State of New Mexico Energy, Minerals & Natural Resources OCD

Form C-104 Revised August 1, 2011

District II 811 S. First St., Artesia, NM 88210

District III 1000 Rio Brazos Rd., Aztec, NM 87410

District IV

Oil Conservation Division 07 2016 one copy to appropriate District Office 1220 South St. Francis Dr.

1220 S. St. Francis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505  I. REQUEST FOR ALLOWABLE AND AUT								CEIVED	_			
	I.	REQU	EST FO	R ALL	OWABLE	AND AUT	HO	RIZATION	TO TRANSI	PORT		
<sup>1</sup> Operator n	ame and							<sup>2</sup> OGRID Nun				
CHEVRON U.S.A. INC. 4323												
15 SMITH ROAD												
MIDLAND,	TEXAS	79705						<sup>3</sup> Reason for F	Filing Code/ Effec	tive Date		
-			NEW WELL	EFFECTIVE 08/	2016							
<sup>4</sup> API Number	er	5 Po	ol Name						<sup>6</sup> Pool Code			
30 – 25-43088 JENNINGS; UPPER BONE SPRING SHALE									97838			
<sup>7</sup> Property Code <sup>8</sup> Property Name									<sup>9</sup> Well Number			
316	011		200	SD V	WE 23 FEDERA	AL P7	1	003H				
II. <sup>10</sup> Su	rface Lo	ocation										
Ul or lot no.	Section	Townshi	Range	Lot Idn	Feet from the	North/South	Line	Feet from the	om the East/West line Co			
P	14	26S	32E		215	SOUTI	H	673	EAST	LEA		
11 Bo	ttom Ho	ole Locat	ion									
UL or lot no.	Section	Townshi	Range	Lot Idn	Feet from the	North/South	line	Feet from the	East/West line	County		
P	23	26S	32E		109	SOUTI	Н	958	EAST	LEA		
12 Lse Code		cing Method		onnection	<sup>15</sup> C-129 Pern	nit Number	<sup>16</sup> (	C-129 Effective l	Date 17 C-1:	29 Expiration Date		
FEDERAL	Code I	FLOWING		/2016								
***	10	ENT.										

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> O/G/W
		OIL
	WESTERN PIPELINE	
		GAS
	DBM	

IV. Well Completion Data

<sup>21</sup> Spud Date 04/17/2016	<sup>22</sup> Ready Date 06/29/2016	<sup>23</sup> <b>TD</b> 14,043	24 <b>PBTD</b> 13,980	<sup>25</sup> <b>Perforations</b> 9403 – 13,845	3.845		
<sup>27</sup> Hole Siz	e <sup>28</sup> Casi	ng & Tubing Size	<sup>29</sup> Depth Set		30 Sacks Cement		
ارتالع 171/2"		13 3/8"	822		960 SX		
12 1/4"		9 5/8"	4568		1475 SX		
8 3/4"		5 1/2"	14,027		1730 SX		
		2 7/8" TBG	8508'				

V. Well Test Data

31 Date New Oil 08/01/2016 32 Gas Delivery Date 08/01/2016		<sup>33</sup> Test Date 09/20/2016	<sup>34</sup> Test Length 24 HRS	35 Tbg. Pressure 921	<sup>36</sup> Csg. Pressure 403 <sup>41</sup> Test Method FLOWING			
<sup>37</sup> Choke Size 33/64	Market and the second s		<sup>40</sup> Gas 1934					
been complied with a	at the rules of the Oil Conse and that the information give of my knowledge and belie	en above is true and	OIL	CONSERVATION DIVIS	ION			
Signature:	15 in Park		Approved by:	Lant				
Printed name: DENISE PINKERTO	ON		Title: Petroleum Engineer					
Title: REGULATORY SPI	ECIALIST		Approval Date:	0/2/16	- Sugarer			
E-mail Address: Leakejd@chevron.co	om			7,4-7				
Date: 10/04/201	Phone: 432-687-7375							

Form 3160-4 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

# HOBBS OCE

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

5. Lease Serial No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG 7 2015

										ULI	0 1	ZU	10	N	MNM1187	723	
1a. Type of	Well 🛛	Oil Well	☐ Gas V	Vell		ry [	Other						-	6. If	Indian, All	ottee or	Tribe Name
b. Type of	Completion	☑ N Othe		☐ Wo	rk Ov	er [	Deepen	□ F	Plug	Back	Q Pin	Re	W.D	7. Ur	nit or CA A	greeme	nt Name and No.
2. Name of CHEVR	Operator RON U.S.A.	INC.	E	-Mail: I			: DENISI		ER1	ΓΟN					ase Name D WE 23		II No. RAL P7 003H
3. Address	6301 DEA							h: 432-		. (include 7-7375	area co	de)		9. Al	PI Well No		30-025-43088
4. Location			on clearly an 32E Mer NN		ordan	ce with	Federal re	quireme	nts)	*					ield and Po		Exploratory
At surfa		L 673FE	Sec	23 T26	S R3	2E Mer	NMP							11. S	ec., T., R.,	M., or l	Block and Survey 26S R32E Mer NMP
At total	Sec	reported be 23 T26S FSL 958	elow 109F S R32E Mer FEL	SL 95 NMP	8FEL									12. C	County or P		13. State NM
14. Date Sp 04/17/2	oudded 2016		15. Da 05/	te T.D. /25/201	Reac 16	hed			8	Complete A 🔯 9/2016	ed Ready t	o Pro	od.	17. E	levations (	DF, KB 65 GL	, RT, GL)*
18. Total D	epth:	MD TVD	14043 9017	3	19.	Plug Ba	ck T.D.:	MD TVI			980		20. Dep	th Brid	lge Plug So		MD TVD
21. Type El CBL	lectric & Oth	er Mechai	nical Logs R	un (Sub	mit co	opy of ea	ach)				22. W W Di	as w as D recti	ell cored ST run? onal Sur	l?	No No No No	☐ Yes ☐ Yes ☑ Yes	(Submit analysis) (Submit analysis) (Submit analysis)
23. Casing ar	nd Liner Reco	ord (Repo	ort all strings	set in w	vell)												
Hole Size	Size/G	rade	Wt. (#/ft.)	To (Ml		Botto (MD		e Cemer Depth	nter		f Sks. & of Cemer		Slurry (BB		Cement	Тор*	Amount Pulled
17.500		375 J-55	54.5				822					960				0	
12.250 8.750		HCK-55	40.0 20.0		_		4568 1479 14027 1730		_				0				
8.750	5.500 F	ICP-110	20.0			14	1027				17	30				3148	
						7											
24. Tubing	Record	0						-	$\vdash$								
	Depth Set (N	(ID) P	acker Depth	(MD)	Siz	ze l	Depth Set	(MD)	P	acker Dep	oth (MD		Size	De	pth Set (M	D) 1	Packer Depth (MD)
2.875		8508		8490			26 D. C	dia D		-1					77		
25. Producii			Ton		Do	ttom	26. Perfo	Perfora	_				Size		lo. Holes		Perf. Status
A)	BONE SP	RING	Тор	9403	В	13845	7	renota		9403 TO	13845	$\vdash$	Size	1	o. Holes	PROD	DUCING ***SEE DETAIL
B)														>			
C)																	
D)	raatura Traat	mant Car	ment Squeeze	Eto					_								
	Depth Interva	0.0	nent squeeze	, Etc.					Ar	mount and	Type o	f Ma	aterial		-4		
			845 FRAC V	V/TOTA	L SAN	D (100 l	MESH & 20	0/40) = 6						REPO	RT ATTAC	HED	
			_						_							-	7
28. Product	ion - Interval	Α															
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF	Water BBL		il Gr		Ga	s avity		Producti	on Method		
08/01/2016	09/20/2016	24		1037		1934.0			Jat. 1		J.	ty			FLO	NS FRO	M WELL
Choke Size	Tbg. Press. Flwg. 921	Csg. Press.	24 Hr. Rate	Oil BBL		Gas MCF	Water BBL		as:O	il	W	ell Sta	itus				
33/64	SI	403.0								1865		P	WC				
	tion - Interva	_	Tact	Oil		Gae	Weter	In	il Gr	nuite	I c	ie.		Product	on Mathe d		
Date First Produced	Test Date	Hours Tested	Production	Oil BBL		Gas MCF	Water BBL		orr.		Ga Gr	avity		roducti	on Method		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		Gas MCF	Water BBL		as:O	il	W	ell Sta	atus				

28b. Prod	duction - Interv	al 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 Sta	atus			
28c. Prod	duction - Interv	al 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 Sta	ell Status			
29. Dispo	osition of Gas(S	Sold, used	for fuel, veni	ted, etc.)								
30. Sumi	mary of Porous	Zones (In	clude Aquife	ers):					31. Forr	mation (Log) Markers		
tests,	all important including dept ecoveries.						d all drill-stem d shut-in pressure	es				
	Formation		Тор	Bottom		Descript	ions, Contents, etc	с.		Name	Top Meas. Deptl	
BRUSHY BONE SI UPPER A	NYON CANYON CANYON PRING LIME	(include p	2840 4580 4630 5690 7280 8820 8870	4579 4629 5689 7279 8819 8869 1404:	LII SA SA SA	NHYDRITE MESTONE ANDSTONE ANDSTONE ANDSTONE HALE/LIME	STONE		BEL CHI BRU BOI	STILE MAR  LL CANYON ERRY CANYON USHY CANYON NE SPRING LIME PER AVALON	2840 4580 4630 5690 7280 8820 8870	
	- E											
1. E	e enclosed atta lectrical/Mecha undry Notice fo	inical Logs				Geologi     Core Ar			DST Rep Other:	port 4. Direction	onal Survey	
	eby certify that	the forego	_	ronic Subm	ission #35	3475 Verific	orrect as determined by the BLM V	Vell Informa		records (see attached instructi	ons):	
34. I her						21011	,					
	e (please print)	DENISE	PINKERTO	ON			Title F	PERMITTIN	G SPEC	CIALIST		
Nam	e(please print)		PINKERTO					PERMITTIN 10/04/2016	G SPEC	CIALIST		

#### UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	20	BS	0	CD	
H	JB	DU			

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an Lease Serial No. NMNM118723

OCT 07 201 6. If Indian, Allottee or Tribe Name abandoned well. Use form 3160-3 (APD) for such proposals. . If Unit or CA/Agreement, Name and/or No. SUBMIT IN TRIPLICATE - Other instructions on reverse side. Well Name and No. SD WE 23 FEDERAL P7 003H Type of Well ☑ Oil Well ☐ Gas Well ☐ Other Name of Operator Contact: DENISE PINKERTON 9. API Well No. CHEVRÓN U.S.A. INC. 30-025-43088 E-Mail: leakejd@chevron.com 3b. Phone No. (include area code) Ph: 432-687-7375 10. Field and Pool, or Exploratory Address 6301 DEAUVILLE BLVD **BONE SPRING** MIDLAND, TX 79706 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 11. County or Parish, and State Sec 14 T26S R32E Mer NMP 215FSL 673FEL LEA COUNTY, NM 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION □ Acidize □ Deepen ☐ Production (Start/Resume) ☐ Water Shut-Off ■ Notice of Intent ☐ Alter Casing ☐ Fracture Treat □ Reclamation ■ Well Integrity Subsequent Report □ Casing Repair ■ New Construction ☐ Recomplete Other **Drilling Operations** ☐ Final Abandonment Notice ☐ Change Plans ☐ Plug and Abandon ☐ Temporarily Abandon ☐ Convert to Injection □ Plug Back ■ 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 recomplete 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.) 04/17/2016: SPUD WELL. DRILL SURFACE HOLE FR 112-380, 702, 832. 04/18/2016: RUN 13 3/8",54.5#, J-55,STC CSG SET @ 822'. FC @ 782'. PRESS TEST 30 3000PSI. PUMP 40 BBLS SPACER @ 8.3PPG. MIX & PMP 960 SX CMT @ 14.8PPG. DISPL CMT W/120 BBLS 8.3PPG FW. BUMP PLUG W/529 PSI OVER FINAL CIRC PRESS. FULL RETURNS THROUGHOUT JOB. FINAL CIRC PRESS PRIOR TO BUMPING PLUG 341 PSI @ 2.1BPM. 97 BBLS CMT TO SURF. CMT IN PLACE @ 10:30. 05/16/2016: TEST BOPE TO 250PSI/5000PSI. PRESS TEST SURF CSG TO 1500 PSI FOR 30 MINS. GOOD. DRILL 10' NEW FORMATION TO 842'. DRILL INTERMEDIATE HOLE 842-1056.1982. 2772. 3325. 4047. 4578'. 05/18/2016: RUN 9 5/8",40#,HCK-55 LTC CSG & SET @ 4568'. FC @ 4482. PRESS TEST LINES TO 1000PSI LOW/2500PSI HIGH. PMP 35 BBLS DYED FW SPACER. MIX & PUMP 1025 SX LEAD @ 11.9PPG, & 450 SX TAIL @ 14. I hereby certify that the foregoing is true and correct. Electronic Submission #353459 verified by the BLM Well Information System For CHEVRON U.S.A. INC., sent to the Hobbs Name (Printed/Typed) DENISE PINKERTON Title PERMITTING SPECIALIST Signature (Electronic Submission) 10/04/2016 THIS SPACE FOR FEDERAL OR STATE OFFICE USE Date Approved By Title 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

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.

which would entitle the applicant to conduct operations thereon.

Office

# Additional data for EC transaction #353459 that would not fit on the form

#### 32. Additional remarks, continued

14.8PPG. BUMP PLUG W/510PSI OVER FINAL CIRC PRESS. FULL RETURNS THROUGHOUT JOB. FINAL CIRC PRESS PRIOR TO BUMPING PLUG 1300PSI @ 3.3BPM. 497 SX CMT RETURNED TO SURF.CMT IN PLACE @ 01:15 HRS. WOC. PRESS TEST INTERMEDIATE CSG TO 2800PSI FOR 30 MINS. DRILL 10' NEW FORMATION TO 4588'.

05/19/2016: DRILL 4588-5018, 5897, 6910, 7850, 8510, 8540, 8781, 9027, 9330, 9456, 9662, 10164, 10535, 10978, 11421, 11840, 11895, 12331, 12840, 13637, 14043. (\*\*\*TD REACHED ON 05/25/2016)

05/26/2016: RAN 5 1/2",20#,HCP-110 TXP BTC PRODUCTION CSG SET @ 14,027'. LC @ 13940, RSI TOOL @ 13880, MRKR JT @ 8522. PRESS TEST 500PSI/6500PSI. CMT W/630 SX CL H LEAD 1, 980 SX CL H LEAD 2, & 120 SX CL H TAIL.BUMP PLUG @ 2115PSI. FULL RETURNS THROUGHOUT JOB. CMT IN PLACE @ 16:47.

RELEASE RIG.

Form 3160-5 (August 2007)

### **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Lease Serial No. NMNM118723

Do not use thi abandoned wel	7 2016	6. If Indian, Allottee or Tribe Name						
SUBMIT IN TRI	PLICATE - Other instruct	erse side. C	EIVED	7. If Unit or CA/Agree	ement, Name and/or No.			
Type of Well	er		8. Well Name and No. SD WE 23 FEDERAL P7 003H					
Name of Operator CHEVRON U.S.A. INC.	Contact: [ E-Mail: leakejd@ch	DENISE PIN evron.com	KERTON		9. API Well No. 30-025-43088			
3a. Address 6301 DEAUVILLE BLVD MIDLAND, TX 79706		3b. Phone No Ph: 432-68	(include area cod 7-7375	e)	10. Field and Pool, or BONE SPRING	Exploratory		
4. Location of Well (Footage, Sec., T.	, R., M., or Survey Description)				11. County or Parish,	and State		
Sec 14 T26S R32E Mer NMP	215FSL 673FEL	- 1	1		LEA COUNTY,	NM		
12. CHECK APPR	ROPRIATE BOX(ES) TO	INDICATE	NATURE OF	NOTICE, R	EPORT, OR OTHE	R DATA		
TYPE OF SUBMISSION			TYPE (	OF ACTION				
☐ Notice of Intent	☐ Acidize	☐ Dee	pen	☐ Product	tion (Start/Resume)	☐ Water Shut-Off		
Subsequent Report     ■     Subsequent Report     Subsequent Re	☐ Alter Casing	☐ Frac	ture Treat	□ Reclam	ation	■ Well Integrity		
	☐ Casing Repair	_	Construction	□ Recomp		☑ Other Production Start-up		
☐ Final Abandonment Notice	☐ Change Plans				rarily Abandon	Troduction Start up		
	☐ Convert to Injection	Plug	1.11	□ Water I				
13. Describe Proposed or Completed Ope If the proposal is to deepen directions Attach the Bond under which the wor following completion of the involved testing has been completed. Final Ab- determined that the site is ready for final	ally or recomplete horizontally, g k will be performed or provide to operations. If the operation resupendonment Notices shall be filed	give subsurface he Bond No. or ults in a multipl	locations and mean in file with BLM/B e completion or re	sured and true vol IA. Required su completion in a	ertical depths of all perting bsequent reports shall be new interval, a Form 316	nent markers and zones.  filed within 30 days 0-4 shall be filed once		
COMPLETION REPORT FOR 06/13/2016: MIRU. RUN CBI 06/17/2016: TEST 5 1/2" PRESS-6000PSI, 60 BBLS.	LOG.	PSI FOR 30	MINS. ESTAB	INJECTION	RATE: MAX			
06/18/2016 THROUGH 06/29/ FRAC W/TOTAL SAND (100 I ***DETAILED REPORT FOR	MESH & 20/40) = 6,310,76	64 LBS	845'					
07/04/2016: PRESS TEST W	IRELINE LUBRICATOR T	O 5000PSI.	GOOD.					
SET PKR @ 8490. 07/12/2016: TEST BOP BLIN	D RAMS & PIPE RAMS T	O 250L/4500	OH. GOOD. TE	EST ANNULA	R 250L/3000H. GO	OD.		
14. I hereby certify that the foregoing is	Electronic Submission #3	53466 verifie RON U.S.A. I	d by the BLM W NC., sent to the	ell Information	n System			
Name (Printed/Typed) DENISE P	PINKERTON		Title PERM	IITTING SPE	CIALIST			
Signature (Electronic S	Submission)		Date 10/04/	2016				
	THIS SPACE FO	R FEDERA			SE			
Approved By			Title			Date		
Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent would entitle the applicant to conductive the applicant to conductive the applicant to conductive the applicant to conduct	iitable title to those rights in the		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.

# Additional data for EC transaction #353466 that would not fit on the form

# 32. Additional remarks, continued

07/13/2016: SET 2 7/8" TBG @ 8508'. PKR @ 8490 07/14/2016: RIG DOWN.

09/20/2016: ON 24 HR OPT. FLOWING 1037 OIL, 1934 GAS, 1048 WATER. GOR - 1865. TBG-921PSI, CSG-403PSI ON 33/64" CHOKE. TOC @ 3148'.

# HOBBS OCD

## SD WE 23 P7 #003H

OCT 07 2016

# RECEIVED

### **PERF & FRAC INFORMATION**

STAGE 1: 13843, 13783, 13723, 13663, 13603

6 spf, .41 dia hole. Total bbls pumped: 983 bbls. Max pressure: 7742 psi

**PUMP STAGE 1:** 

Sand in formation 419,808 lbs 100% Prime up & test lines to 9500psi. Equalize/open well @ 1352 psi. Avg Rate 85.7 bpm. Avg press:5935 psi.

Max Rate: 86.2 bpm Max Press:8554 psi. ISIP:1986 psi

Pump Time 127 mins Total clean fluid 9294 bbls Total slurry volume 9752 bbls

Sand pumped: Sand 100 – 32,633 lbs Sand 40/70 – 388,364 lbs TOTAL:420,997 lbs

STAGE 2: 13483, 13423, 13363, 13300

6 jspf, .41 dia hole. Total bbls pmpd: 363 bbls, max pressure 2748 psi

**PUMP STAGE 2:** 

Sand in formation 419,808 lbs: 100% Test lines to 9500 psi.

Equalize/open well @ 1554 psi. Avg Rate: 96.0 bpm Avg Pressure 5654 psi

Max rate: 86.0 bpm Max Pressure 8229 psi ISIP 2314 psi

Pump Time: 122 mins. Total clean fluid:8916 bbls Total Slurry volume:9372 bbls

Sand pumped: Sand 100 - 32,516 lbs, Sand 40/70: 386,625 lbs TOTAL: 419,141 lbs

STAGE 3: 13243, 13183, 13123, 13063, 13003

6 jspf, .41 dia hole. Total bbls pmpd: 222 bbls. Max pressure: 2445 psi

**PUMP STAGE 3** 

Sand in formation 419,808 lbs, 100% Prime up & test lines to 9500psi.

Equalize/open well @ 1585 psi. Ave Rate: 92.0 bpm Ave Pressure: 6001 psi

Max Rate:92.0 bpm, Max Pressure: 8122 psi. ISIP: 2108 psi.

Pump Time: 114 mins. Total clean fluid: 9083 bbls. Total slurry volume:9539 bbls Sand Pumped: Sand 100 –33,152 lbs, Sand 40/70: 390,210 lbs. TOTAL: 423,362 lbs

STAGE 4: 12943, 12883, 12823, 12766, 12703

6 JSPF, .41 dia hole. . Max press of 1472 psi w/292 bbls pumped.

**PUMP STAGE 4:** 

Sand in formation 419,808 lbs, 100% Prime up & test lines to 9500 psi.

Equalize/open well @ 1566 psi. Avg Rate: 91.1 bpm, Avg Pressure: 5450 psi.

Max Rate: 91.5 bpm, Max Pressure: 8220 psi. ISIP:2287 psi.

Pump Time: 117 mins. Total clean fluid: 9073 bbls, Total slurry volume: 9526 bbls Sand pumped: Sand 100: 32,866 lbs, Sand 40/70L 387,412 lbs, TOTAL: 420,278 lbs

STAGE 5: 12643, 12583, 12523, 12463, 12403

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. . Max pressure of 2285psi w/225 bbls pumped.

**PUMP STAGE 5:** 

Sand in formation: 419,808 lbs, 100%, Prime up & test lines to 9500psi.

Equalize/open well @1661 psi. Ave Rate: 90.5 bpm, Avg pressure:6462 psi

Max Rate:91.0 bpm, Max Pressure: 8230 psi. ISIP: 2449 psi.

Pump Time: 115 mins. Total clean fluid:8904 bbls, Total Slurry volume:9357 bbls Sand pumped: Sand 100:32,329 lbs, Sand 40/70:388,524 lbs, TOTAL: 420,853 lbs

# STAGE 6: 12343, 12283, 12223, 12163, 12103

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Max Pressure of 3316 psi w/267 bbls pumped. **PUMP STAGE 6:** 

Sand in formation: 419,808 lbs, 100%. Prime up & test lines to 9500 psi. Equalize/open well @ 1610 psi. Ave Rate:89.7 bpm, Ave Pressure: 5942 psi. Max rate:90.0 bpm, Max Pressure:8836 psi. ISIP:2069 psi. Pump time:116 mins. Total clean fluid: 9056 bbls, Total Slurry volume:9509 bbls Sand pumped: sand 100: 32,683 lbs, sand 40/70:388,156 lbs. TOTAL:420,839 lbs

# STAGE 7: 12043, 11983, 11920, 11863, 11803

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. . Max pressure of 2462 psi w/162 bbls pumped. **PUMP STAGE 7:** 

Sand in formation: 419,808 lbs101 %, Prime up & test lines to 9500 psi. Equalize/open hole @1639 psi. Ave rate:86.0 bpm, Ave Pressure:5283 psi Max rate: 86.0 bpm, Max Pressure:8402 psi. ISIP: 2110 psi. Pump time:125 mins. Total clean fluid:8913 bbls, Total slurry volume:9368 bbls. Sand Pumped: Sand 100:32,598 lbs, Sand 40/70: 389,640 lbs, TOTAL:422,238 lbs

# STAGE 8: 11743, 11680, 11623, 11563, 11503

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Max pressure of 2556 psi w/169 bbls pumped. **PUMP STAGE 8:** 

Sand in formation: 419,808 lbs, 100%, Prime up & test lines to 9500 psi. Equalize/open hole @ 1610 psi. Ave Rate: 85.0 bpm, Ave pressure: 5863 psi Max Rate: 86.0 bpm, Max pressure: 8423 psi. ISIP: 2163 psi. Pump time: 121 mins. Total clean fluid: 8927 bbls, Total slurry volume: 9380 bbls Sand pumped: Sand 100: 32,524 lbs, Sand 40/70: 388,643 lbs. TOTAL 421,167 lbs

#### STAGE 9: 11443, 11383, 11323, 11263, 11203

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Max pressure of 2058 psi w/336 bbls pumped. **PUMP STAGE 9:** 

Sand in Formation: 419,808 lbs, 100% Prime up & test lines to 9500 psi. Equalize/open well @ 1673 psi. Ave Rate: 89.9 bpm, Ave Pressure: 5507 psi. Max rate: 90.2 bpm, Max pressure: 8451 psi. ISIP: 2017 psi. Pump time: 117 mins. Total Clean fluid: 9013 bbls, Total slurry volume: 9465 bbls Sand pumped: Sand 100: 33,346 lbs, Sand 40/70: 387,156 lbs. TOTAL: 420,502 lbs

# STAGE 10: 11143, 11083, 11023, 10963, 10903

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Max press of 2213 psi w/128 bbls pumped. **PUMP STAGE 10:** 

Sand in formation: 419,808 lbs, 100% Prime up and test lines to 9500 psi. Equalize/open well @ 1643 psi. Ave Rate: 90.0 bpm, Ave Pressure: 5418 psi. Max Rate: 90.0 bpm, Max pressure: 8330 psi. ISIP: 2197 psi.

Pump time: 113 mins. Total clean fluid: 8867 bbls, Total slurry volume: 9321 bbls Sand pumped: Sand 100: 32,490 lbs, Sand 40/70: 388,814 lbs. TOTAL 421,304 lbs

# STAGE 11: 10843, 10778, 10723, 10663, 10603

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Max Press 2230 psi w/112 bbls pumped.

### **PUMP STAGE 11:**

Sand in formation: 419,808 lbs, 100%, Prime up and test lines to 9500 psi.

Equalize/open well @ 1609 psi. Ave Rate: 90.0 bpm. Ave Pressure: 6506 psi.

Max rate: 90.0 bpm, Max pressure: 8447 psi. ISIP: 2335 psi.

Pump time: 116 mins. Total clean fluid: 8846 bbls, total slurry volume 9299 bbls. Sand pumped: Sand 100: 32,476 lbs, Sand 40/70: 388,129 lbs, TOTAL: 420,605 lbs

# STAGE 12: 10543, 10483, 10423, 10363, 10303

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Max Pressure of 2665 psi w/115 bbls pmped. **PUMP STAGE 12:** 

Sand in formation: 419,808 lbs, 99% Prime up and test lines to 9500 psi.

Equalize/open well @ 1663 psi. Ave Rate: 89.1 bpm, Ave pressure: 6146 psi

Max rate: 90.0 bpm, Max pressure: 8327 psi, ISIP: 2056 psi.

Pump time: 116 mins, Total clean fluid: 9008 bbls, Total slurry volume: 9457 bbls. Sand pumped: Sand 100: 32,953 lbs, Sand 40/70: 384,036 lbs, TOTAL: 416,989 lbs.

# STAGE 13: 10241, 10183, 10123, 10063, 10003

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Max pressure of 3902 psi w/82 bbls pumped. **PUMP STAGE 13:** 

Sand in formation: 419,808 lbs, 99%, Prime up & test lines to 9500 psi.

Equalize/open well @ 1700 psi. Ave Rate: 85.0 bpm, Ave Pressure: 5428 psi.

Max Rate: 85.0 bpm, Max Pressure: 9113 psi. ISIP: 2370 psi.

Pump time: 128 mins. Total clean fluid: 9145 bbls, Total slurry volume: 9600 bbls. Sand pumped: Sand 100: 32,479 lbs, Sand 40/70: 390,398 lbs TOTAL: 422,877 lbs

# STAGE 14: 9943, 9883, 9823, 9763, 9703

6 JSPF, .41 dia hole. Pump down @ 15 bpm. Max press of 2585 psi w/82 bbls pumped.

#### **PUMP STAGE 14:**

Sand in formation: 419,808lbs 100%. Prime up & test lines to 9500 psi.

Equalize/open hole W 1874 psi. Ave rate: 88.4 bpm, Ave Press: 5799 psi

Max Rate: 88.9bpm, Max pressure: 8771 psi. ISIP: 2240 psi.

Pump time: 118 mins. Total clean fluid: 9016 bbls, Total slurry volume: 9467 bbls. Sand pumped: Sand 100: 32,071 lbs, Sand 40/70: 387,263 lbs, TOTAL 419,334 lbs.

# STAGE 15: 9643, 9583, 9522, 9463, 9403

6 JSPF, .41 dia hole. Pump dn @ 12 bpm. Max press 2508 psi @ 61 bbls pumped.

#### **PUMP STAGE 15:**

Sand in formation: 419808 lbs, 100%. Prime up & test lines to 9500 psi.

Equalize/open well @ 1678 psi. Ave Rate: 85.0 bpm, Ave Pressure: 4317 psi.

Max Rate: 85.0 bpm, Max pressure: 8186 psi, ISIP:2175 psi.

Pump time 121 mins, Total clean fluid: 8779 bbls, Total slurry volume: 9231 bbls Sand pumped: Sand 100: 32,528 lbs, Sand 40/70: 387,650 lbs, TOTAL 420,178 lbs