

DATE IN 01/08/2014	SUSPENSE	ENGINEER RG	LOGGED IN 01/10/2014	TYPE IPI	APP NO. PPG1403857273
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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 _____

*Chevron MidCont.
 Central Vacuum Unit
 #458
 30-025-38640*

[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

2014 JAN 10 10 28 AM
 RECEIVED OGD

[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.

Carolyn Havnie
 Print or Type Name

Carolyn Havnie
 Signature

NM Petro Eng Tech Assistant
 Title

1-6-14
 Date

chay@chevron.com
 e-mail Address



Paul Brown
Petroleum Engineering

MidContinent Business Unit
Chevron North America
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Tel 432-687-7351
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PaulBrown@chevron.com

January 6, 2014

New Mexico Oil Conservation Division
1200 South St. Francis Drive
Santa Fe, NM 87505

Water Injection Pressure Increase Request

Injection Order WFX-835

Maximum Wellhead Injection Pressure: 1,500 psi

Central Vacuum Unit No. 458

API No. 30-025-38640

UL A, Sec 36-17S-34E, 1,153' FNL & 848' FEL

Lea County, NM

Attn: Engineering Department:

Chevron respectfully requests that the maximum water allowable injection pressure for CVU Unit 458 be increased to 1,925 psi.

CVU Unit 458 was drilled as an injection well and is perforated from 4369' to 4781'. A step rate test was performed on the subject well and is attached for your review.

Chevron is requesting that the maximum water injection pressure be increased from its present rate of 1500 psi to 1,925 psi. Doing so will allow Chevron to utilize the full pressure capability of its injection facility. The maximum injection pressure on the CO2 will remain at 2200 psi. ✓

If additional information is required, please contact me at PaulBrown@chevron.com or call me at 432-687-7351.

Sincerely,

Paul T. Brown
Petroleum Engineer
New Mexico Area
Midland, TX

1925 psi
- 50 psi / safety } water
1875 psi } only

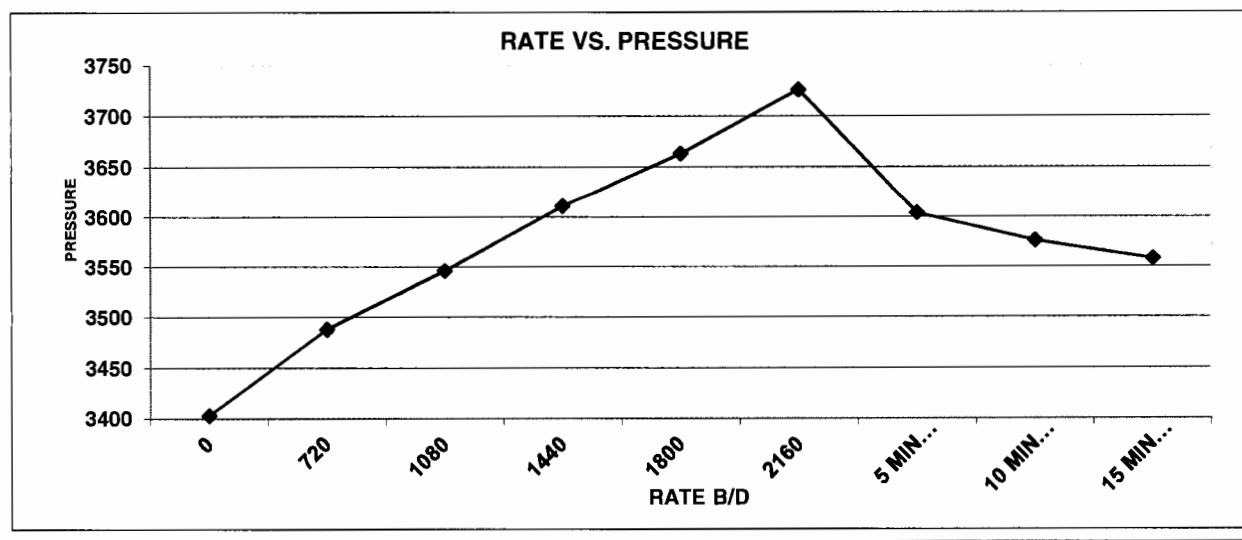
$\frac{1875 \text{ psi}}{4369 \text{ ft}} = 0.43 \text{ psi/ft}$



STEP RATE TEST

graywsi2@aol.com

RATE B/D	Date	Time	BH PRESS	SURF. PRESS	Comments
0	12/18/2013	11:38 AM	3403	1400	
720	12/18/2013	11:55 AM	3488	1550	
1080	12/18/2013	12:10 PM	3546	1675	
1440	12/18/2013	12:26 PM	3611	1800	
1800	12/18/2013	12:41 PM	3663	1925	FRAC POINT
2160	12/18/2013	12:56 PM	3726	2075	
5 MIN FALL OFF	12/18/2013	1:01 PM	3604	1660	
10 MIN FALL OFF	12/18/2013	1:06 PM	3576	1630	
15 MIN FALL OFF	12/18/2013	1:11 PM	3558	1605	
Company:	CHEVRON			Recorded By:	T. STANCZAK
Well:	CENTRAL VACUUM UNIT # 458			Witnessed By:	
Field:	VACUUM			Truck Number:	104
County:	LEA			District:	LEVELLAND
State:	NEW MEXICO			Tool Number:	
Injecton	WATER			Test Type:	STEP RATE TESTS
Shut In Time:	1:01:00 PM			FRAC ACHIEVED @ 1800 B/D	
Total Shut In Time:	15 MIN.			3663 BOTTOM HOLE PRESSURE	
Tubing Size:	2.375"			1925 SURFACE PRESSURE	
Open Hole:	N/A				
Perforations:	4369'-4781'				
Plug Back Depth	4904'				



CVU #458 Wellbore Diagram

Created: 01/08/09 By: BSPT
 Updated: 05/03/09 By: NCayce
 Updated: 06/04/09 By: N Cayce
 Lease: Central Vacuum Unit
 Field: Vacuum Grayburg San Andres
 Surf. Loc.: 1153' FNL 848' FEL
 Bot. Loc.:
 County: Lea St.: NM
 Status: Injection well

Well #: 458 St. Lse: -
 API: 30-025-38640
 Unit Ltr.: A Section: 36
 TSHP/Rng: 17S 34E
 Unit Ltr.: Section:
 TSHP/Rng:
 Directions: Buckeye, NM
 CHEVNO: LC0823
 OGRID: 4323

Surface Casing

Size: 8 5/8"
 Wt., Grd.: 24#, J-55
 Depth: 1534'
 Sxs Cmt: 1,160
 Circulate: 360 sx
 TOC: Surface
 Hole Size: 12 1/4"

Production Casing

Size: 5 1/2"
 Wt., Grd.: 17#, J-55
 Depth: 5035'
 Sxs Cmt: 1,300
 Circulate: 470 sx
 TOC: Surface
 Hole Size: 7 7/8"

Ryte-wrap csg f/ 1387'-1831'
 ECP @ ~1320

2-3/8" Fiberline tbg
 On/Off tool w/"F" 1.43 profile nipple

KB: 4,004
 DF:
 GL: 3,993
 Ini. Spud: 11/17/08
 Ini. Comp.: 02/12/09

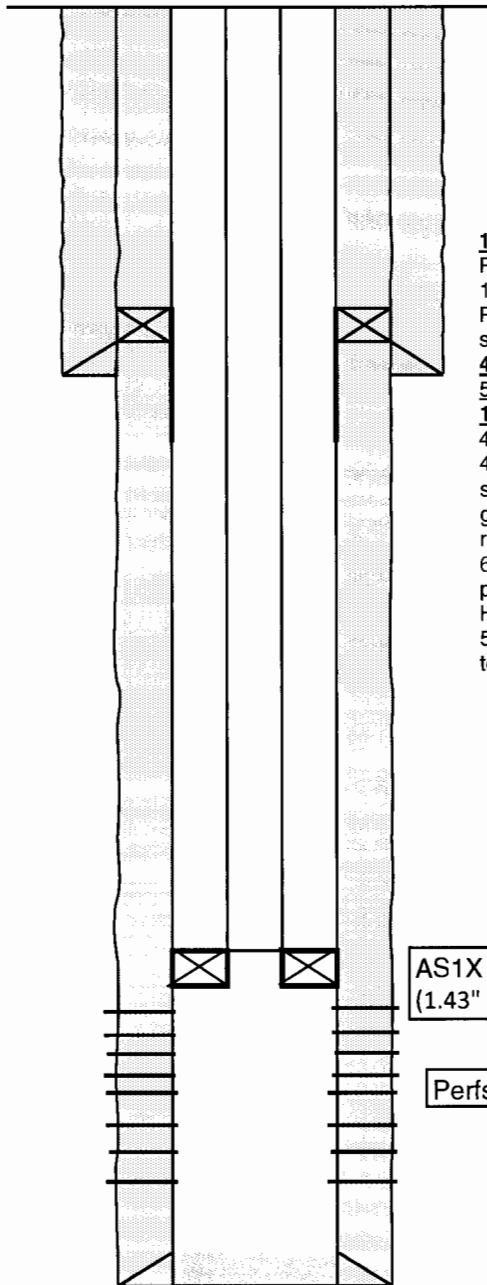
1/12/09 Perf & acidize:

Perf 4369-4781. Acidize 4545-4624 w/6000 15% HCL w/175 ball sealers. Pump 10,000 gals 15% HCL w/300 ball sealers.

4/09 Tag @ 4886'. Tbg. press 1725.

5/09 Tag @ 4889. Tbg press 1795

11/12 Re-Perf & Acidize: Tag 4,930'. Perf 4764 - 82', 4746 - 60', 4728 - 36, 4708 - 20, 4464 - 71, 4454 - 64' (this is a guess report says 4464 - 94' which does not seem correct, gun are a max of 20' in length), 7th run not recorded, 4425 - 30', 4389 - 97', 4369 - 89 w/ 6 spf propellant charge (Stingun). Acidize perfs from 4,369 - 4,471' w/ 12,000g 15% HCl. Avg rate 7 BPM, avg press 3,360 psi. Set 5-1/2" AS1X pkr at 4,320' (1.43" PN & O/O tool).



AS1X Pkr @4320'
 (1.43" PN & O/O tool)

Perfs 4369-4781'

PBTD: 4,904
 TD: 5,035