

DATE 3/27/08	SUSPENSE	ENGINEER W Jones	LOGGED IN 3/27/08	TYPE IPI	APP NO. PKVR0808750969
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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] 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

[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.

Bob Gilmore
 Print or Type Name

Bob Gilmore
 Signature

Engineer
 Title

3-26-08
 Date

BGILMORE@SSUC.NM.T
 e-mail Address

RECEIVED
 2008 MAR 27 PM 1 04

Telephone (940) 723-2166

STEPHENS & JOHNSON OPERATING CO.

FAX (940) 723-8113

811 Sixth Street, Suite 300

Post Office Box 2249

WICHITA FALLS, TEXAS
76307-2249

RECEIVED

2008 MAR 27 PM 1 03

March 25, 2008

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Stephens & Johnson Operating Co.
Injection Pressure Increase
Denton North Wolfcamp Unit
Sec. 26 & 35 T14S R37E
Lea County, New Mexico

OGRI
019958

Dear Mr. Fesmire:

Stephens & Johnson Operating Co. is hereby requesting permission to increase the surface injection pressure on Denton North Wolfcamp Unit injection wells No. 6-33 and 15-5 located in Sec. 26 and 35 T14S R37E in Lea County, New Mexico.

The Denton North Wolfcamp Unit has been injecting water for over 30 years at an average pressure of 2700 psig. The two wells requesting an increase in injection pressure were converted a few years ago but were limited to 0.2 psi per ft. A step rate test was run on both wells on March 20, 2008. The test on Denton North Wolfcamp Unit No. 6-33 found the formation parting surface pressure for the well to be @ 4,020 psig. This surface parting pressure was also confirmed by calculating its surface fracture pressure upon its completion in June, 2000 at 4,023 psi utilizing its ISIP from an acid job. Please find attached the step rate data for the well.

The step rate test for the Denton North Wolfcamp Unit No. 15-5 failed to reach its surface parting pressure due to its downhole equipment failing during the test. The test was stopped upon reaching a surface pressure of 2,710 psig when either its tubing or packer failed in the well. Based on the Denton North Wolfcamp Unit No. 6-33 step rate data and calculated surface parting pressures from initial acid treatment procedures, the surface parting pressure should be @ 4,000 psig for

the well. Please find enclosed for review the failed step rate test indicating no parting pressure for the well at 2,710 psig.

Due to the attached data, Stephens & Johnson Operating Co. hereby request a maximum surface injection pressure of 3,216 psig for Denton North Wolfcamp Unit well No. 6-33 and a maximum surface injection pressure of 2,710 psig for Denton North Wolfcamp Unit well No. 15-5.

Please review the attached data and contact me if you have any questions. Thank you for your consideration on these proposals.

Sincerely,

STEPHENS & JOHNSON OPERATING CO.

A handwritten signature in cursive script, appearing to read "Bob Gilmore".

Bob Gilmore

BG/np
Attachments

DENTON NORTH WOLFCAMP UNIT
LEA COUNTY
NEW MEXICO

WELL NO.	API NUMBER	CURRENT MAX SURFACE INJECTION PRESSURE PSIG	FORMATION PARTING PRESSURE AT SURFACE PSIG	FORMATION PARTING PRESSURE AT SURFACE PSI/FT	PROPOSED MAXIMUM SURFACE PRESSURE PSIG	COMMENTS
DNWCU NO. 5-15	30-025-05139	1859	EST 4070	EST 0.438	2710	FORMATION PARTED PRESSURE NOT ATTAINED DURING TEST DUE MECHANICAL FAILURE
DNWCU NO. 6-33	30-025-33090	1834	4020	0.438	3216	

TRACT 15 well #5
 WFX-815 (R-3001) 10/18/05 (1859 PSI) 9294'-9450'
 990 FNL/990 FEL
 (UNIT A/526/145/37E) Denton-Wolfcamp Pool

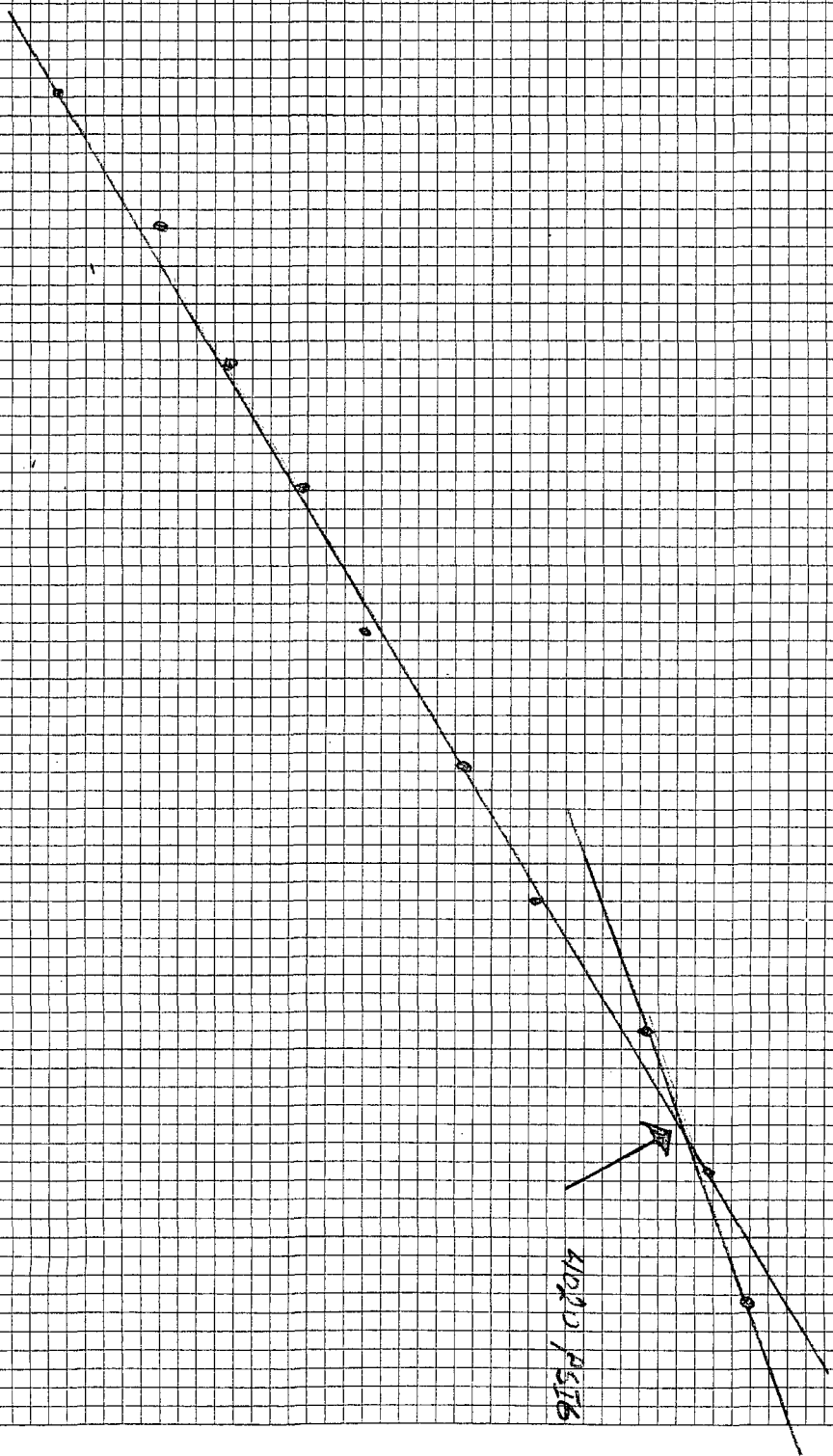
TRACT 6 well #633
 WFX-766 11/8/00 (Core 3340 R-3001) WOLFCAMP (1834 PSI) 9170'-9300'
 990 FNL/990 FEL UNIT A/526
 Denton North WC UNIT WF PROTECT

3-20-2008

5502
DUNN No. 6-33
Lea County New Mexico

BPD - Rate of Injection

4020 PSIG



3-20-2008

5506

DWUE ALB. 15-5

STPRAT TEST

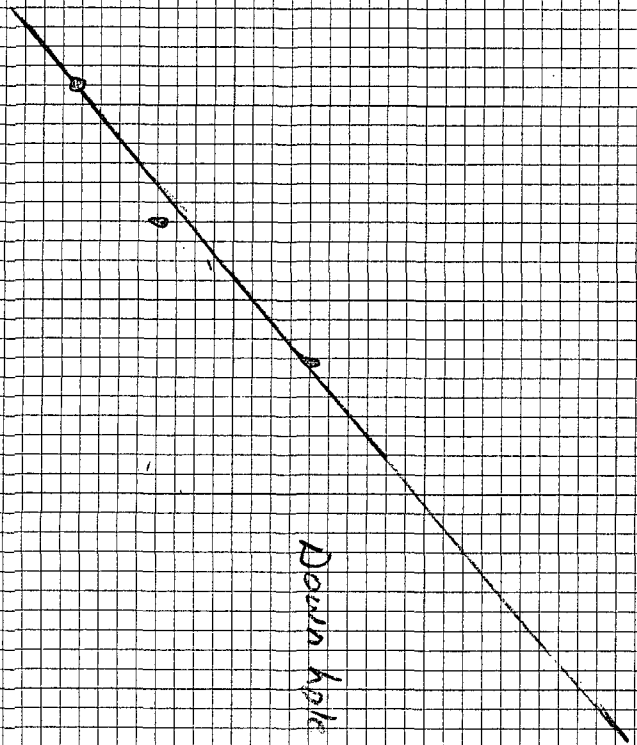
LOS CUNTY NEW MEXICO

ISIP- 1411 psi

Down hole mechanical failure @ 2710 psi

200 400 600 800 1000 1200 1400 1600 1800 2000
BAD- Rate of Injection

4500
4000
3500
3000
2500
2000
1500
1000
500
0



DNWCU NO.15-5
STEP RATE TEST
LEA COUNTY
NEW MEXICO

START TIME	END TIME	DIFF TIME MIN	LAST RATE BPD	STEP INCREASE RATE BPD	SURF PSIG	CUM BBL	DELTA BBLs	
9:00 AM	0	0	0	0	141	0.00	0.00	
9:20 AM	9:40 AM	20	576	576	2065	7.92	7.92	
9:40 AM	10:00 AM	20	720	144	2300	17.82	9.90	
10:00 AM	10:20 AM	20	864	144	2710	29.70	11.88	

NOTE: DOWNHOLE FAILURE OCCURRED WHILE PERFORMING TEST AT 2710 PSIG @ 864 BPD RATE.

NEW MEXICO

[illegible]