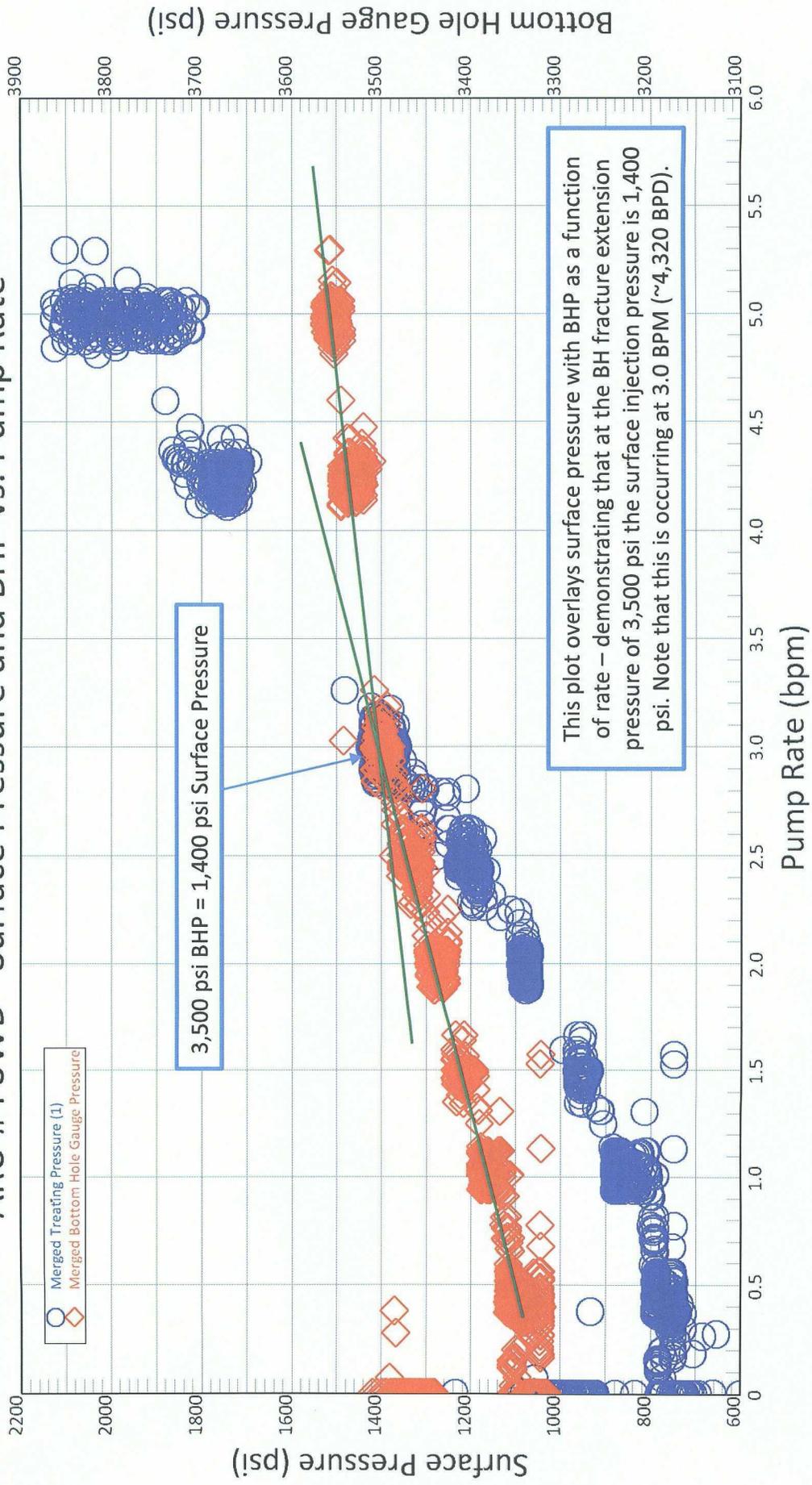
# ARU #4 SWD - Step Rate Diagnostic



# ARU #4 SWD - Step Rate Test



# ARU #4 SWD - Surface Pressure and BHP vs. Pump Rate





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

ADMINISTRATIVE ORDER SWD-1049

## **APPLICATION OF BOLD ENERGY, LP FOR PRODUCED WATER DISPOSAL, LEA COUNTY, NEW MEXICO.**

### **ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), Bold Energy, LP made application to the New Mexico Oil Conservation Division for permission to utilize for produced water disposal its Antelope Ridge Unit Well No. 4 (API No. 30-025-21037) located 990 feet from the North line and 2310 feet from the East line of Section 4, Township 24 South, Range 34 East, NMPM, Lea 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 Antelope Ridge Unit Well No. 4 (API No. 30-025-21037) located 990 feet from the North line and 2310 feet from the East line of Section 4, Township 24 South, Range 34 East, NMPM, Lea County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes into the Bell Canyon and Cherry Canyon members of the Delaware Mountain Group through perforations from 5170 feet to 6300 feet and through plastic-lined tubing set in a packer located within 100 feet of the top of the injection interval.

**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.

**As preparation for injection, the following shall be done:**

- (a) this well shall be plugged back to within 200 feet of the bottom of the injection interval;
- (b) cement shall be squeezed into the formation from 6500 feet and circulated to 5870 feet;
- (c) cement shall be squeezed from approximately 5685 to surface or as high as possible above the top injection interval at 5170 feet, but without perforating holes in the casing above 5170 feet; and
- (d) a new cement bond log shall be run and supplied to the engineering bureau of the Division in Santa Fe.

**The operator shall not inject into this well until written confirmation is received from the engineering bureau in Santa Fe that the required wellbore cementing work is completed.**

**The intended injection interval shall be swab tested and a formation water analysis along with all swab-test results shall be supplied to the Division.**

After installing injection tubing, 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 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 1034 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 Hobbs 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 Hobbs 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 Hobbs 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 19, 2006.

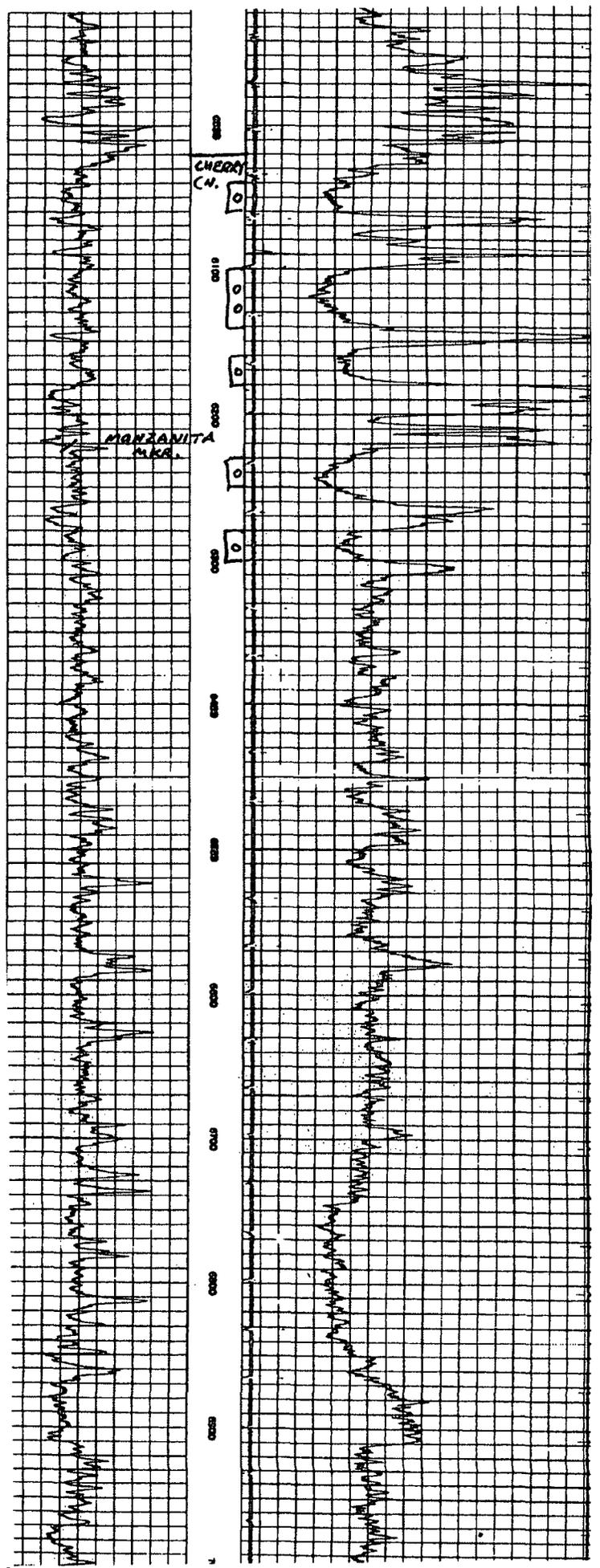
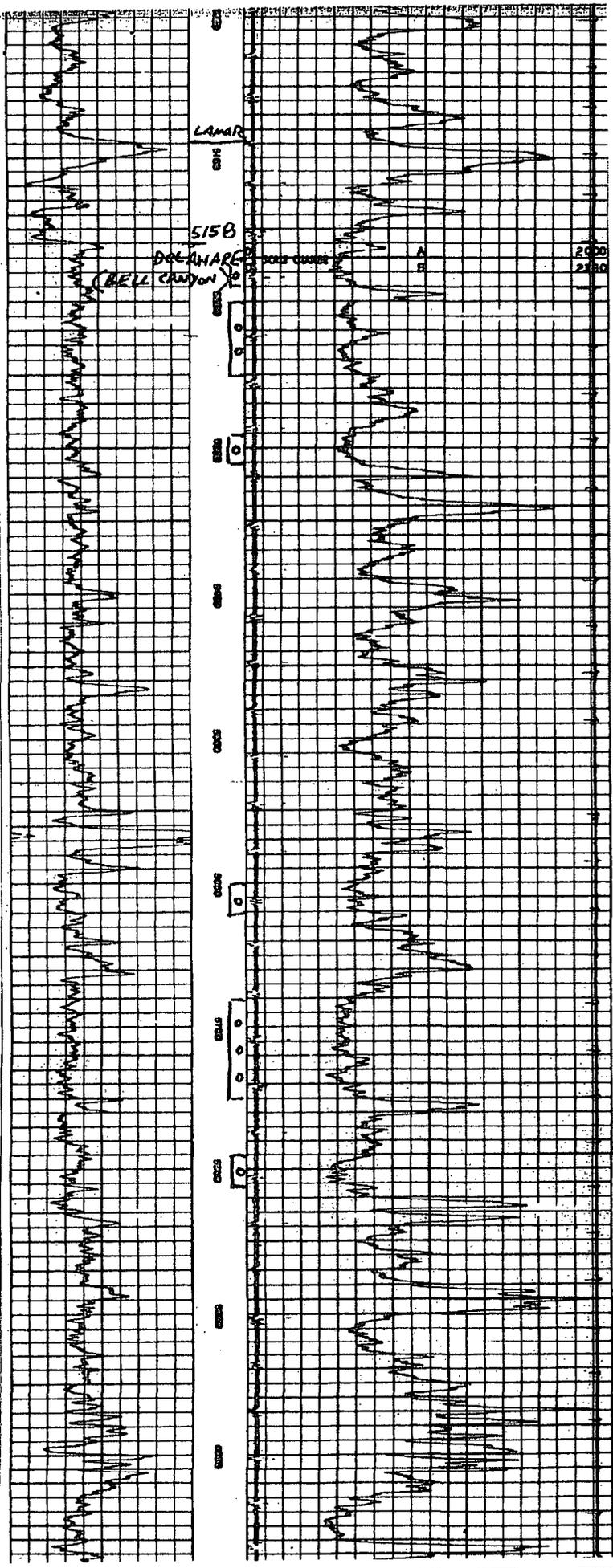


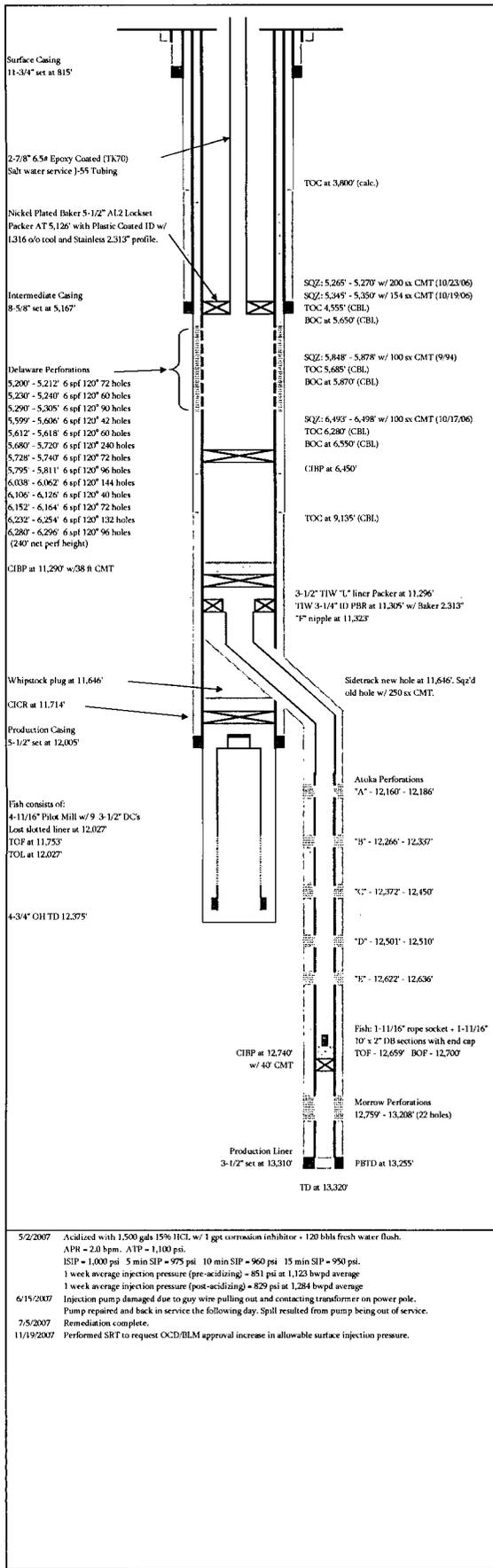
MARK E. FESMIRE, P.E.

Director

MEF/wvjj

cc: Oil Conservation Division – Hobbs





## BOLD ENERGY, LP Antelope Ridge Unit #4 SWD

**WI:** 50.0% **NRI:** 42.5%  
**Elevation:** 3,550' **API:** 30-025-21007  
**KB:** 13 **Surface Location:** 990 FNL R 2310' FEL  
**Meas. TD:** 13,320' **Legal Description:** Section 4 - T24S - R34E  
**TVD:** 13,320' **Field:** Antelope Ridge  
**PBD:** 13,255' (FC) **County:** Lea County  
**Zone:** Delaware (injection zone) **State:** New Mexico

Casing	Hole	Weight	Grade	Top	Bottom	Burst	80% Burst	TOC	
Conductor	15"	42#	H-40-F55	0'	815'	1,980	1,584	Surface (circ)	
	8-5/8"	11"	J-55	0'	5,167'	3,930	3,144	3,800' (calc)	
	5-1/2"	7-7/8"	17#	N-80-J55	0'	12,005'	5,320	4,256	9,135' (CBL)
	3-1/2"	4-3/4"	9.3#	N-80	11,296'	13,320'	10,160	8,128	11,296' (circ)

Date	Event				
12/8/1964	Spud				
2/4/1965	Original completion in Atoka OH from 12,005' - 12,275'. GAOF - 30 MMscfd				
Four point test results					
Time (hrs)	Choke	Rate (mcf/d)	Cond (bbls)	GLR	FTP
2	10/64	4,516	8.8	42,873	4,155
2	13/64	5,539	11.7	39,521	4,090
2	16/64	6,781	15	37,591	3,974
2	19/64	9,568	22.5	35,004	3,717

3/8/1966 BHP bombs: Survey showed 5,162 psi at 12,250'. Corrected to 5,115 psi at 11,826'  
 9/5/1968 Letter from Shell to NMOCDD reporting 1,300 bwp/d and 1,000 Mcfd  
  
**10/1/1972** Deepen to Morrow. SITP 2,200 psi. Killed with 10# brine. POOH with LSA. Try to fish 4" slotted liner. Could not pull liner. Left fish in hole - 1-11/16" KR pilot mill and 9 3-1/2" DC's. TOF at 11,753'  
 Sqz from 11,714' - 12,375'. Set whipstock and sidetracked original hole at 11,646' with 4-3/4" bit.  
 Set 3-1/2" casing at 13,320' with TOL at 11,296'. RHH with 2-7/8" (bg and perf with 2" tubing guns.  
 Morrow: 12,759'; 12,762'; 12,763'; 12,780'; 12,781'; 12,789'; 12,790'; 12,792'; 12,988'; 12,961'; 12,964';  
 12,967'; 12,970'; 12,972'; 12,975'; 12,977'; 13,023'; 13,025'; 13,182'; 13,184'; 13,206'; 13,208' (22 holes)  
 16 hour SITP = 6,600 psi. Flowed 24 hours at 750 psi - 637 Mcfd. Acidized Morrow with 28 gal 20% HCl.  
 w/ nitrogen.  
  
 2/1/1973 Flowing Morrow at 600 psi at 12 bopd, 0 bwp/d and 750 Mcfd. Frac'd Morrow with 10K gal 50# linear gel  
 pad and 15K gal 1.0 ppw slurry with 20/40 sand - 1K gal 15% HCl acid w/ 10 BS - then reperforated. All fluid  
 contained 300 scf/bbl N2. Averaged 8.3 bpm at 7,700 psi. ISIP = 5,700 psi 15 min SITP = 5,000 psi.  
 4/1/1973 Flowing Morrow at 600 psi at 4 bopd, 8 bwp/d and 765 Mcfd after frac.  
 3/1/1977 Flowing Morrow at 267 Mcfd, 4 bopd, 1 bwp/d. Ran FBU test. BHP = 4,561 psi. Tagged w/ WL at 13,191'.  
 Skin damage reported in FBU analysis.  
 10/1/1991 FTP = 200 psi. Swabbed 4 runs and recovered 6-10 bbls black water.  
  
**8/1/1994** Plug back from Morrow to Atoka. Set CIBP over Morrow. Left WL fish in hole.  
 Located hole in casing at 5,848' - 5,878' and squeezed off.  
 Perforated the Atoka as follows with 2" tubing guns, 4 spf, 60 deg phasing, 389 holes total  
 "C" 12,372' - 12,382'; 12,401' - 12,403'; 12,408' - 12,414'; 12,417' - 12,423'; 12,426' - 12,434'; 12,442' - 12,450'  
 "E" 12,501' - 12,510'; 12,514' - 12,516'; 12,552' - 12,566'; 12,576' - 12,584'; 12,591' - 12,601'  
 "E" 12,622' - 12,627'; 12,630' - 12,636'  
 Noted slight blow on tubing after performing 12,552' - 12,584'. Overnight SITP = 1,190 psi. Flowed well 7.5 hrs  
 Recovered fluid for first two hours with FTP 300 to 600 psi.  
 9/24/1994 SI waiting on compressor. SITP from 9/24 to 9/30 - 1,700 psi to 3,850 psi.  
 10/13/1994 Begin gas lift.  
 11/29/1994 Ran flow gradient survey showing BHFP at 12,513' is 896 psi - flow coming from bottom GLV at 11,297'  
 RHH w/ CT. Spotted 10 bbls 7-1/2% MSR to btm perf. Pumped 0.3 bpm at 4,400 psi. ISIP = 3,850 psi. 15 min  
 SIP = 805 psi. Pull above perforations and pump 18 bbls 7-1/2% MSR. Displace acid while reciprocating CT. Reverse out.  
 12/3/1994 Well flowing on gas lift. No net gas production after 3 days.  
 12/17/1994 Perforated Atoka "F" 12,316' - 12,337' w/ 2" tubing guns. Well went from vacuum to slight blow in 10 minutes.  
 Started gas lift. Fluid to surface in 1 hour. Flowing 6 hours with 25 bw, 570 Mcf.  
 From 12/18/94 to 1/6/95 gas increased from 0 to 131 Mcfd and from 0 to 158 bwp/d.  
 1/8/1995 SITP = 250 psi, SICP = 1,240 psi. Perforate Atoka "A" 12,160' - 12,162'; 12,168' - 12,176'; 12,181'; 12,186';  
 12,266' - 12,270'; 12,272' - 12,274'; 12,281' - 12,284'; 12,286' - 12,289'; 12,291' - 12,303'  
 2" tubing guns, 2 spf w/ 180 deg phasing.  
 Tubing pressure increased to 500 psi after 2nd run. FL at 2,450'. TP increased to 600 psi after 3rd run.  
 Final SITP = 650 psi, CIP = 1,240 psi.  
 From 1/10/95 to 1/22/95 rate increased from 119 to 157 Mcfd and decreased from 120 to 105 bwp/d.  
 3/1/1995 BHP = 5,518 psi from 72 hour BHP buildup.  
 9/1/1996 Spotted 60 bbls of 15% MSR 100. Acidized Atoka perf. Formation broke at 4,960 psi at 2.5 bpm.  
 Max pressure = 6,150 psi at 8.0 bpm. ISIP = 1,000 psi. 15 min SIP = 160 psi.  
 9/12/1996 SITP = 675 psi. Swabbed - SFL 500' FFL 2,000'. Well kicked off after 4 runs. 16.64" CK at 775 psi.  
 SI for evaluation. 14 hour SITP = 1,200 psi.  
 9/15/1996 TA'd well with CIBP over Atoka.  
 4/1/2002 Casing integrity test performed and witnessed by BLM.

**3/1/2006** Re-establish Atoka production: Cut over and retrieved CIBP. Polished PBR at 11,296'.  
 Ran GYRO survey showing BHL at 12,659' is 154.7' at 102.7 degrees.  
 Ran seal assembly on 3-1/2" work string. Shut in well.  
 3/21/2006 4 day SITP = 1,250 psi. Frac'd Atoka (12,160 - 12,636) with 1,930 bbls Slickwater & 11,981 lbs 20/40 CarboProp  
 at a pump rate of 22 - 30 bpm and 7,883 to 8,530 psi. ISIP = 3,650 psi. Opened to test tank on 32.64" CK.  
 First 14 hours of flowback recovered 505 bw with FTP of 240 psi on 34.64" CK.  
 Recovered over 100% of frac load by second day of flowback.  
 3/24/2006 MRU test separator and continue flowback.  
 275 psi on 32.64" CK 130 Mcfd and 840 bwp/d  
 3/25/2006 245 psi on 28.64" CK 121 Mcfd and 1,017 bwp/d  
 3/26/2006 220 psi on 28.64" CK 93 Mcfd and 884 bwp/d  
 3/27/2006 200 psi on 28.64" CK 103 Mcfd and 1,086 bwp/d  
 3/28/2006 Final reading 200 psi on 28.64" CK 103 Mcfd and 1,008 bwp/d  
 Ran 50 lb production log. Set down at 12,322'. Log showing all flow coming from below 12,322' (no spinner data)  
 Ran impression block - sand impression. Made 1" in 3 hauler runs. SI and let build overnight.  
 3/30/2006 Open to test tank and flow well overnight.  
 3/31/2006 Ran in with hauler. No progress in 6 hauler runs. SI well.  
 4/3/2006 Ran CBL = 2,750 psi. Flowed well to test tank. Pull 3-1/2" work string. Set 5-1/2" CBP at 11,290 w/ 38" CMT.  
 8/19/2006 Ran CBL to identify cement tops in 5-1/2" casing string.

10/17/2006 Convert to SWD in Delaware. Performed squeeze work to isolate above and below Delaware formation. Casing tested to 625 psi after all squeeze work. Good test.

10/25/2006 Acidized Delaware formation in three stages via 2-7/8" tubing with RBP and treating packer as follows:  
 Perfs 6,038' - 6,296': 195 bbls 15% HCl acid w/ 116 bbls FW flush. APR = 15.2 bpm. ATP = 2,847 psi.  
 ISIP = 760 psi. 5 min SIP = 728 psi. 10 min SIP = 709 psi. 15 min SIP = 696 psi.  
 Perfs 5,599' - 5,811': 145 bbls 15% HCl acid w/ 100 bbls FW flush. APR = 15.6 bpm. ATP = 2,688 psi.  
 ISIP = 850 psi. 5 min SIP = 693 psi. 10 min SIP = 636 psi. 15 min SIP = 590 psi.  
 Perfs 5,200' - 5,305': 153 bbls 15% HCl acid w/ 100 bbls FW flush. APR = 16.4 bpm. ATP = 2,934 psi.  
 ISIP = 780 psi. 5 min SIP = 780 psi. 10 min SIP = 733 psi. 15 min SIP = 723 psi. 12 hour SIP = 320 psi.  
 Total load to recover = 841 bbls.

10/31/2006 PKR set at 5,125'. Pumped via plastic coated 2-7/8" tubing w/ 600 psi on annulus.  
 ISIP = 700 psi 5 min SIP = 223 psi 10 min SIP = 200 psi 15 min SIP = 180 psi

11/3/2006 Performed OCD witnessed casing / packer leakage test. 300 psi for 30 minutes. Test successful.

11/22/2006 Disposal began.

**ARU #4 - Injection Test Results**

Ratio	Time	Tot Time	Volume	Tot Vol	Pressure	EG Rate
OPM	MIN	MIN	SCF	SCF	PSI	(BP/D)
1.94	8.4	8.4	12.4	12.4	410	
0.48	5	13.4	2.4	14.8	287	691.2
0.53	5	18.4	2.7	17.5	257	783.2
1.76	5	23.4	5.3	22.8	316	1538.4
1.49	5	28.4	7.5	30.2	350	2145.6
2.04	5	33.4	10.2	40.4	330	2937.6
2.53	5	38.4	12.7	53.1	316	3643.2
2.99	5	43.4	15.0	68.0	609	4305.6
2.62	5	48.4	18.0	86.0	649	4537.8
2.04	5	53.4	10.2	96.0	566	2937.6
1.48	5	58.4	7.4	103.4	587	2131.2
1.01	5	63.4	5.1	108.5	355	1454.4
0.53	5	68.4	2.8	111.3	304	761.76
0.41	5	73.4	2.0	113.3	287	568.08

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator **BOLD ENERGY, LP**

3a. Address  
**415 W. Wall, Suite 500 Midland, Texas 79701**

3b. Phone No. (include area code)  
**432-686-1100**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**Unit B - 990' FNL & 2310' FEL, Sec 4 - T24S - R34E**

5. Lease Serial No.  
**NM 021422**

6. If Indian, Allottee or Tribe Name  
**N/A**

7. If Unit or CA/Agreement, Name and/or No.  
**NM 68289D**

8. Well Name and No.  
**Antelope Ridge Unit #4**

9. API Well No.  
**30-025-21037**

10. Field and Pool, or Exploratory Area  
**SWD; Bell Canyon - Cherry Canyon**

11. County or Parish, State  
**Lea County, New Mexico**

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <b>Request Increase in Allowable Surface Injection Pressure</b>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Accompanying this form are the results of a step-rate injection test performed on 11/19/07. The purpose of this test was to support a request for an increase in the maximum allowable surface injection pressure.

It has been determined that the fracture extension pressure at surface is 1,400 psi. Applying a safety factor of 50 psi, Bold Energy respectfully requests approval to increase the maximum allowable surface injection pressure to 1,350 psi.

**RECEIVED**  
 2007 NOV 29 AM 9 41

14. I hereby certify that the foregoing is true and correct  
 Name (Printed/Typed)

**Shannon L. Klier**

Title **Operations Engineering Manager**

Signature



Date

**11/27/07**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

(Instructions on page 2)