

DATE IN 6/23/2016	SUSPENSE	ENGINEER MAM	LOGGED IN 6/24/2016	TYPE IPI	APP NO. PMAm1617632654
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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.

CINDY HERRERA-MURILLO
 Print or Type Name

Cindy Herrera-Murillo
 Signature

PERMITTING SPECIALIST
 Title

06/21/2016
 Date

Cherreramurillo@chevron.com
 e-mail Address

- IPI 508
 - Chevron USA, Inc
 4323

RECEIVED OGD
 JUN 23 10 30 AM

- 6241
 - Central Valley
 #14
 30-025-25811
 - Central Valley
 #120
 30-025-25801
 Pool
 - Valley Gravelly
 San Andres
 62180

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-25811
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other INJECTOR		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator CHEVRON USA INC		6. State Oil & Gas Lease No.
3. Address of Operator 1616 W. BENDER BLVD HOBBS, NM 88240		7. Lease Name or Unit Agreement Name CENTRAL VACUUM UNIT
4. Well Location Unit Letter <u>E LOT 2</u> : <u>2630</u> feet from the <u>NORTH</u> line and <u>1283</u> feet from the <u>WEST</u> line Section <u>30</u> Township <u>17S</u> Range <u>35E</u> NMPM County <u>LEA</u>		8. Well Number <u>14</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3990' GL		9. OGRID Number 4323
		10. Pool name or Wildcat VACUUM; GRAYBURG SAN ANDRES

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: RESULTS OF STEP RATE TEST <input checked="" type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

CHEVRON USA INC. IS REQUESTING FOR AN INCREASE IN PRESSURE LIMIT ON THE ABOVE WELL.

PLEASE FIND ATTACHED RESULTS OF A STEP RATE TEST THAT WAS RUN ON 06/07/2016.

EXPECTED RATE,BWPD : 1800
EXPECTED PRESSURE,PSI: 2000

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Cindy Herrera-Murillo TITLE PERMITTING SPECIALIST DATE 06/21/2016

Type or print name CINDY HERRERA-MURILLO E-mail address: Cherreramurillo@chevron.com PHONE: 575-263-0431

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

CHEVRON

CENTRAL VACUUM UNIT # 14

June 8, 2016

JOB INFORMATION SHEET

Company Information	
Company Name:	CHEVRON
Address:	1500 LOUISIANA STREET HOUSTON, TX 77002
Well Information	
Well Name:	CENTRAL VACUUM UNIT # 14
Field – Pool:	VACUUM
Status:	SHUT-IN
Test Information	
Type of Test:	STEP RATE
Gauge Depth:	4395'
Production Interval:	4400'-4812'
Production Through:	TUBING
Tubing Pressure:	2125 psi
Casing Pressure:	0 psi
Status:	SHUT-IN
Temperature @ Run Depth	90.25 degF
Surface Temperature:	83.59 degF
Comments	
FRAC @ 1800 B/D 2025 SURFACE PSI 3773 BOTTOM HOLE PRESSURE	

QES

CHEVRON
1500 LOUISIANA STREET
HOUSTON, TX 77002

WELL INFORMATION SHEET

Well:	CENTRAL VACUUM UNIT # 14		
Well License:		Unique Well Identifier:	30-025-25811
Company:	CHEVRON		
Field	VACUUM		

Location:		County:	LEA
Formation:		State:	NM
Purpose:	STEP RATE TEST	Country:	USA

Total Depth:	4395'	ID Borehole:	N/A
Packer Depth:	4365'	ID Production Casing:	4"
Depth of whipstock:	N/A	OD Production Tubing:	2.375"
Depth at which casing is landed:	4870'	ID Production Tubing:	1.9'
Depth at which tubing is landed:	4365'	ID Drill Pipe:	N/A

QES

Gradient Data Report

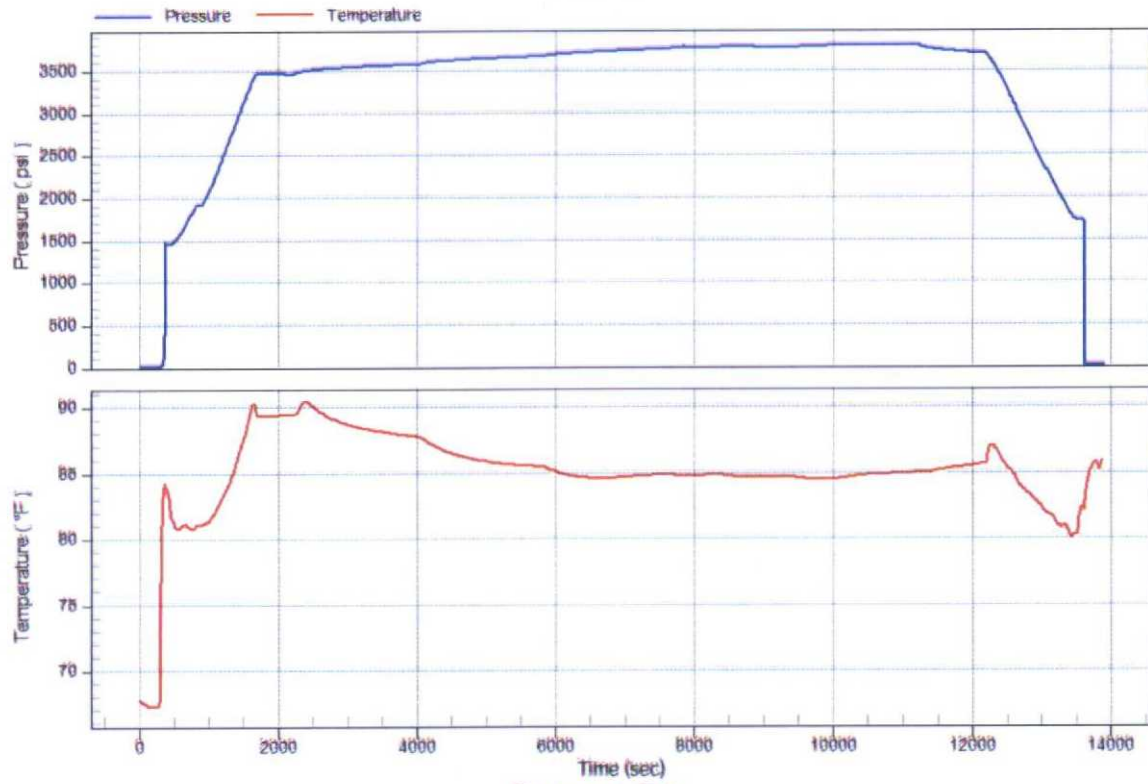
CHEVRON
CENTRAL VACUUM UNIT # 14

Gradient Data Table

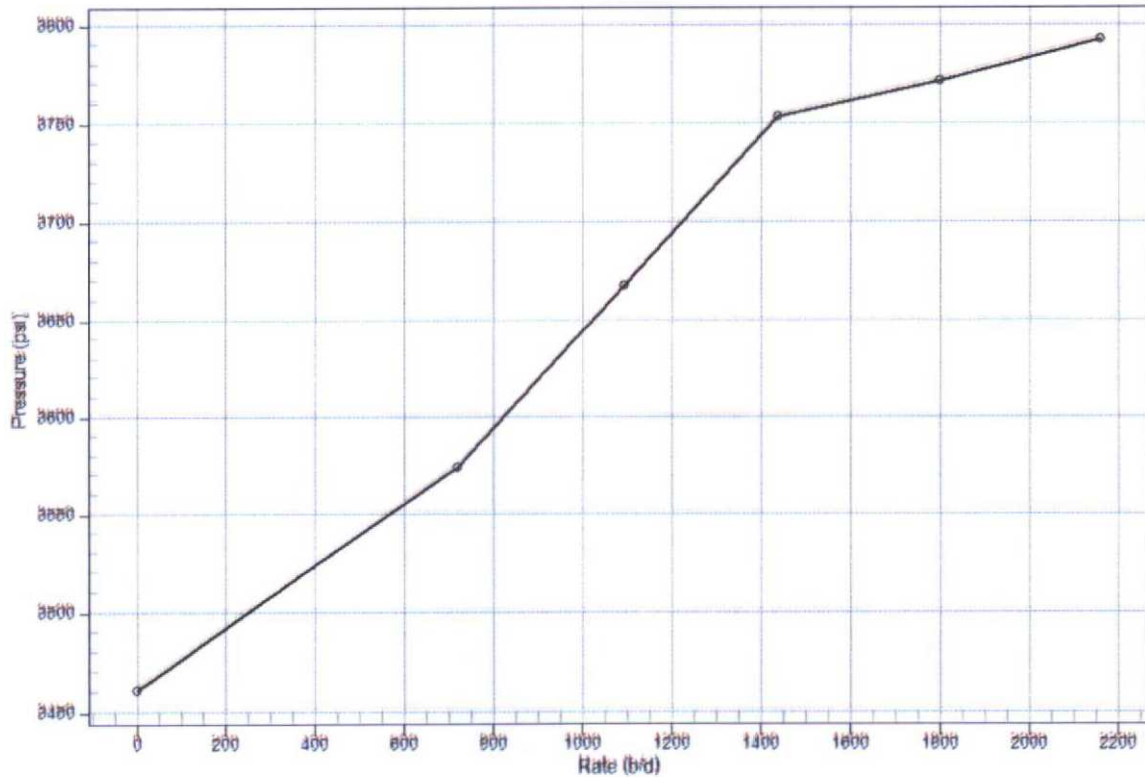
Rate b/d	Pressure psi	Temperature degF	Gradient psi/rate
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720.00	3574.47	87.50	0.1573
1094.00	3667.69	85.25	0.2493
1440.00	3753.45	84.60	0.2479
1800.00	3771.21	84.39	0.0493
2160.00	3792.58	84.77	0.0593

QES

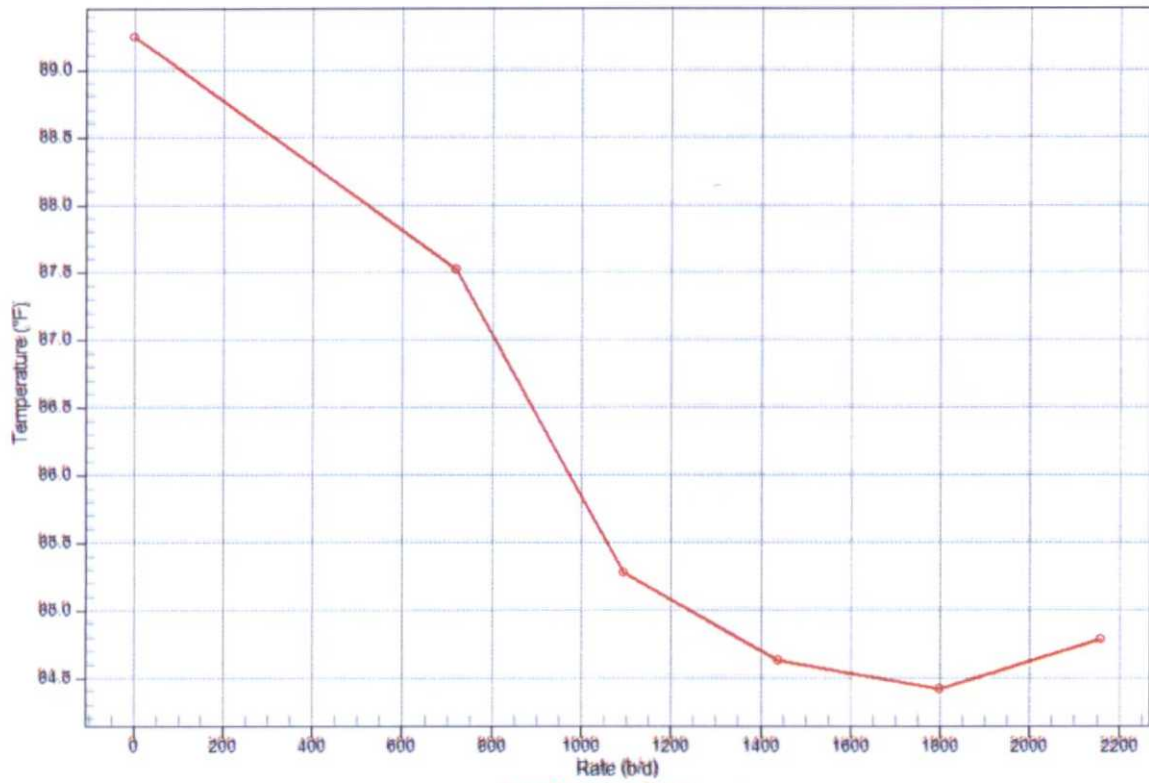
CVU # 14



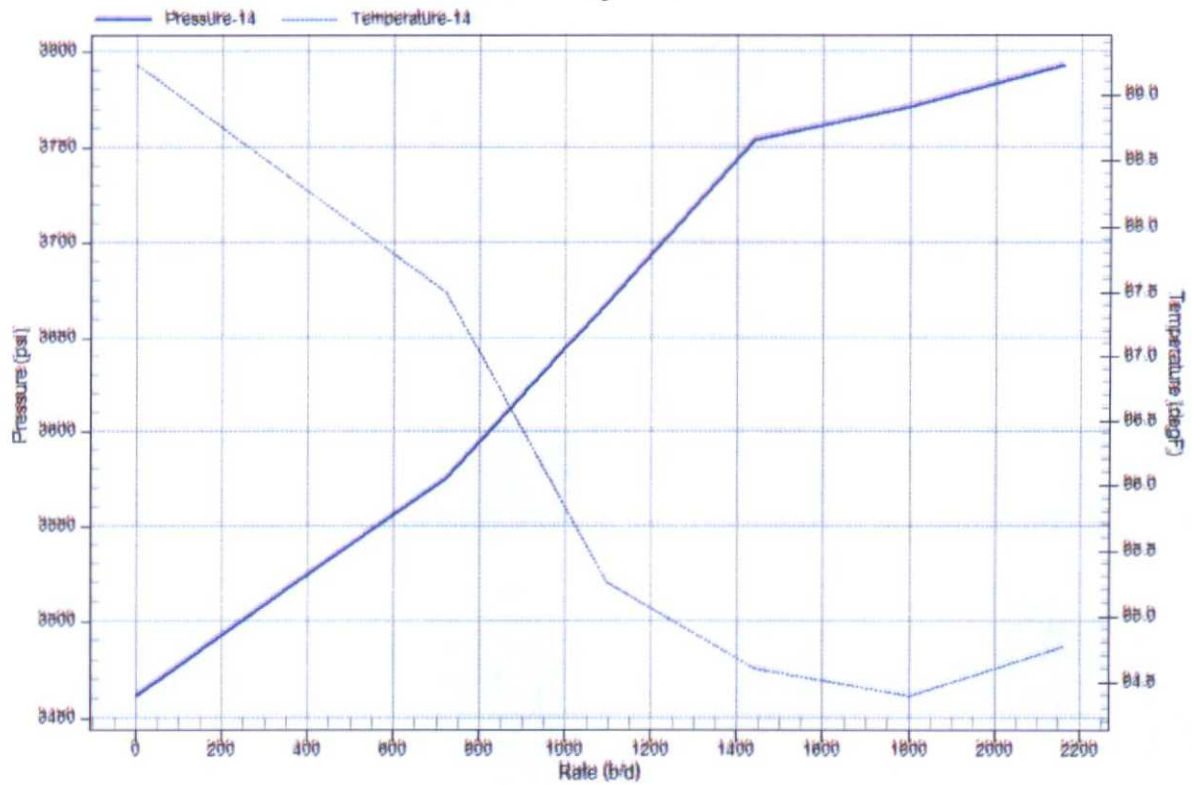
Pressure vs. Rate



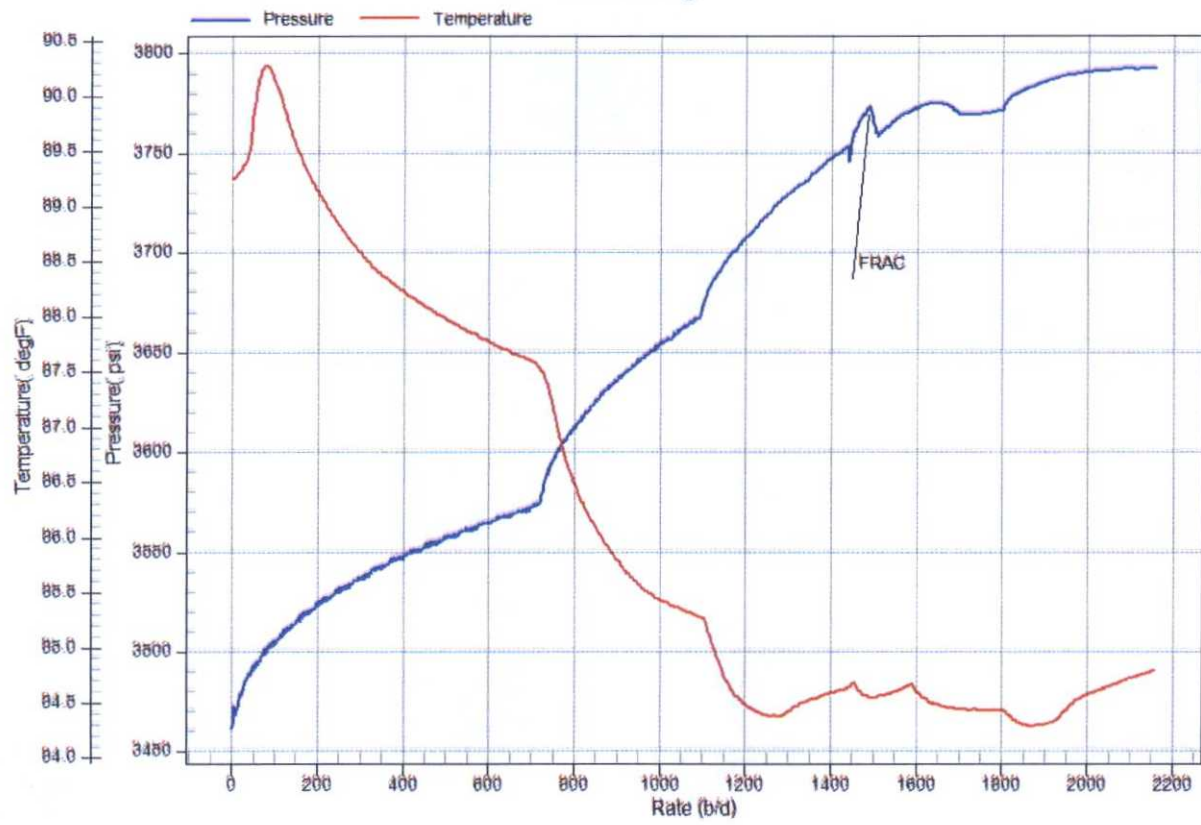
Temperature vs. Rate



Pres/Temp vs Rate



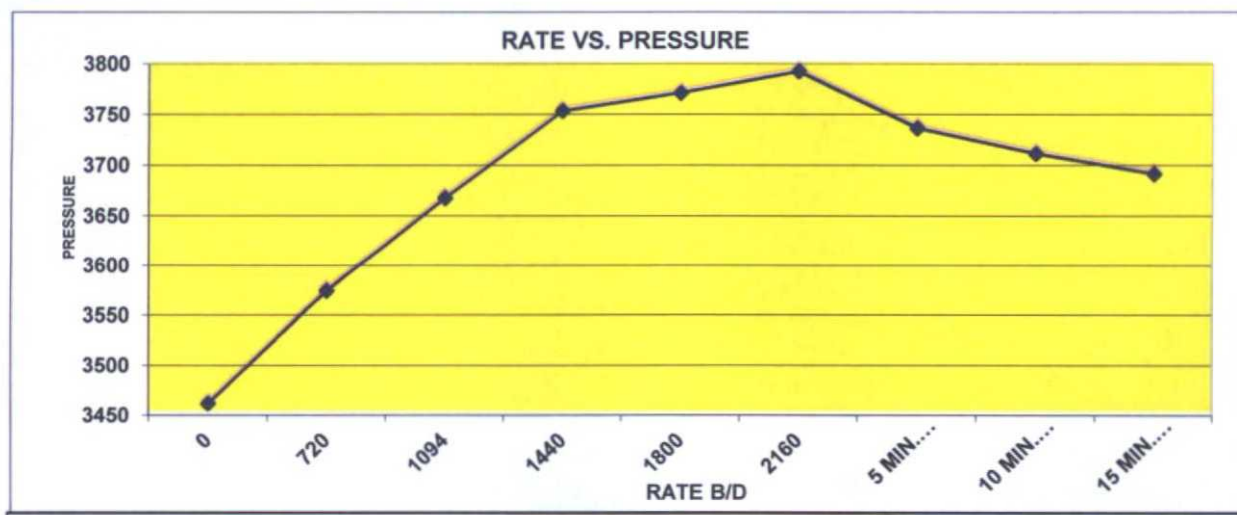
Pressure Log





STEP RATE TEST

RATE B/D	Date	Time	BH PRESS	SURF. PRESS	Comments
0	6/8/2016	8:25 AM	3461	1440	
720	6/8/2016	8:55 AM	3574	1700	
1094	6/8/2016	9:25 AM	3667	1830	
1440	6/8/2016	9:55 AM	3753	1870	
1800	6/8/2016	10:25 AM	3771	2040	FRAC
2160	6/8/2016	10:55 AM	3792	2125	
5 MIN. FALLOFF	6/8/2016	11:00 AM	3736	1825	
10 MIN. FALLOFF	6/8/2016	11:05 AM	3711	1805	
15 MIN. FALLOFF	6/8/2016	11:10 AM	3691	1790	
Company:	CHEVRON USA			Recorded By:	T. STANCZAK
Well:	CVU # 14			Witnessed By:	
Field:	VACUUM			Truck Number:	104
County:	LEA			District:	LEVELLAND
State:	NM			Tool Number:	
Injector:	WATER			Test Type:	STEP RATE TESTS
Tubing Size:	2.375"			FRAC	
Seat Nipple Depth:	N/A			2125 SURFACE PRESSURE	
Perforations:	4400'-4812'			3773 BOTTOM HOLE PRESSURE	
Plug Back Depth	N/A			1800 B/D	



Submit 1 Copy To Appropriate District Office
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811 S. First St., Artesia, NM 88210
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
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Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-25801
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other INJECTOR		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator CHEVRON USA INC		6. State Oil & Gas Lease No.
3. Address of Operator 1616 W. BENDER BLVD HOBBS, NM 88240		7. Lease Name or Unit Agreement Name CENTRAL VACUUM UNIT
4. Well Location Unit Letter <u>D LOT 1</u> : <u>60</u> feet from the <u>NORTH</u> line and <u>1100</u> feet from the <u>WEST</u> line Section <u>07</u> Township <u>18S</u> Range <u>35E</u> NMPM County <u>LEA</u>		8. Well Number <u>120</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3973' GL		9. OGRID Number 4323
		10. Pool name or Wildcat VACUUM; GRAYBURG SAN ANDRES

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:
REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: RESULTS OF STEP RATE TEST ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

CHEVRON USA INC. IS REQUESTING FOR AN INCREASE IN PRESSURE LIMIT ON THE ABOVE WELL.

PLEASE FIND ATTACHED RESULTS OF A STEP RATE TEST THAT WAS RUN ON 06/07/2016.

EXPECTED RATE,BWPD : 1800
EXPECTED PRESSURE,PSI: 1850

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Cindy Herrera-Murillo TITLE PERMITTING SPECIALIST DATE 06/21/2016

Type or print name CINDY HERRERA-MURILLO E-mail address: Cherreramurillo@chevron.com PHONE: 575-263-0431

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

CHEVRON

CENTRAL VACUUM UNIT # 120

June 7, 2016

JOB INFORMATION SHEET

Company Information	
Company Name:	CHEVRON
Address:	1500 LOUISIANA STREET HOUSTON, TX 77002
Well Information	
Well Name:	CENTRAL VACUUM UNIT # 120
Field – Pool:	VACUUM
Status:	SHUT-IN
Test Information	
Type of Test:	STEP RATE
Gauge Depth:	4530'
Production Interval:	4557'-4722'
Production Through:	TUBING
Tubing Pressure:	2330 psi
Casing Pressure:	0 psi
Status:	SHUT-IN
Temperature @ Run Depth	90.13 degF
Surface Temperature:	82.43 degF
Comments	
POSSIBLE SOFT FRAC @ 1875 SURFACE PRESSURE 3577 BOTTOM HOLE PRESSURE 1814 B/D	

QES

CHEVRON
1500 LOUISIANA STREET
HOUSTON, TX 77002

WELL INFORMATION SHEET

Well:	CENTRAL VACUUM UNIT # 120		
Well License:		Unique Well Identifier:	30-025-25901
Company:	CHEVRON		
Field	VACUUM		

Location:		County:	LEA
Formation:		State:	NM
Purpose:	STEP RATE TEST	Country:	USA

Total Depth:	4530'	ID Borehole:	N/A
Packer Depth:	4462'	ID Production Casing:	4"
Depth of whipstock:	N/A	OD Production Tubing:	2.375"
Depth at which casing is landed:	4800'	ID Production Tubing:	2"
Depth at which tubing is landed:	4462'	ID Drill Pipe:	N/A

QES

Gradient Data Report

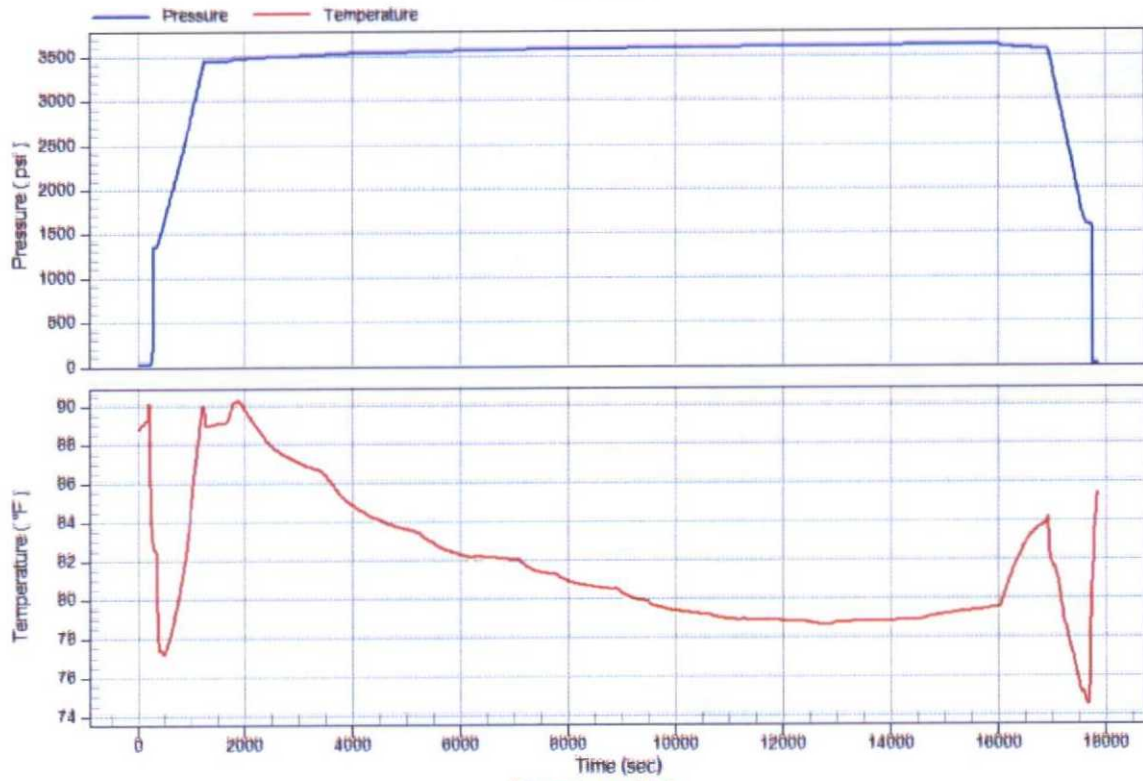
CHEVRON
CENTRAL VACUUM UNIT # 120

Gradient Data Table

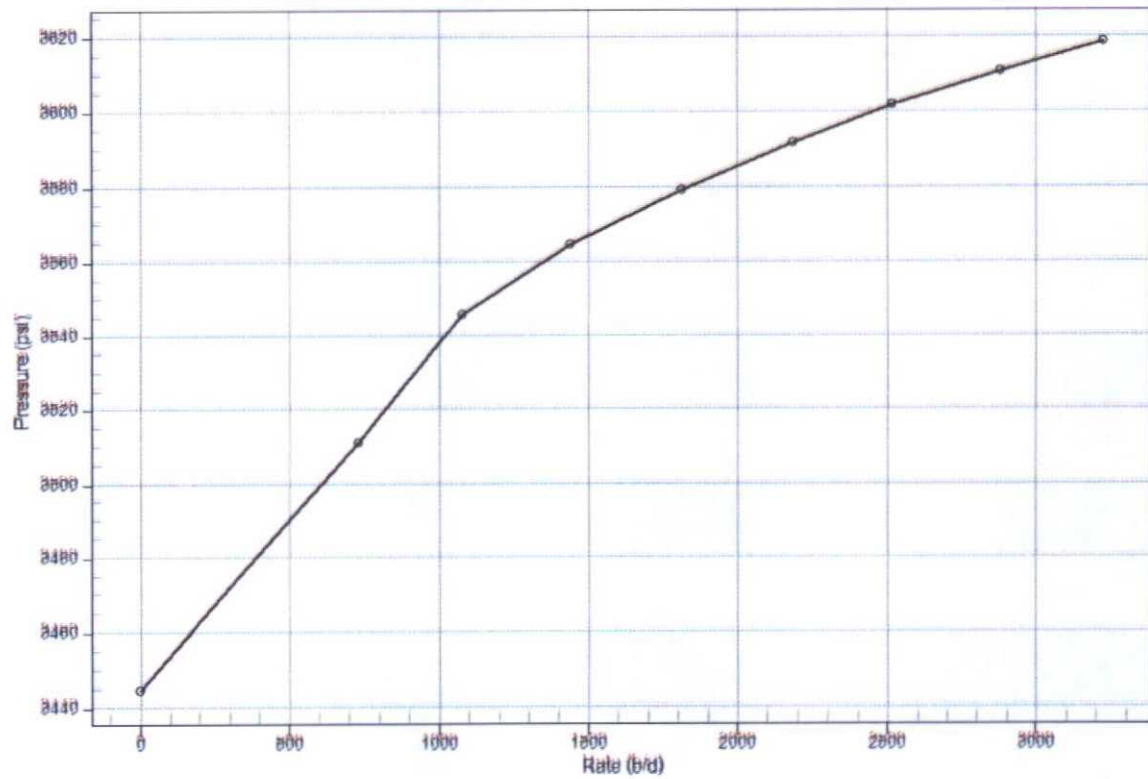
Rate b/d	Pressure psi	Temperature degF	Gradient psi/rate
0.00	3444.85	88.96	0.0000
734.00	3511.17	86.52	0.0903
1080.00	3546.17	83.32	0.1012
1440.00	3564.79	81.87	0.0517
1814.00	3579.18	80.35	0.0385
2188.00	3591.74	79.03	0.0336
2520.00	3602.01	78.69	0.0310
2880.00	3610.88	78.72	0.0246
3225.00	3618.77	79.39	0.0229

QES

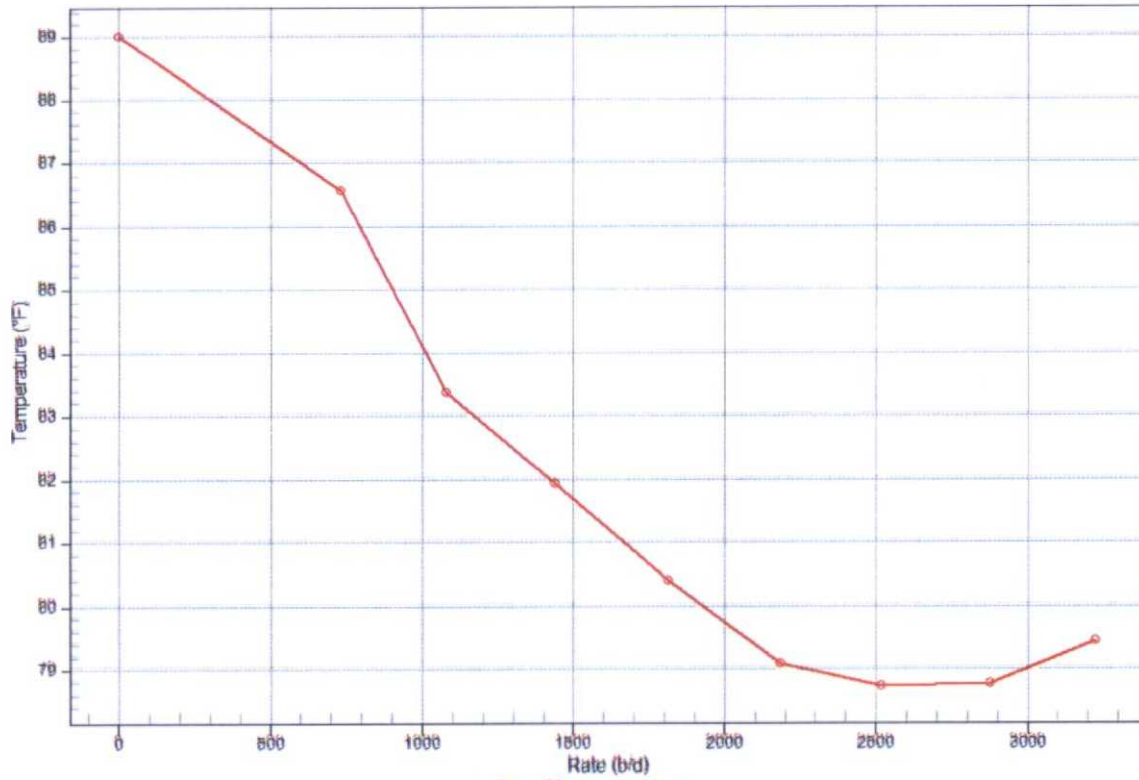
CVU # 120



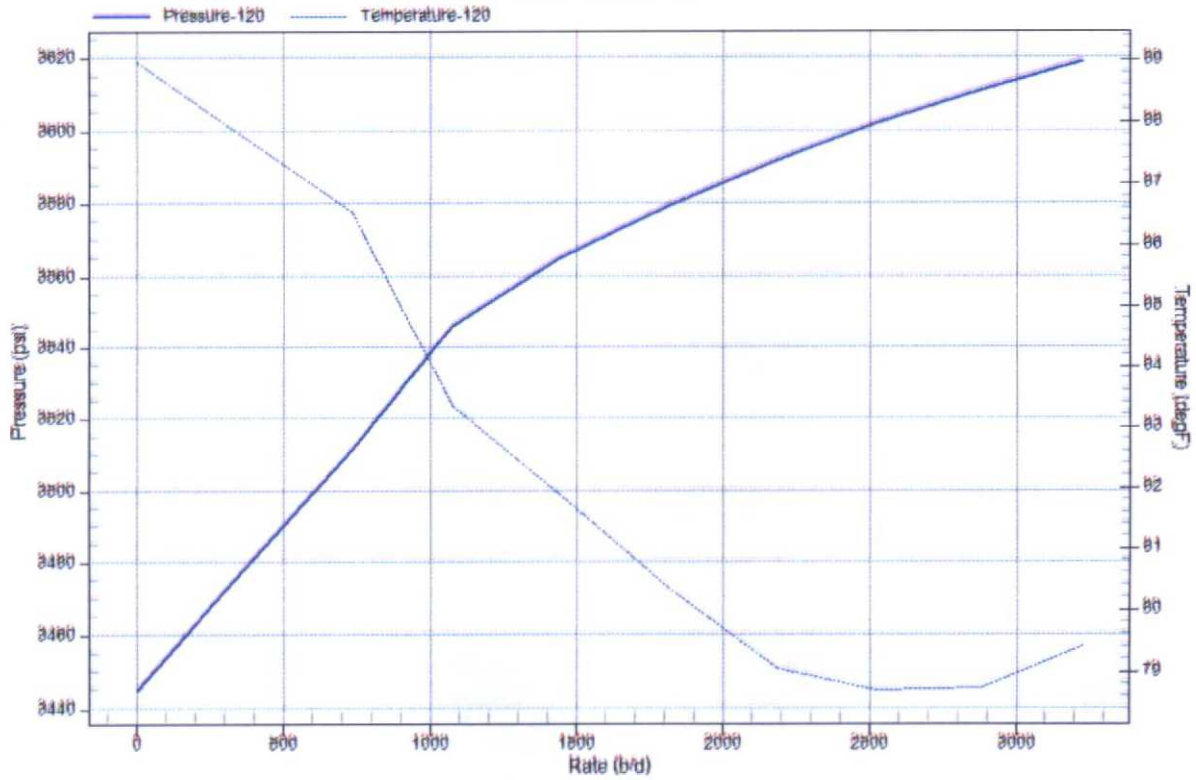
Pressure vs. Rate



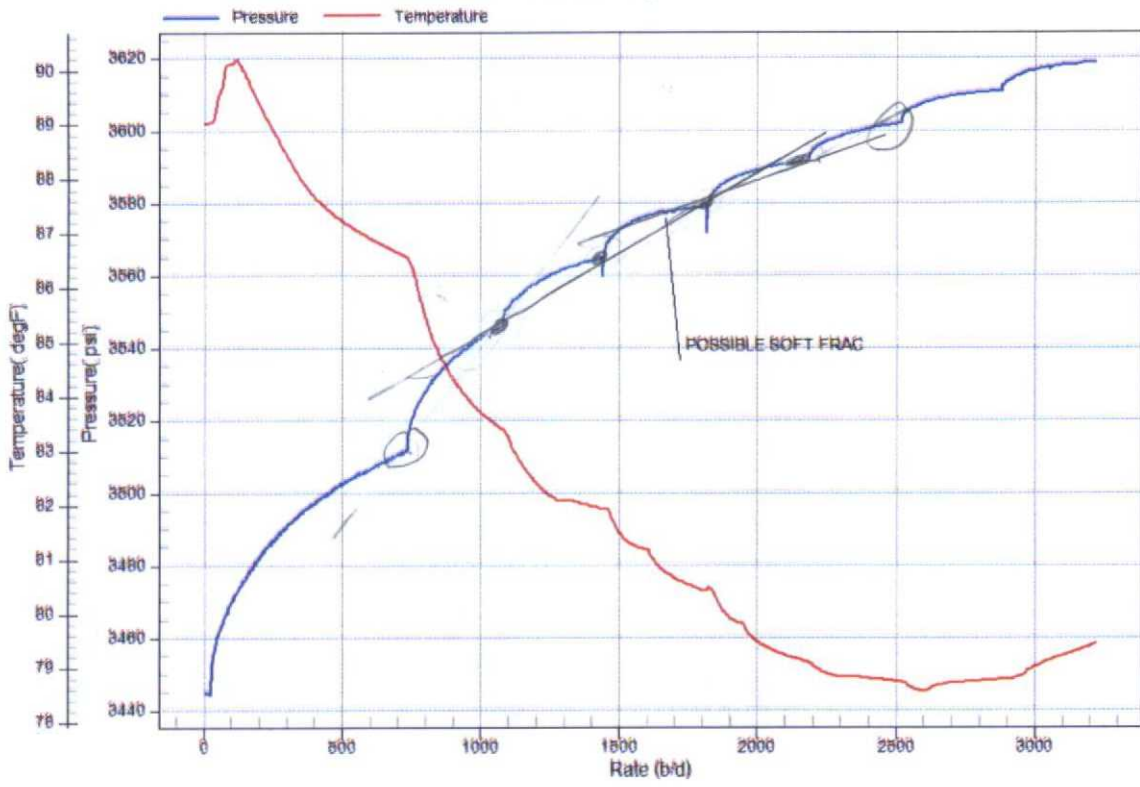
Temperature vs. Rate



Pres/Temp vs Rate



Pressure Log

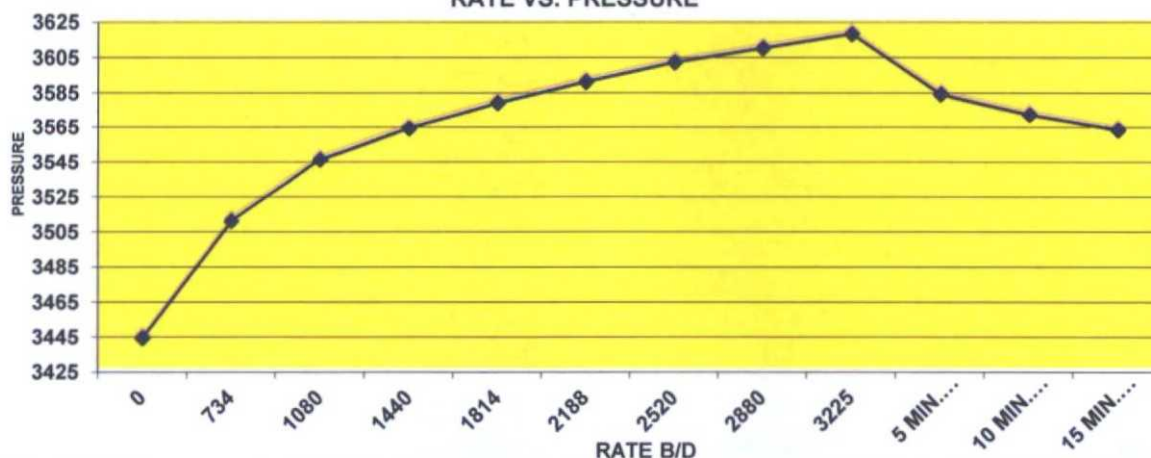




STEP RATE TEST

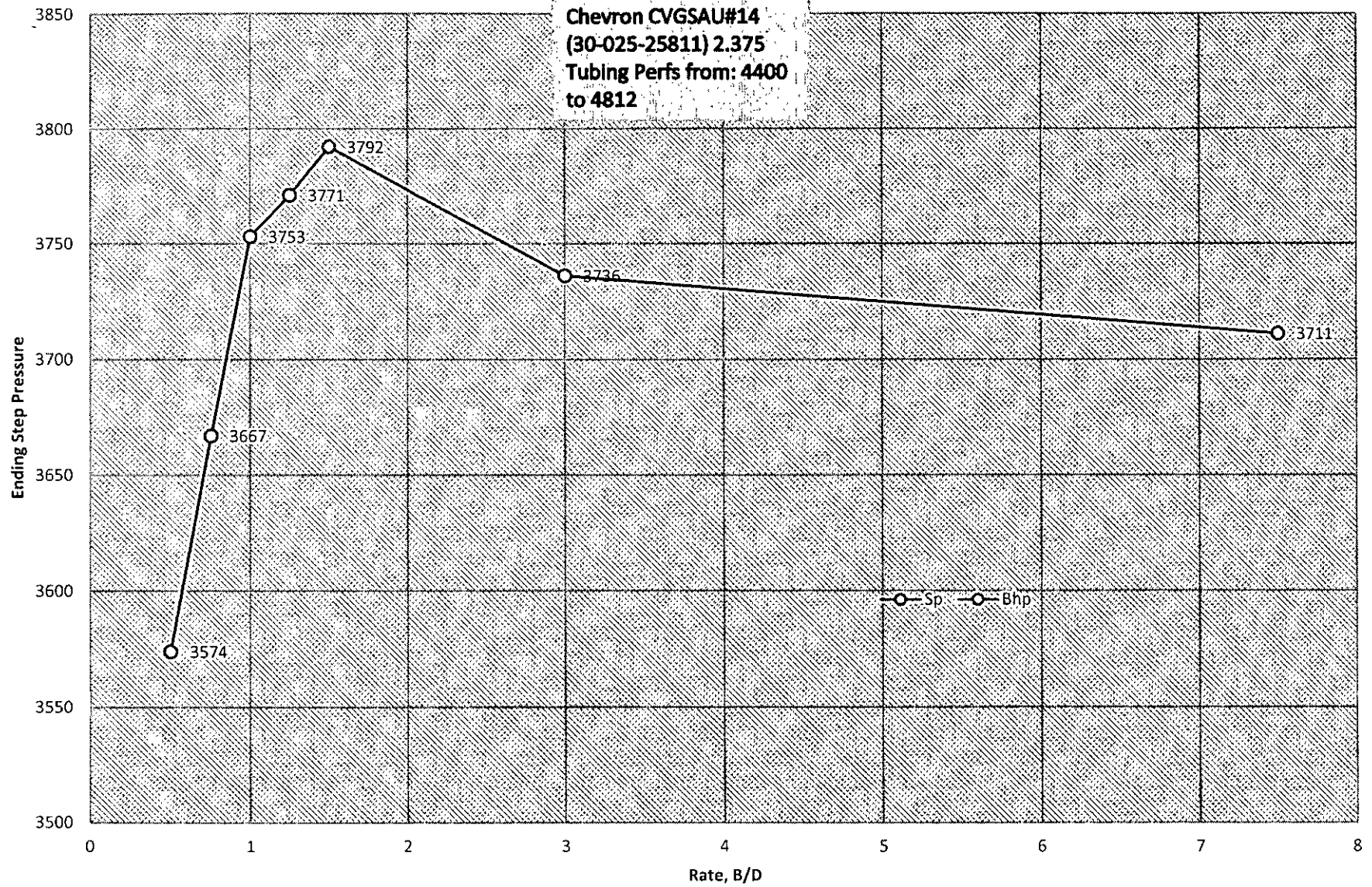
RATE B/D	Date	Time	BH PRESS	SURF. PRESS	Comments
0	6/7/2016	11:40 AM	3444	1350	
734	6/7/2016	12:10 PM	3511	1610	
1080	6/7/2016	12:40 PM	3546	1690	
1440	6/7/2016	1:10 PM	3564	1790	
1814	6/7/2016	1:40 PM	3579	1880	POSSIBLE SOFT FRAC
2188	6/7/2016	2:10 PM	3591	1975	
2520	6/7/2016	2:40 PM	3602	2060	
2880	6/7/2016	3:10 PM	3610	2190	
3225	6/7/2016	3:40 PM	3618	2330	
5 MIN. FALLOFF	6/7/2016	3:45 PM	3584	1645	
10 MIN. FALLOFF	6/7/2016	3:50 PM	3572	1625	
15 MIN. FALLOFF	6/7/2016	3:55 PM	3563	1605	
Company: CHEVRON USA			Recorded By: T. STANCZAK		
Well: CVU # 120			Witnessed By:		
Field: VACUUM			Truck Number: 104		
County: LEA			District: LEVELLAND		
State: NM			Tool Number:		
Injector: WATER			Test Type: STEP RATE TESTS		
Tubing Size: 2.375"			POSSIBLE SOFT FRAC		
Seat Nipple Depth: N/A			1875 SURFACE PRESSURE		
Perforations: 4557'-4722'			3577 BOTTOM HOLE PRESSURE		
Plug Back Depth: N/A			1814 B/D		

RATE VS. PRESSURE



Step Rate Test Results

Chevron CVGSAU#14
(30-025-25811) 2.375
Tubing Perfs from: 4400
to 4812



Chevron = Input Cells in Green

CVGSAU#14

30-025-25811

Chevron = Calculated Cells in Yellow

CVGSAU#14 (30-025-25811)

TopPerf 4400 BotPerf 4812 Tubing 2.375
Perfs

2.375 Tubing

Perfs from: 4400 to 4812

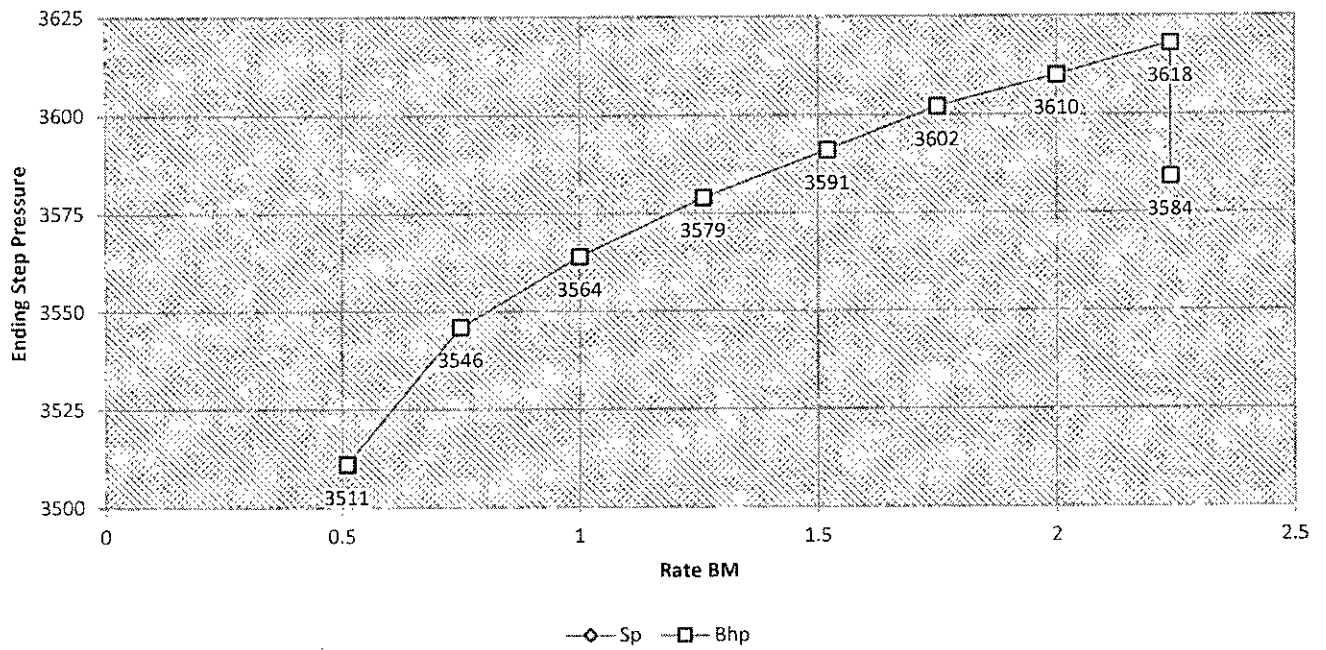
		BPD Rate				
Step	Increment	0	Sp	Bhp		
1	0.5	0.5	1700	3574		
2	0.25	0.75	1830	3667		
3	0.25	1	1870	3753		
4	0.25	1.25	2040	3771		
5	0.25	1.5	2125	3792		
6	1.5	3	1825	3736		
7	4.5	7.5	1805	3711		

frac

0.41

Chevron CVGSAU#14 (30-025-25811) 2.375
Tubing Perfs from: 4400 to 4812

Step Rate Tests



Chevron = Input Cells in Green

CVGSAU#120

30-025-25801

Chevron = Calculated Cells in Ye

CVGSAU#120 (30-025-25801)

TopPerf BotPerf Tubing

Perfs 4557 4722 2.375

2.375 Tubing

BPD Rate

Perfs from: 4557 to 4722

Step	Increment	0	Sp	Bhp	
1	0.51	0.51		1610	3511
2	0.24	0.75		1690	3546
3	0.25	1		1790	3564
4	0.26	1.26		1880	3579
5	0.26	1.52		1975	3591
6	0.23	1.75		2060	3602
7	0.25	2		2190	3610
8	0.24	2.24		2330	3618
9	0	2.24		1645	3584

frac

0.40

gradient

Chevron

CVGSAU#120 (30-

025-25801) 2.375

Tubing Perfs from:

4557 to 4722



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

Lori Wrotenbery

Director

Oil Conservation Division

November 5, 2001

Texaco Exploration & Production, Inc.
P.O. Box 3109
Midland, Texas 79702-3019

IPI-164

Attn: Mr. Stephen Guillot

**RE: Injection Pressure Increase,
Central Vacuum Unit Tertiary Recovery Project,
Lea County, New Mexico**

Dear Mr. Guillot:

Reference is made to your request dated October 19, 2001, to increase the surface injection pressure on two wells within the above-referenced tertiary recovery project. This request is based on step rate tests conducted on the subject wells on September 21 and October 1, 2001. The results of the tests have been reviewed by my staff and we feel an increase in injection pressure on these wells is justified at this time.

You are therefore authorized to increase the surface injection pressure on the following wells:

<i>Well and Location</i>	<i>Maximum Surface Injection Pressure Water</i>	<i>Maximum Surface Injection Pressure CO₂</i>
Central Vacuum Unit Well No. 14 API No. 30-025-25811 Unit E, Section 30, T-17S, R-35E	1578 PSIG / .36 PSI	N/A
Central Vacuum Unit Well No. 294 API No. 30-025-35398 Unit B, Section 6, T-18S, R-35E	1500 PSIG	1850 PSIG
All wells located in Lea County, New Mexico.		

Injection Pressure Increase
Texaco Exploration & Production, Inc.
November 5, 2001
Page 2

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,



Lori Wrotenbery
Director

LW/DRC

cc: Oil Conservation Division - Hobbs
Files: Case No. 6008, PMX-212; PSI-X-2001