

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NMOC  
Hobbs

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.  
NMNM27506

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No.  
SALADO DRAW 29 26 33 FED COM 3H

9. API Well No.  
30-025-42638-00-S1

10. Field and Pool, or Exploratory  
WC025G06S263319P-BONE SPRING

11. Sec., T., R., M., or Block and Survey  
or Area Sec 29 T26S R33E Mer NMP

12. County or Parish  
LEA

13. State  
NM

17. Elevations (DF, KB, RT, GL)\*  
3215 GL

22. Was well cored? ☒ No ☐ Yes (Submit analysis)  
Was DST run? ☒ No ☐ Yes (Submit analysis)  
Directional Survey? ☐ No ☒ Yes (Submit analysis)

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other

b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.  
Other

2. Name of Operator  
CHEVRON USA INCORPORATED

Contact: DENISE PINKERTON  
E-Mail: leakejd@chevron.com

3. Address 15 SMITH ROAD  
MIDLAND, TX 79705

3a. Phone No. (include area code)  
Ph: 432-687-7375

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*  
At surface Sec 29 T26S R33E Mer NMP  
NENW 200FNL 1333FWL  
At top prod interval reported below Sec 32 T26S R33E Mer NMP  
Lot 3 479FSL 1755FWL  
At total depth Sec 32 T26S R33E Mer NMP  
Lot 3 479FSL 1755FWL

14. Date Spudded  
10/04/2015

15. Date T.D. Reached  
11/10/2015

16. Date Completed  
☐ D & A ☒ Ready to Prod.  
02/26/2016

18. Total Depth: MD 16489  
TVD 9249

19. Plug Back T.D.: MD 16421  
TVD

20. Depth Bridge Plug Set: MD  
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
CCL GR CBL

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	843		1005		0	
12.250	9.625 HCK-55	40.0	0	4755		460		0	
8.750	5.500 P-110	20.0	0	16474		2219		4270	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8697	8663						

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	9578	16300	9578 TO 16300			PRODUCING (DETAILED PERF II
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9578 TO 163300	FRAC W/TOTAL SAND (SAND 100 & SAND 40/70) = 8,305,380 LBS (DETAILED INFO ATTACHED)

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
03/04/2016	06/04/2016	24	→	359.0	488.0	1624.0			FLows FROM WELL
Choke Size	Tbg. Press. Flwg. 969 SI	Csg. Press. 1127.0	24 Hr. Rate →	Oil BBL 359	Gas MCF 488	Water BBL 1624	Gas:Oil Ratio 1359	Well Status POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #349686 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

RECLAMATION DUE:  
AUG 26 2016

PETROLEUM ENGINEER

ACCEPTED FOR RECORD  
DAVID R. GLASS  
OCT 21 2016

K2



# Exhibit A-2

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

**District II**  
811 B. First St., Arma, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

**District III**  
1000 Rio Brazos Road, Arco, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**

1220 South St. Francis Dr.  
Santa Fe, NM 87505

JUN 16 2015

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-025-42658	<sup>2</sup> Pool Code 97955	<sup>3</sup> Pool Name WC-025 G-06 52633.9P; B5
<sup>4</sup> Property Code 314194	<sup>5</sup> Property Name SALADO DRAW 29 26 33 FED COM	
<sup>6</sup> OCID No. 4323	<sup>7</sup> Operator Name CHEVRON U.S.A. INC.	
		<sup>8</sup> Well Number 3H
		<sup>9</sup> Elevation 3215'

**" Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	29	26 SOUTH	33 EAST, N.M.P.M.		200'	NORTH	1333'	WEST	LEA

**" Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	32	26 SOUTH	33 EAST, N.M.P.M.	3	280'	SOUTH	1876'	WEST	LEA

<sup>12</sup> Dedicated Acres: 237.4431  
<sup>13</sup> Joint or Infill: 31  
<sup>14</sup> Consolidation Code: 1757'

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p><b>SALADO DRAW 29 26 33 FED COM NO. 3H WELL</b></p> <p>X= 727,888 NAD 27 Y= 372,173 LAT. 32.021087 LONG. 103.598039</p> <p>X= 769,076 NAD83 Y= 372,230 LAT. 32.021212 LONG. 103.598506</p> <p>ELEVATION +3215' NAVD 88</p>		<p><b>" OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Cindy Herrera-Murillo 09-18-14 Signature Date Cindy Herrera-Murillo Printed Name CherreraMurillo@chevron.com E-mail Address</p>
<p><b>PROPOSED BOTTOM HOLE LOCATION</b></p> <p>X= 728,291 NAD 27 Y= 384,827 LAT. 32.000886 LONG. 103.596900</p> <p>X= 769,479 NAD83 Y= 364,884 LAT. 32.001012 LONG. 103.597366</p>		<p><b>" SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>5.7.14 Date of Survey J. Daniel III Signature and Seal of Professional Surveyor NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15078</p>

**CORNER COORDINATES TABLE (NAD 27)**

A - Y=372373.27, X=727875.49  
B - Y=372382.09, X=728197.59  
C - Y=371053.27, X=727885.85  
D - Y=371062.70, X=728207.70  
E - Y=384544.81, X=727938.29  
F - Y=364553.99, X=728269.12

JUN 16 2015

## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)  
SOLD

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
RED BEDS	0	770		RUSTLER	770
RUSTLER	770	3089	ANHYDRITE	CASTILE	3090
CASTILE	3090	4839	ANHYDRITE	DELAWARE	4840
DELAWARE	4840	4859	LIMESTONE	BELL CANYON	4860
BELL CANYON	4860	6251	SANDSTONE	CHERRY CANYON	6252
CHERRY CANYON	6252	7564	SANDSTONE	BRUSHY CANYON	7565
BRUSHY CANYON	7565	9024	SANDSTONE	BONE SPRING LIME	9025
BONE SPRING LIME	9025	9055	LIMESTONE	AVALON	9056
AVALON	9056	16489	SHALE		

## 32. Additional remarks (include plugging procedure):

## 33. Circle enclosed attachments:

- |   |                    |               |                       |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.)     | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis   | 7 Other:      |                       |

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #349686 Verified by the BLM Well Information System.  
For CHEVRON USA INCORPORATED, sent to the Hobbs  
Committed to AFMSS for processing by DEBORAH HAM on 10/20/2016 (17DMH0004SE)

Name (please print) DENISE PINKERTONTitle PERMITTING SPECIALISTSignature (Electronic Submission)Date 08/31/2016

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.

**\*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\***



**SALADO DRAW 29 26 33 FED COM #003H**

**PERF & FRAC INFORMATION**

**STAGE 1: 16178, 16118, 16058**

6 spf, .41 dia hole. Pump down using 1251 bbls treat water @ 15bpm. Max press-8400psi.

**PUMP STAGE 1:**

Sand in formation 312,000lbs 132% Prime up & test lines to 9500psi.  
Equalize/open well @ 900 psi. Avg Rate 84.1 bpm. Avg press:6035 psi.  
Max Rate: 87.0 bpm Max Press:7668 psi. ISIP:1603 psi  
Pump Time 121 mins Total clean fluid 8849 bbls Total slurry volume 9303 bbls  
Sand pumped: Sand 100 – 32,000 lbs Sand 40/70 – 381,340 lbs TOTAL:413,340 lbs

**STAGE 2: 15986, 15929, 15872, 15814, 15766**

6 jspf, .41 dia hole. Pump down @ 13 bpm 1900 psi line tension before set 1703# 1538# after 589 bbls pmpd.

**PUMP STAGE 2:**

Sand in formation 419,850 lbs: 98% Test lines to 9500 psi.  
Equalize/open well @ 930 psi. Avg Rate: 83.0bpm Avg Pressure 6796 psi  
Max rate: 85.0bpm Max Pressure 7732 psi ISIP 1727 psi  
Pump Time: 126 mins. Total clean fluid:8735 bbls Total Slurry volume:9179 bbls  
Sand pumped: Sand 100 – 32,320 lbs, Sand 40/70: 378,680 lbs TOTAL: 411,00000 lbs

**STAGE 3: 15698, 15638, 15578, 15518, 15458**

6 jspf, .41 dia hole. Pump down @ 15 bpm. Line tension: 1745 psi before, 1630 psi after 434 bbls pmpd.

**PUMP STAGE 3**

Sand in formation 419,850lbs, 98% Prime up & test lines to 9500psi.  
Equalize/open well @ 1156 psi. Ave Rate: 83.9 bpm Ave Pressure: 6493 psi  
Max Rate: 85.0 bpm, Max Pressure: 7811 psi. ISIP:1855 psi.  
Pump Time: 124 mins. Total clean fluid: 9046 bbls. Total slurry volume: 9517 bbls  
Sand Pumped: Sand 100 – 32,000 lbs, Sand 40/70: 377,820 lbs. TOTAL: 409,820 lbs

**STAGE 4: 15398, 15338, 15278, 15218, 15158**

6 JSPF, .41 dia hole. Pump dn @ 15 bpm. Line tension before set 1660 psi & 1555 after. Max press of 1730 psi w/423 bbls pumped.

**PUMP STAGE 4:**

Sand in formation 419,850lbs, 97% Prime up & test lines to 9500psi.  
Equalize/open well @ 1133 psi. Avg Rate: 84.7 bpm, Avg Pressure: 5904 psi.  
Max Rate: 86.0 bpm, Max Pressure: 7178 psi. ISIP:1991 psi.  
Pump Time: 128 mins. Total clean fluid: 8638 bbls, Total slurry volume: 9094 bbls  
Sand pumped: Sand 100: 30,000 lbs, Sand 40/70L 387,350 lbs, TOTAL: 408,000 lbs

**STAGE 5: 15098, 15038, 14978, 14918, 14858**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1698 psi, & 1586 after. Max pressure of 2120 psi w/427 bbls pumped.

**PUMP STAGE 5:**

Sand in formation: 419,850 lbs, 97%, Prime up & test lines to 9500psi.  
Equalize/open well @ 1033 psi. Ave Rate: 84.5 bpm, Avg pressure: 6090 psi

Max Rate: 85.5 bpm, Max Pressure: 7108 psi. ISIP: 2103 psi.  
Pump Time: 132 mins. Total clean fluid: 8911 bbls, Total Slurry volume: 9375 bbls  
Sand pumped: Sand 100: 30,420 lbs, Sand 40/70: 374,820 lbs, TOTAL: 405,240 lbs

**STAGE 6: 14796, 14738, 14682, 14618, 14558**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1600 psi, & 1500 after. Max Pressure of 2420 psi w/381 bbls pumped.

**PUMP STAGE 6:**

Sand in formation: 419,850 lbs, 98%. Prime up & test lines to 9500 psi.  
Equalize/open well @ 1255 psi. Ave Rate: 84.5 bpm, Ave Pressure: 5932 psi.  
Max rate: 85.0 bpm, Max Pressure: 7225 psi. ISIP: 2145 psi.  
Pump time: 132 mins. Total clean fluid: 8521 bbls, Total Slurry volume: 8962 bbls  
Sand pumped: sand 100: 30,180 lbs, sand 40/70: 380,540 lbs. TOTAL: 410,720 lbs

**STAGE 7: 14498, 14438, 14378, 14318, 14258**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1566 psi & 1430 after. Max pressure of 2648 psi w/328 bbls pumped.

**PUMP STAGE 7:**

Sand in formation: 419,850 lbs, 105%, Prime up & test lines to 9500 psi.  
Equalize/open hole @ 1384 psi. Ave rate: 85.1 bpm, Ave Pressure: 5887 psi  
Max rate: 85.0 bpm, Max Pressure: 6591 psi. ISIP: psi.  
Pump time: 123 mins. Total clean fluid: 8724 bbls, Total slurry volume: 9173 bbls.  
Sand Pumped: Sand 100: 31,220 lbs, Sand 40/70: 407,720 lbs, TOTAL: 438,940 lbs

**STAGE 8: 14198, 14138, 14078, 14018, 13958**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1425 psi, & 1350 after. Max pressure of 2385 psi w/324 bbls pumped.

**PUMP STAGE 8:**

Sand in formation: 419,850 lbs, 96%, Prime up & test lines to 9500 psi.  
Equalize/open hole @ 1595 psi. Ave Rate: 85.0 bpm, Ave pressure: 6010 psi  
Max Rate: 86.0 bpm, Max pressure: 7385 psi. ISIP: 2203 psi.  
Pump time: 126 mins. Total clean fluid: 8639 bbls, Total slurry volume: 9105 bbls  
Sand pumped: Sand 100: 32,940 lbs, Sand 40/70: 370,400 lbs. TOTAL 401,340 lbs

**STAGE 9: 13898, 13838, 13774, 13718, 13654**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1624 psi & 1402 after. Max pressure of 2448 psi w/367 bbls pumped.

**PUMP STAGE 9:**

Sand in Formation: 419,850 lbs, 99% Prime up & test lines to 9500 psi.  
Equalize/open well @ 1384 psi. Ave Rate: 85.4 bpm, Ave Pressure: 5998 psi.  
Max rate: 86.5 bpm, Max pressure: 7123 psi. ISIP: 2246 psi.  
Pump time: 125 mins. Total Clean fluid: 8953 bbls, Total slurry volume: 9420 bbls  
Sand pumped: Sand 100: 32,500 lbs, Sand 40/70: 384,480 lbs. TOTAL: 416,980 lbs

**STAGE 10: 13598, 13534, 13478, 13418, 13358**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1490 lbs & 13400 after. Max press of 2601 psi w/295 bbls pumped.

**PUMP STAGE 10:**



Sand in formation: 419,850 lbs, 96% Prime up and test lines to 9500 psi.  
Equalize/open well @ 1398 psi. Ave Rate: 83.0 bpm, Ave Pressure: 6651 psi.  
Max Rate: 87.0 bpm, Max pressure: 7904 psi. ISIP: 2106 psi.  
Pump time: 127 mins. Total clean fluid: 8876 bbls, Total slurry volume: 9333 bbls  
Sand pumped: Sand 100: 30,000 lbs, Sand 40/70: 375,020 lbs. TOTAL 405,020 lbs

**STAGE 11: 13296, 13238, 13174, 13118, 13062**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1450 psi & 1270 after. Max Press 2900 psi w/263 bbls pumped.

**PUMP STAGE 11:**

Sand in formation: 419,850 lbs, 98%, Prime up and test lines to 9500 psi.  
Equalize/open well @ 1148 psi. Ave Rate: 83.7 bpm. Ave Pressure: 6039 psi.  
Max rate: 85.7 bpm, Max pressure: 6848 psi. ISIP: 2121 psi.  
Pump time: 127 mins. Total clean fluid: 9008 bbls, total slurry volume 9478 bbls.  
Sand pumped: Sand 100: 32,580 lbs, Sand 40/70: 379,920 lbs, TOTAL: 412,500 lbs

**STAGE 12: 12998, 12938, 12878, 12818, 12758**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1507 lbs & 1300 after. Max Pressure of 2472 psi w/281 bbls pmped.

**PUMP STAGE 12:**

Sand in formation: 419,850 lbs, 97% Prime up and test lines to 9500 psi.  
Equalize/open well @ 1362 psi. Ave Rate: 85.0 bpm, Ave pressure: 5840 psi  
Max rate: 87.0 bpm, Max pressure: 7006 psi, ISIP: 1960 psi.  
Pump time: 126 mins, Total clean fluid: 8508 bbls, Total slurry volume: 8941 bbls.  
Sand pumped: Sand 100: 30,000 lbs, Sand 40/70: 377,260 lbs, TOTAL: 407,260 lbs.

**STAGE 13: 12698, 12638, 12578, 12518, 12458**

6 JSPF, .41 dia holle. Pump dn @ 12 bpm. Line tension before set 1480 psi & 1310 after. Max pressure of 2150 psi w/253 bbls pumped.

**PUMP STAGE 13:**

Sand in formation: 419,850 lbs, 96%, Prime up & test lines to 9500 psi.  
Equalize/open well @ 1305 psi. Ave Rate: 83.2 bpm, Ave Pressure: 6662 psi.  
Max Rate: 84.7 bpm, Max Pressure: 7358 psi. ISIP: 2217 psi.  
Pump time: 120 mins. Total clean fluid: 8634 bbls, Total slurry volume: 9082 bbls.  
Sand pumped: Sand 100: 31,000 lbs, Sand 40/70: 372,280 lbs TOTAL: 403,280 lbs

**STAGE 14: 12398, 12338, 12278, 12218, 12158**

6 JSPF, .41 dia hole. Pump down @ 15 bpm. Line tension before set 1550 lbs & 1350 after. Max press of 1981 psi w/208 bbls pumped.

**PUMP STAGE 14:**

Sand in formation: 419,850 lbs 97%. Prime up & test lines to 9500 psi.  
Equalize/open hole W 1051 psi. Ave rate: 82.0 bpm, Ave Press: 5359 psi  
Max Rate: 86.0 bpm, Max pressure: 7528 psi. ISIP: 2425 psi.  
Pump time: 148 mins. Total clean fluid: 9623 bbls, Total slurry volume: 10,096 bbls.  
Sand pumped: Sand 100: 32,580 lbs, Sand 40/70: 372,680 lbs, TOTAL 405,260 lbs.

**STAGE 15: 12098, 12038, 11978, 11916, 11858**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1340 psi & 1190 after. Max press 2198 psi @ 182 bbls pumped.

**PUMP STAGE 15:**

Sand in formation: 419850 lbs, 100%. Prime up & test lines to 9500 psi.

Equalize/open well @ 1000 psi. Ave Rate: 81.8 bpm, Ave Pressure: 5282 psi.

Max Rate: 83.1 bpm, Max pressure: 6028 psi, ISIP: 1945 psi.

Pump time 134 mins, Total clean fluid: 8692 bbls, Total slurry volume: 9140 bbls

Sand pumped: Sand 100: 34,000 lbs, Sand 40/70: 385,620 lbs, TOTAL 419,620 lbs

**STAGE 16: 11798, 11738, 11681, 11618, 11558**

6 JSPF, .41 dia hole. Pump dn @ 15 bpm. Line tension before set 1353 lbs & 1170 after. Max press 1898 psi w/169 bbls pumped.

**PUMP STAGE 16:**

Sand in formation: 419,850 lbs, 101%, Prime up & test lines to 9500 psi.

Equalize/open well @ 805 psi. Ave Rate: 85.0 bpm, Ave Press: 5186 psi.

Max rate: 86.0 bpm, Max Pressure: 7128 psi. ISIP: 1710 psi.

Pump time: 124 mins. Total clean fluid: 8400 bbls, Total Slurry volume: 8822 bbls.

Sand pumped: Sand 100: 30,000 lbs, Sand 40/70: 393,280 lbs, TOTAL 423,280 lbs

**STAGE 17: 11498, 11438, 11378, 11318, 11258**

6 JSPF, .41 dia hole. Pump dn @ 15 bpm. Line tension before set 1430 lbs & 1215 after. Max press of 1667 psi w/153 bbls pumped.

**PUMP STAGE 17:**

Sand in formation: 419,850 lbs 101% Prime up & test lines to 9500 psi.

Equalize/open well @ 933 psi. Ave Rate: 85.0 bpm, Avg Pressure: 5419 psi.

Max Rate: 87.0 bpm, Max pressure: 6824 psi. ISIP: 2121 psi.

Pump time 127 mins, Total clean fluid: 8956 bbls, Total slurry volume: 9435 bbls

Sand pump: Sand 100: 31,000 lbs, Sand 40/70: 393,520 lbs, TOTAL: 424,520 lbs

**STAGE 18: 11198, 11138, 11078, 11018, 10958**

6 JSPF, .41 dia hole. Pump dn @ 15 bpm. Line tension before set 1370 lbs & 1180 lbs after. Max press of 1924 psi w/139 bbls pumped.

**PUMP STAGE 18:**

Sand in formation: 419,850 lbs 100% Prime up & test lines to 9500 psi.

Equalize/open well @ 1076 psi. Ave rate: 87.0 bpm, Avg Pressure: 5801 psi

Max rate: 89.0 bpm, Max Pressure: 7138 psi, ISIP: 1985 psi.

Pump time: 116 mins. Total clean fluid: 8376 bbls, Total slurry volume: 8802 bbls.

Sand pumped: Sand 100: 32,640 lbs, Sand 40/70: 388,140 lbs, TOTAL: 420,780 lbs

**STAGE 19: 10898, 10838, 10778, 10718, 10658**

6 JSPF, .41 dia hole. Pump dn @ 15 bpm. Line tension before set 1330 lbs & 1130 after. Max press 1283 psi w/122 bbls pumped.

**PUMP STAGE 19:**

Sand in formation: 419,850 lbs 101%, Prime up & test lines to 9500 psi.

Equalize/open well @ 1151 psi. Ave rate: 85.9 bpm, Ave pressure: 5538 psi.

Max rate: 87.0 bpm, Max pressure: 6480 psi. ISIP: 2371 psi.

Pump time: 128 mins. Total clean fluid: 9386 bbls, Total slurry volume: 9899 bbls.

Sand pumped: Sand 100: 30,680 lbs, Sand 40/70: 383,580 lbs, TOTAL: 424,260 lbs



**STAGE 20: 10598, 10535, 10478, 10421, 10358**

6 JSPF, .41 dia hole. Pump dn @ 15 bpm. Line tension before set 1328 lbs & 1108 lbs after. Max press of 2328 psi w/110 bbls pumped.

**PUMP STAGE 20:**

Sand in formation: 419,850 lbs 101% Prime up and test lines to 9500 psi.

Equalize/open well @ 1269 psi. Ave rate: 83.3 bpm, Ave pressure: 5575 psi.

Max rate: 84.0 bpm, Max pressure: 6212 psi. ISIP: 2140 psi.

Pump time: 130 mins, Total Clean fluid: 9420 bbls, Total slurry volume: 9929 bbls.

Sand pumped: Sand 100: 31,000 lbs, Sand 40/70: 394,040 lbs, TOTAL 425,040 lbs

**STAGE 21: 10299, 10238, 10178, 10118, 10058**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1305 lbs & 1120 after. Max press of 2050 psi w/80 bbls pumped.

**PUMP STAGE 21:**

Sand in formation: 419,850 lbs, 101% Prime up and test lines to 9500 psi.

Equalize/open well @ 1327 psi. Ave rate: 84.8 bpm, Ave Pressure: 5205 psi.

Max rate: 85.4 bpm, Max pressure: 6288 psi. ISIP: 2287 psi.

Pump time: 131 mins. Total clean fluid: 9053 bbls, Total slurry volume: 9561 bbls

Sand pumped: Sand 100: 32,000 lbs, Sand 40/70: 390,700 lbs, TOTAL: 422,700 lbs

**STAGE 22: 9998, 9940, 9878, 9820, 9758**

6 JSPF. Pump dn @ 12 bpm. Line tension before set @ 1300 lbs & 1150 after. Max press of 2267 psi w/63 bbls pumped.

**PUMP STAGE 22:**

Sand in formation: 419,850 lbs 100%, Prime up & test lines to 9500 psi.

Equalize/open well @ 1398 psi. Ave Rate: 83.1 bpm, Ave pressure: 5077 psi.

Max rate: 85.2 bpm, Max pressure: 6329 psi. ISIP: 2192 psi.

Pump time: 127 mins. Total clean fluid: 9168 bbls, Total slurry volum: 9667 bbls

Sand pumped: Sand 100: 30,460 lbs, Sand 40/70: 390,080 lbs, TOTAL: 420,540 lbs

**STAGE 23: 9700, 9638, 9578**

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Line tension before set 1190 lbs & 1030 after. Max press 1909 psi w/44 bbls pumped.

**PUMP STAGE 23:**

Sand in formation: 419,850 lbs 100%, Prime up & test lines to 9500 psi.

Equalize/open well @ 1623 psi. Ave Rate: 86.0 bpm, Ave Pressure: 6126 psi.

Max Rate: 86.6 bpm, Max pressure: 7285 psi. ISIP: 2482 psi.

Pump time: 138 mins. Total clean fluid: 9225 bbls, Total slurry volume: 9733 bbls

Sand Pumped: Sand 100: 34,040 lbs, Sand 40/70: 387,640 lbs, TOTAL: 421,680 lbs.