

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNMOC
HobbsFORM 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 abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**5. Lease Serial No.
NMNM118722

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
SD WE 14 FED P7 4H9. API Well No.
30-025-43087-00-X110. Field and Pool, or Exploratory
JENNINGS11. County or Parish, and State
LEA COUNTY, NM

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
CHEVRON USA INCContact: DENISE PINKERTON
E-Mail: leakejd@chevron.com3a. Address
1616 W. BENDER BLVD
HOBBS, NM 882403b. Phone No. (include area code)
Ph: 432-687-73754. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 14 T26S R32E SESE 215FSL 648FEL**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION

TYPE OF ACTION

☐ Notice of Intent☒ Subsequent Report☐ Final Abandonment Notice☐ Acidize☐ Alter Casing☐ Casing Repair☐ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☒ Other
Drilling Operations

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 recompleat 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 recompleat 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.)

04/18/2016: SPUD WELL @ 18:30 HRS. DRILL SURFACE HOLE FR 112-348, 840.

04/19/2016: RUN 13 3/8", 54.5# J-55, STC CSG SET @ 830' FC @ 785'.
PRESS LINES TO 3500PSI. PUMP 40 BBLS SPACER @ 8.3PPG. MIX & PUMP 960 SX CL C CMT @ 14.8PPG. BUMP
PLUG W/534PSI OVER FINAL CIRC PRESS. FULL RETURNS THROUGHOUT JOB. FINAL CIRC PRESS PRIOR TO BUMPING
PLUG 350PSI @ 2.1BPM. 110 BBLS CMT TO SURF. CMT IN PLACE @ 13:15.
05/03/2016: TEST BOPE TO 250L/5000H. TEST ANNULAR TO 250L/3500H. TAG CMT @ 770'. PRESS TEST 13
3/8" SURF CSG TO 1500PSI FOR 30 MINS. DRILL 10' NEW FORMATION.

05/04/2016: DRILL 850-1125, 1450, 1805, 2250, 2359, 2925, 3492, 3507, 3880, 4210, 4567.

05/06/2016: RUN 9 5/8", 40# HCK-55, LTC INTERMEDIATE CSG & SET @ 4557' FC @ 4469'. PRESS LINES TO

see ATTACHED

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #353227 verified by the BLM Well Information System
For CHEVRON USA INC, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 09/30/2016 (16PP1240SE)

Name (Printed/Typed) DENISE PINKERTON

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 09/30/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

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
which would entitle the applicant to conduct operations thereon.

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #353227 that would not fit on the form

32. Additional remarks, continued

500L/4500H. PUMP 30 BBLS DYED FW SPACER.

MIX & PUMP 1055 SX LEAD @ 11.9PPG, 462 SX TAIL @ 14.8PPG. BUMP PLUG W/500PSI OVER FINAL CIRC PRESS @ 1700PSI. FULL RETURNS THROUGHOUT JOB. FINAL CIRC PRESSURE PRIOR TO BUMPING PLUG 1190 PSI @ 3.9BPM. 190 BBLS/439 SX OF CMT RETURNED TO SURFACE. CMT IN PLACE @ 00:15 HRS 05/07/2016. TAG CMT @ 4455. PRESS TEST 9 5/8" INTERMEDIATE CSG TO 2800PSI FOR 30 MINS.

05/07/2016: DRILL 10', NEW FORMATION. DRILL 4577-4744, 4922, 6000, 7077, 7493, 7759, 8026, 8380, 8567, 8580, 8715, 8919, 9295, 9362, 9445, 9626, 9739, 10451, 10540, 11070, 11310, 11987, 12051, 12622, 13775, 13816. (***TD REACHED ON 05/13/2016).

05/15/2016: RUN 5 1/2", 20#, HCP-110 TXP BTC PRODUCTION CSG & SET @ 13,800'. FC @ 13705, RSI TOOL @ 13645, MRKR JT @ 8536.

PRESS TEST 500L/6500H. CMT W/624 SX CL H LEAD @ 6.5PBM, 11.5PPG, 905 SX CL H LEAD @ 6.6BPM @ 12.5PPG & 120 SX CL H TAIL @ 5.5BPM @ 15PPG. FINAL CIRC PRESS 1964PSI @ 3.4BPM. BUMP PLUG 536 PSI OVER FCP @ 2500PSI. TOC @ 3270'. RETURNS SEEN DURING JOB. CMT IN PLACE @ 14:00 HRS. TEST TO 5000PSI FOR 15 MINS. GOOD. RIG DOWN. RELEASE RIG.

Phoenix Technology Services
SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 60048 OPERATOR Chevron

WELL NAME SD WE 14 FED P7 4H COUNTY & STATE Lea County, NM

API WELL NUMBER 30-025-43087 PROPOSED DIRECTION 333

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
815.00 ft	814.89 ft	1.8°	260.0°	S.02 S	8.68 W	Teledrift

FIRST SURVEY	FIRST SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
4-May-16	949 ft	1.8°	271.3°

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST SURVEY	LAST SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
9-May-16	8,510 ft	1.0°	214.1°

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY	PROJECTED TD SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
9-May-16	8,567 ft	1.0°	214.1°

Benjamin J. Maulding

PRINT YOUR NAME ABOVE

Benjamin Maulding

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID	
TOTAL CORRECTION USED	6.60
DECLINATION OR GRID	GRID

Monday, May 09, 2016

TODAY'S DATE

MWD SUPERVISOR 1 Robert Brewer DIRECTIONAL DRILLER 1 Casey Tubbe

MWD SUPERVISOR 2 Benjamin Maulding DIRECTIONAL DRILLER 2 Monte Gordon

12329 Cotten Rd., Houston, Texas 77066 (713)337-0600 (Voice), (713)337-0599 (Fax)



Chevron

Lea County, NM (NAD27 NME)

SD WE 14 Fed

P7 4H

OH / Job 60048

Survey: Phoenix MWD Surveys

Standard Survey Report

09 May, 2016





Phoenix Technology Services
Survey Report



Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD WE 14 Fed
Well: P7 4H
Wellbore: OH / Job 60048
Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well P7 4H
TVD Reference: RKB @ 3198.00usft (Pace X30)
MD Reference: RKB @ 3198.00usft (Pace X30)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

Project	Lea County, NM (NAD27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	SD WE 14 Fed			
Site Position:		Northing:	377,311.00 usft	Latitude: 32° 2' 7.83756 N
From:	Map	Easting:	711,217.00 usft	Longitude: 103° 38' 6.19467 W
Position Uncertainty:	0.00 usft	Spot Radius:	13-3.16 "	Grid Convergence: 0.38 "

Well	P7 4H			
Well Position	+N-S	0.00 usft	Northing:	377,548.00 usft
	+E-W	0.00 usft	Easting:	715,273.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level: 3,165.00 usft

Wellbore	OH / Job 60048			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)
	HDGM	4/18/2016	6.97	58.75
				Field Strength (nT) 48,038

Design	Surveys (Pace X30)			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	3.33

Survey Program	Date: 5/9/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
165.00	815.00	Teledrift MWD Surveys (OH / Job 60048)	MWD	MWD - Standard
949.00	8,567.00	Phoenix MWD Surveys (OH / Job 60048)	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM

Survey	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	815.00	1.80	280.00	814.88	-5.02	-8.68	-5.51	0.00	0.00	0.00
Tie-In to Teledrift Surveys	949.00	1.80	271.30	948.61	-5.34	-12.86	-6.07	0.26	0.00	8.43
First Phoenix MWD Survey	1,128.00	1.80	175.40	1,125.77	-7.74	-15.44	-8.62	1.43	-0.11	-54.18
	1,303.00	1.80	127.40	1,302.70	-11.89	-13.04	-12.63	0.79	0.11	-27.12
	1,481.00	3.20	76.80	1,480.54	-12.45	-5.98	-12.78	1.40	0.79	-28.43
	1,658.00	3.80	77.00	1,657.23	-10.07	4.25	-9.81	0.23	0.23	0.11
	1,835.00	6.50	68.40	1,833.53	-5.13	18.98	-4.02	1.89	1.64	-4.86



Phoenix Technology Services
Survey Report



Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD WE 14 Fed
Well: P7 4H
Wellbore: OH / Job 60048
Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well P7 4H
TVD Reference: RKB @ 3198.00usft (Pace X30)
MD Reference: RKB @ 3198.00usft (Pace X30)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,014.00	8.30	78.20	2,011.42	0.60	38.02	2.81	0.62	-0.11	5.47
2,192.00	8.60	81.00	2,188.29	4.20	57.68	7.55	0.24	0.17	1.57
2,370.00	8.80	87.60	2,365.08	6.24	78.31	10.76	0.45	0.11	3.71
2,547.00	5.50	92.20	2,541.05	6.36	97.26	12.00	0.78	-0.73	2.60
2,724.00	5.40	93.30	2,717.25	5.55	114.05	12.17	0.08	-0.06	0.62
2,901.00	5.40	91.20	2,893.47	4.90	130.69	12.48	0.11	0.00	-1.19
3,079.00	5.50	91.00	3,070.68	4.57	147.59	13.14	0.06	0.08	-0.11
3,257.00	5.90	88.20	3,247.78	4.71	165.27	14.31	0.27	0.22	-1.57
3,434.00	6.60	87.10	3,423.73	5.51	184.52	16.23	0.40	0.40	-0.82
3,611.00	5.50	88.00	3,599.74	6.32	203.15	18.12	0.62	-0.62	0.51
3,790.00	5.40	86.50	3,777.93	6.70	220.15	19.48	0.10	-0.06	0.84
3,967.00	5.80	90.40	3,954.09	6.71	237.42	20.49	0.23	0.23	0.51
4,144.00	6.10	89.30	4,130.13	6.76	255.77	21.61	0.18	0.17	-0.62
4,322.00	6.80	95.70	4,307.01	5.83	275.71	21.84	0.56	0.39	3.60
4,499.00	6.90	95.40	4,482.75	3.79	296.72	21.02	0.06	0.06	-0.17
4,506.00	6.90	96.10	4,482.67	3.57	297.52	20.97	0.84	0.00	7.00
4,598.00	6.70	96.60	4,561.05	2.50	308.38	20.42	0.23	-0.22	0.56
4,776.00	4.20	100.10	4,758.23	0.18	325.13	19.06	1.42	-1.40	1.97
4,953.00	1.20	100.50	4,935.01	-1.31	333.33	18.06	1.69	-1.69	0.23
5,131.00	1.10	104.30	5,113.00	-0.69	333.75	18.71	1.26	-0.06	-67.75
5,308.00	1.20	104.20	5,286.96	0.72	330.55	19.93	0.23	0.06	-11.36
5,485.00	1.50	104.30	5,466.91	1.75	326.51	20.72	0.17	0.17	0.06
5,662.00	1.60	102.00	5,643.85	2.84	321.85	21.54	0.07	0.06	-1.30
5,839.00	1.10	106.60	5,820.80	4.36	318.07	22.84	0.43	-0.28	13.90
6,016.00	0.90	109.00	5,997.78	5.88	315.41	24.20	0.19	-0.11	-8.81
6,194.00	0.90	108.80	6,175.75	7.25	313.01	25.43	0.16	0.00	10.00
6,371.00	0.90	110.40	6,352.73	9.02	310.87	27.08	0.01	0.00	0.90
6,549.00	1.00	105.40	6,530.71	10.34	306.31	28.24	0.24	0.06	-14.04
6,726.00	0.80	105.30	6,707.69	10.68	305.90	28.44	0.27	-0.23	-11.38
6,904.00	1.00	103.50	6,885.67	10.16	303.48	27.78	0.24	0.22	-8.63
7,082.00	1.00	104.90	7,063.65	9.03	300.59	26.46	0.09	0.00	-5.39
7,259.00	1.00	107.20	7,240.62	8.01	297.70	25.30	0.13	0.00	7.51
7,436.00	0.80	109.60	7,417.60	7.20	295.39	24.36	0.26	-0.23	-9.94
7,614.00	0.30	103.40	7,595.60	6.30	294.41	23.40	0.22	-0.17	-20.34
7,791.00	0.30	110.40	7,772.56	5.48	293.99	22.55	0.02	0.00	3.95
7,969.00	0.50	112.40	7,950.56	4.42	293.33	21.46	0.11	0.11	1.12
8,146.00	0.80	110.00	8,127.58	2.70	292.30	19.68	0.17	0.17	-1.36
8,323.00	1.20	111.50	8,304.55	0.05	290.72	16.94	0.23	0.23	0.85
8,500.00	1.20	111.80	8,481.51	-3.11	288.77	13.68	0.00	0.00	0.17
8,510.00	1.00	114.10	8,491.51	-3.27	288.67	13.51	2.05	-2.00	23.00
Final Phoenix MWD Survey									
8,567.00	1.00	114.10	8,548.50	-4.09	288.11	12.99	0.00	0.00	0.00
Projection to TD									



Phoenix Technology Services
Survey Report



Company: Chevron
Project: Lea County, NM (NAD27 NME)
Site: SD WE 14 Fed
Well: P7 4H
Wellbore: OH / Job 60048
Design: Surveys (Pace X30)

Local Co-ordinate Reference: Well P7 4H
TVD Reference: RKB @ 3198.00usft (Pace X30)
MD Reference: RKB @ 3198.00usft (Pace X30)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass 5000 GCR

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
815.00	814.88	-5.02	-8.88	Tie-in to Teledrift Surveys
849.00	848.81	-5.34	-12.86	First Phoenix MWD Survey
8510.00	8491.51	-3.27	288.67	Final Phoenix MWD Survey
8567.00	8548.50	-4.08	288.11	Projection to TD

Checked By: _____ Approved By: _____ Date: _____



Directional Survey

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,165.00	Original RWH (ft) 3,197.60	Current RWH Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Wellbore Name Original Hole	Parent Wellbore Original Hole	Min Kick Off Depth (ft) 5,567.0	Vertical Section Direction (°) 359.66
Northing (N) (ft)	Easting (E) (ft)	JTM Grid Zone	

Date 4/19/2016	Definitive? Y	Description MWD	Planned? N
MO Tie In (ft)	TVD (ft) in (ft)	Incision Tie In (°)	Altitude Tie In (°)
		NS Tie In (ft)	EW Tie In (ft)

Survey Data														
MO (ft)	Inc (°)	Age (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Built (°/100ft)	Depart (ft)	Turn (°/100ft)	Uncons d data	
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Magn MWD	Phoenix Directional	0.00	0.00	0.00	N	
165	0.30	263.00	165.00	-0.05	-0.43	-0.05	0.18	Magn MWD	Phoenix Directional	0.18	0.43	159.36	N	
255	0.10	28.00	255.00	-0.01	-0.63	-0.01	0.41	Magn MWD	Phoenix Directional	-0.22	0.83	251.11	N	
343	0.50	243.00	343.00	-0.12	-0.93	-0.11	0.65	Magn MWD	Phoenix Directional	0.45	0.84	244.32	N	
436	0.60	249.00	435.99	-0.42	-1.75	-0.47	0.12	Magn MWD	Phoenix Directional	0.11	1.61	6.45	N	
532	1.00	223.00	531.98	-1.27	-2.79	-1.25	0.53	Magn MWD	Phoenix Directional	0.42	3.06	-27.06	N	
625	1.40	239.00	624.96	-2.45	-4.32	-2.42	0.56	Magn MWD	Phoenix Directional	0.43	4.96	17.20	N	
717	1.80	247.00	716.93	-3.59	-6.61	-3.55	0.50	Magn MWD	Phoenix Directional	0.43	7.52	6.70	N	
815	1.80	260.00	814.88	-4.46	-9.54	-4.40	0.42	Magn MWD	Phoenix Directional	0.00	10.53	13.27	N	
949	1.80	271.30	948.81	-4.76	-13.72	-4.70	0.26	Magn MWD	Phoenix Directional	0.00	14.53	8.43	N	
1,126	1.60	175.40	1,125.76	-7.16	-16.30	-7.06	1.43	Magn MWD	Phoenix Directional	-0.11	17.81	-54.18	N	
1,303	1.60	127.40	1,302.70	-11.33	-13.86	-11.25	0.79	Magn MWD	Phoenix Directional	0.11	17.93	-27.12	N	
1,481	3.20	76.80	1,480.54	-11.69	-5.83	-11.65	1.40	Magn MWD	Phoenix Directional	0.79	13.72	-28.43	N	
1,658	3.60	77.00	1,657.23	-6.52	3.39	-9.54	0.23	Magn MWD	Phoenix Directional	0.23	10.10	0.11	N	
1,835	5.50	66.40	1,833.53	-4.56	16.12	-4.56	1.69	Magn MWD	Phoenix Directional	1.64	16.69	-4.88	N	
2,014	6.30	78.20	2,011.41	1.18	37.16	0.94	0.62	Magn MWD	Phoenix Directional	-0.11	37.18	5.47	N	
2,192	6.60	61.00	2,188.29	4.76	56.82	4.42	0.24	Magn MWD	Phoenix Directional	0.17	57.02	1.57	N	
2,370	6.80	67.60	2,365.06	6.80	77.45	6.34	0.45	Magn MWD	Phoenix Directional	0.11	77.75	3.71	N	
2,547	5.50	62.20	2,541.05	6.91	96.40	6.34	0.78	Magn MWD	Phoenix Directional	-0.73	96.65	2.80	N	
2,724	5.40	63.30	2,717.25	6.11	113.19	5.44	0.06	Magn MWD	Phoenix Directional	-0.06	113.35	0.82	N	
2,901	5.40	61.20	2,893.47	5.45	129.63	4.68	0.11	Magn MWD	Phoenix Directional	0.00	129.95	-1.19	N	
3,079	5.50	61.00	3,070.66	5.13	146.74	4.26	0.06	Magn MWD	Phoenix Directional	0.06	146.82	-0.11	N	
3,257	5.90	66.20	3,247.78	5.27	164.41	4.29	0.27	Magn MWD	Phoenix Directional	0.22	164.49	-1.57	N	
3,434	6.60	67.10	3,423.73	6.07	183.66	4.98	0.40	Magn MWD	Phoenix Directional	0.40	183.76	-0.62	N	
3,611	5.50	66.00	3,599.74	6.58	202.30	5.68	0.62	Magn MWD	Phoenix Directional	-0.62	202.41	0.51	N	
3,790	5.40	69.50	3,777.83	7.25	219.25	5.95	0.10	Magn MWD	Phoenix Directional	-0.06	219.41	0.84	N	
3,967	5.80	60.40	3,954.09	7.26	236.55	5.86	0.23	Magn MWD	Phoenix Directional	0.23	236.68	0.51	N	



Directional Survey

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,195.00	Original RKB (ft) 3,197.80	Current RKB Elevation 3,197.80, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Survey Data

MD (RKB)	Incl (°)	Asht (°)	TVD (RKB)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Built (°/100ft)	Depth (ft)	Turn (°/100ft)	Unass d data
4,144	8.10	89.30	4,130.13	7.32	254.91	5.80	0.18	Magn MWD	Phoenix Directional	0.17	255.02	-0.62	N
4,322	8.80	95.70	4,307.01	8.38	274.85	4.75	0.56	Magn MWD	Phoenix Directional	0.39	274.93	3.60	N
4,499	8.90	95.40	4,482.75	4.34	295.87	2.59	0.08	Magn MWD	Phoenix Directional	0.08	295.90	-0.17	N
4,509	8.90	96.10	4,492.87	4.22	297.06	2.46	0.84	Magn MWD	Phoenix Directional	0.00	297.09	7.00	N
4,598	8.70	96.60	4,581.05	3.06	307.83	1.23	0.23	Magn MWD	Phoenix Directional	-0.22	307.56	0.66	N
4,776	4.20	100.10	4,758.23	0.72	324.27	-1.20	1.42	Magn MWD	Phoenix Directional	-1.40	324.27	1.97	N
4,953	1.20	100.90	4,935.01	-0.75	332.47	-2.73	1.69	Magn MWD	Phoenix Directional	-1.69	332.48	0.23	N
5,131	1.10	304.30	5,113.00	-0.13	332.80	2.11	1.28	Magn MWD	Phoenix Directional	-0.08	332.80	114.49	N
5,308	1.20	284.20	5,289.98	1.28	329.70	-0.67	0.23	Magn MWD	Phoenix Directional	0.08	329.70	-11.36	N
5,485	1.50	284.30	5,468.81	2.31	325.85	0.38	0.17	Magn MWD	Phoenix Directional	0.17	325.88	0.06	N
5,662	1.80	282.00	5,643.85	3.39	320.99	1.49	0.07	Magn MWD	Phoenix Directional	0.08	321.01	-1.30	N
5,839	1.10	308.80	5,820.80	4.92	317.21	3.04	0.43	Magn MWD	Phoenix Directional	-0.28	317.25	13.90	N
6,016	0.90	281.00	5,997.77	6.43	314.55	4.57	0.19	Magn MWD	Phoenix Directional	-0.11	314.61	-8.81	N
6,194	0.90	308.80	6,175.76	7.81	312.15	5.96	0.16	Magn MWD	Phoenix Directional	0.00	312.25	10.00	N
6,371	0.90	310.40	6,352.73	9.68	310.01	7.74	0.01	Magn MWD	Phoenix Directional	0.00	310.16	0.90	N
6,548	1.00	285.40	6,530.71	10.90	307.45	9.08	0.24	Magn MWD	Phoenix Directional	0.06	307.64	-14.04	N
6,726	0.60	285.30	6,707.89	11.23	308.04	9.42	0.27	Magn MWD	Phoenix Directional	-0.23	308.24	-11.36	N
6,904	1.00	253.50	6,885.67	10.72	302.62	8.92	0.24	Magn MWD	Phoenix Directional	0.22	302.81	-6.63	N
7,082	1.00	243.90	7,063.65	9.59	299.74	7.81	0.09	Magn MWD	Phoenix Directional	0.00	299.89	-5.99	N
7,259	1.00	257.20	7,240.62	8.57	296.84	6.81	0.13	Magn MWD	Phoenix Directional	0.00	296.97	7.61	N
7,436	0.80	239.50	7,417.60	7.78	294.54	6.01	0.28	Magn MWD	Phoenix Directional	-0.23	294.64	-9.94	N
7,614	0.30	203.40	7,595.60	6.86	295.55	5.12	0.22	Magn MWD	Phoenix Directional	-0.17	293.83	-20.34	N
7,791	0.30	210.40	7,772.59	8.03	293.13	4.30	0.02	Magn MWD	Phoenix Directional	0.00	293.19	3.95	N
7,969	0.50	212.40	7,950.59	4.98	292.48	3.24	0.11	Magn MWD	Phoenix Directional	0.11	292.52	1.12	N
8,146	0.80	210.00	8,127.58	3.28	291.43	1.63	0.17	Magn MWD	Phoenix Directional	0.17	291.46	-1.36	N
8,323	1.20	211.50	8,304.85	0.60	289.88	-1.12	0.23	Magn MWD	Phoenix Directional	0.23	289.88	0.85	N
8,500	1.20	211.80	8,481.51	-2.55	287.91	-4.28	0.00	Magn MWD	Phoenix Directional	0.00	287.93	0.17	N
8,678	1.00	214.10	8,461.51	-2.71	287.81	-4.42	2.05	Magn MWD	Phoenix Directional	-2.00	287.82	23.00	N
8,856	1.02	211.55	8,541.50	-3.45	287.33	-5.16	0.10	Magn MWD	Phoenix Directional	0.04	287.35	-5.10	N
8,548	11.65	8.37	8,628.94	4.70	288.22	2.99	14.31	Magn MWD	Baker Hughes	12.08	288.26	-	N
											230.89		



Directional Survey

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,165.00	Original R/B Elevation 3,197.60	Current R/B Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Survey Data													
MD (ft)	Incl (°)	Asn (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	CLS (°/100ft)	Method	Survey Company	Build (°/100ft)	Depart (ft)	Turn (°/100ft)	Unass d data
8,737	24.67	4.68	8,713.33	32.22	291.11	30.49	14.87	Magn MWD	Baker Hughes	14.83	292.89	-3.94	N
8,826	35.19	357.20	8,790.38	76.48	291.44	74.75	12.55	Magn MWD	Baker Hughes	11.82	301.30	395.89	N
8,914	43.82	349.40	8,858.25	131.89	284.58	130.20	11.30	Magn MWD	Baker Hughes	9.81	313.65	-8.86	N
8,956	47.48	353.20	8,889.71	163.69	279.74	162.03	10.13	Magn MWD	Baker Hughes	8.13	324.12	8.44	N
9,004	47.06	359.40	8,920.28	196.84	277.61	194.69	10.18	Magn MWD	Baker Hughes	-0.93	340.20	13.78	N
9,048	45.60	2.43	8,950.85	228.46	278.10	226.80	5.98	Magn MWD	Baker Hughes	-3.32	359.61	-	N
9,093	47.70	0.84	8,981.54	261.18	279.03	259.50	5.33	Magn MWD	Baker Hughes	4.87	382.18	-3.53	N
9,137	55.41	359.48	9,008.87	296.60	279.10	293.94	17.69	Magn MWD	Baker Hughes	17.52	406.54	815.06	N
9,181	63.10	357.75	9,031.35	333.37	278.18	331.72	17.79	Magn MWD	Baker Hughes	17.48	434.17	-3.89	N
9,228	71.03	356.18	9,048.88	374.72	275.95	373.08	17.91	Magn MWD	Baker Hughes	17.62	465.36	-3.49	N
9,270	75.36	357.35	9,061.59	416.75	273.58	415.13	10.16	Magn MWD	Baker Hughes	9.84	498.53	2.66	N
9,314	79.63	358.28	9,071.12	459.88	271.94	458.05	9.92	Magn MWD	Baker Hughes	9.70	534.09	2.11	N
9,359	87.84	358.34	9,078.03	504.35	270.82	502.74	18.24	Magn MWD	Baker Hughes	18.24	572.37	0.13	N
9,403	86.35	359.76	9,077.10	548.33	269.89	546.72	4.71	Magn MWD	Baker Hughes	3.43	611.15	3.23	N
9,447	89.32	0.51	9,077.82	592.33	270.00	590.71	1.71	Magn MWD	Baker Hughes	-0.07	650.68	-	N
9,536	89.68	1.22	9,078.41	681.31	271.34	679.69	0.88	Magn MWD	Baker Hughes	0.38	733.36	816.48	N
9,625	90.15	4.03	9,078.58	770.21	275.42	768.56	3.20	Magn MWD	Baker Hughes	0.85	817.97	0.80	N
9,714	90.43	3.01	9,078.10	859.04	280.88	857.36	1.19	Magn MWD	Baker Hughes	0.31	903.79	-1.15	N
9,802	90.74	1.88	9,077.21	948.98	284.48	945.25	1.54	Magn MWD	Baker Hughes	0.35	988.77	-1.60	N
9,892	90.25	357.78	9,078.43	1,036.94	284.07	1,035.23	4.38	Magn MWD	Baker Hughes	-0.54	1,075.14	395.66	N
9,981	90.49	357.67	9,078.85	1,125.86	280.64	1,124.18	0.30	Magn MWD	Baker Hughes	0.27	1,160.29	-0.12	N
10,069	90.25	3.69	9,075.28	1,213.82	281.58	1,212.12	6.85	Magn MWD	Baker Hughes	-0.27	1,246.05	402.25	N
10,158	90.59	2.48	9,074.63	1,302.68	286.37	1,300.96	1.41	Magn MWD	Baker Hughes	0.38	1,333.79	-1.36	N
10,247	90.48	3.70	9,073.82	1,391.55	291.17	1,389.80	1.38	Magn MWD	Baker Hughes	-0.15	1,421.88	1.37	N
10,336	89.68	5.54	9,073.72	1,480.25	298.34	1,478.48	2.25	Magn MWD	Baker Hughes	-0.90	1,510.02	2.07	N
10,425	89.75	2.85	9,074.18	1,568.01	304.85	1,567.17	3.02	Magn MWD	Baker Hughes	0.10	1,598.35	-3.02	N
10,513	89.78	358.48	9,074.54	1,656.97	308.65	1,655.13	3.82	Magn MWD	Baker Hughes	0.03	1,685.11	405.27	N
10,602	89.88	359.49	9,074.61	1,745.97	305.85	1,744.13	0.11	Magn MWD	Baker Hughes	0.11	1,772.58	0.00	N
10,690	89.85	1.38	9,075.01	1,833.96	306.52	1,832.11	2.15	Magn MWD	Baker Hughes	-0.03	1,859.40	-	N
10,779	89.88	1.44	9,075.22	1,922.94	308.71	1,921.07	0.08	Magn MWD	Baker Hughes	0.03	1,947.58	406.94	N



Directional Survey

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Current Elevation (ft) 3,185.00	Original RKB (ft) 3,197.60	Current RKB Elevation 3,197.60, 9/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Survey Data													
MD (ft)	Incl (°)	Asn (°)	TVD (ft)	ME (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Buid (°/100ft)	Depart (ft)	Turn (°/100ft)	Unuse d data
10.888	89.80	359.21	9,075.83	2,011.83	309.22	2,010.06	2.53	Magn MWD	Baker Hughes	-0.31	2,095.65	401.99	N
10.950	89.78	358.10	9,076.10	2,099.90	307.15	2,098.04	1.28	Magn MWD	Baker Hughes	0.20	2,122.26	-1.26	N
11.044	90.09	358.40	9,076.20	2,187.86	304.48	2,186.02	0.49	Magn MWD	Baker Hughes	0.35	2,208.94	0.34	N
11.133	90.12	358.64	9,076.04	2,275.83	302.16	2,275.00	0.27	Magn MWD	Baker Hughes	0.03	2,298.79	0.27	N
11.222	90.28	359.25	9,075.73	2,365.81	300.53	2,363.99	0.72	Magn MWD	Baker Hughes	0.18	2,384.83	0.70	N
11.310	90.18	2.35	9,075.38	2,453.79	301.77	2,451.96	3.51	Magn MWD	Baker Hughes	-0.11	2,472.28	405.58	N
11.399	90.00	0.79	9,075.24	2,542.76	304.21	2,540.91	1.78	Magn MWD	Baker Hughes	-0.20	2,560.89	-1.75	N
11.487	90.03	359.74	9,075.21	2,630.76	304.82	2,628.90	1.19	Magn MWD	Baker Hughes	0.03	2,648.33	407.90	N
11.576	90.08	358.81	9,075.14	2,719.75	303.57	2,717.90	0.93	Magn MWD	Baker Hughes	0.03	2,736.84	-0.93	N
11.665	90.09	358.53	9,075.03	2,808.73	301.58	2,806.89	0.43	Magn MWD	Baker Hughes	0.03	2,824.87	0.43	N
11.754	90.08	357.75	9,074.91	2,897.68	298.69	2,895.86	0.88	Magn MWD	Baker Hughes	-0.03	2,913.03	-0.88	N
11.842	89.97	356.01	9,074.89	2,986.64	298.20	2,983.83	1.44	Magn MWD	Baker Hughes	-0.10	3,000.30	1.43	N
11.931	90.00	0.40	9,074.91	3,074.84	295.74	3,072.83	1.59	Magn MWD	Baker Hughes	0.03	3,088.83	402.93	N
12.020	89.94	0.24	9,074.96	3,163.84	298.24	3,161.82	0.19	Magn MWD	Baker Hughes	-0.07	3,177.48	-0.18	N
12.109	89.88	0.86	9,075.10	3,252.83	297.10	3,250.81	0.70	Magn MWD	Baker Hughes	-0.07	3,256.17	0.70	N
12.198	90.00	2.15	9,075.19	3,341.80	298.43	3,339.76	1.49	Magn MWD	Baker Hughes	0.13	3,354.99	1.45	N
12.286	89.91	2.45	9,075.28	3,429.83	302.95	3,427.67	0.98	Magn MWD	Baker Hughes	-0.10	3,442.89	0.34	N
12.375	89.97	4.04	9,075.35	3,516.38	308.00	3,516.49	1.79	Magn MWD	Baker Hughes	0.07	3,531.84	1.76	N
12.464	89.94	2.13	9,075.42	3,607.25	312.78	3,605.33	2.15	Magn MWD	Baker Hughes	0.00	3,620.79	0.00	N
12.464	89.94	2.13	9,075.42	3,607.25	312.78	3,605.33	2.15	Magn MWD	Baker Hughes	-0.03	3,620.79	-2.15	N
12.553	89.97	358.44	9,075.49	3,696.23	313.23	3,694.31	4.15	Magn MWD	Baker Hughes	0.00	3,709.48	0.00	N
12.553	89.97	358.44	9,075.49	3,696.23	313.23	3,694.31	4.15	Magn MWD	Baker Hughes	0.03	3,709.48	400.35	N
12.641	90.00	358.80	9,075.52	3,784.15	309.58	3,782.25	1.85	Magn MWD	Baker Hughes	0.03	3,796.80	-1.85	N
12.641	90.00	358.80	9,075.52	3,784.15	309.58	3,782.25	1.85	Magn MWD	Baker Hughes	0.00	3,796.80	0.00	N
12.730	89.97	355.00	9,075.54	3,872.92	303.22	3,871.06	2.02	Magn MWD	Baker Hughes	-0.03	3,884.78	-2.02	N
12.730	89.97	355.00	9,075.54	3,872.92	303.22	3,871.06	2.02	Magn MWD	Baker Hughes	0.00	3,884.78	0.00	N
12.818	89.85	354.17	9,075.68	3,960.83	294.91	3,958.71	0.95	Magn MWD	Baker Hughes	0.00	3,971.49	0.00	N
12.818	89.85	354.17	9,075.68	3,960.83	294.91	3,958.71	0.95	Magn MWD	Baker Hughes	-0.14	3,971.49	-0.94	N
12.908	90.00	354.39	9,075.80	4,050.08	285.94	4,048.31	0.30	Magn MWD	Baker Hughes	0.00	4,060.15	0.00	N
12.908	90.00	354.39	9,075.80	4,050.08	285.94	4,048.31	0.30	Magn MWD	Baker Hughes	0.17	4,060.15	0.24	N



Directional Survey

Well Name SALADO DRAW WE 14 FED P7 004H		Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,165.90	Original RKB (ft) 3,197.60	Current RKB Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft)	Water Depth (ft)

Survey Data

MD (ft)	Inc (°)	Azim (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Method	Survey Company	Buid (°/100ft)	Depth (ft)	Turn (°/100ft)	Unusable data
12.996	89.91	355.57	9,075.86	4,137.74	278.24	4,138.02	1.34	Magn MWD	Baker Hughes	-0.10	4,147.09	1.34	N
12.996	89.91	355.57	9,075.86	4,137.74	278.24	4,138.02	1.34	Magn MWD	Baker Hughes	0.00	4,147.09	0.00	N
13.085	90.15	357.09	9,075.82	4,226.56	272.53	4,224.87	1.73	Magn MWD	Baker Hughes	0.27	4,235.34	1.71	N
13.085	90.15	357.09	9,075.82	4,226.56	272.53	4,224.87	1.73	Magn MWD	Baker Hughes	0.00	4,235.34	0.00	N
13.174	90.22	358.04	9,075.53	4,315.48	268.76	4,313.80	1.07	Magn MWD	Baker Hughes	0.00	4,323.84	0.00	N
13.174	90.22	358.04	9,075.53	4,315.48	268.76	4,313.80	1.07	Magn MWD	Baker Hughes	0.08	4,323.84	1.07	N
13.262	90.40	0.99	9,075.05	4,403.48	267.71	4,401.79	2.90	Magn MWD	Baker Hughes	0.00	4,411.59	0.00	N
13.262	90.40	0.99	9,075.05	4,403.48	267.71	4,401.79	2.90	Magn MWD	Baker Hughes	0.20	4,411.59	406.16	N
13.351	90.22	1.42	9,074.57	4,492.44	269.27	4,490.77	0.95	Magn MWD	Baker Hughes	-0.20	4,500.51	0.93	N
13.351	90.22	1.42	9,074.57	4,492.44	269.27	4,490.77	0.95	Magn MWD	Baker Hughes	0.00	4,500.51	0.00	N
13.440	90.12	0.33	9,074.31	4,581.43	270.63	4,579.75	1.23	Magn MWD	Baker Hughes	-0.11	4,589.42	-1.22	N
13.440	90.12	0.33	9,074.31	4,581.43	270.63	4,579.75	1.23	Magn MWD	Baker Hughes	0.00	4,589.42	0.00	N
13.529	90.37	1.19	9,073.93	4,670.42	271.81	4,668.73	1.01	Magn MWD	Baker Hughes	0.00	4,678.33	0.00	N
13.529	90.37	1.19	9,073.93	4,670.42	271.81	4,668.73	1.01	Magn MWD	Baker Hughes	0.28	4,678.33	0.97	N
13.617	90.09	0.10	9,073.58	4,758.42	272.80	4,756.71	1.28	Magn MWD	Baker Hughes	-0.32	4,766.23	-1.24	N
13.706	90.22	2.52	9,073.33	4,847.39	274.84	4,845.67	2.72	Magn MWD	Baker Hughes	0.15	4,855.17	2.72	N
13.791	90.22	3.21	9,073.01	4,932.28	276.09	4,930.53	0.81	Magn MWD	Baker Hughes	0.00	4,940.17	0.81	N
13.806	96.82	359.99	9,073.38	4,947.26	279.46	4,945.52	32.30	Magn MWD	Baker Hughes	-22.00	4,955.15	2.376	N
13.816	90.22	3.21	9,073.63	4,957.25	279.71	4,955.51	48.46	Extrap.	Baker Hughes	33.00	4,966.14	3,564.50	N



Casing Summary

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,155.00	Original RKB (ft) 3,197.60	Current RKB Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Conductor, Planned 7-N, 112RKB

Set Depth (MD) (ft): 112		Set Tension (kips)		String Nominal OD (in): 20		String Min Ditch (in): 18.187		Centralizers		Scratchers	
Jts	Item Desc	OD (in)	ID (in)	WT (lbf/ft)	Grade	Top Thread	Top Depth (MD) (ft)	Ben Depth (MD) (ft)	Len (ft)	P Burst (psi)	P Collapse (psi)
3	Casing Joint	20	19.125	169.00	K-55		38	112	74.00	3,380.0	2,500.0

Surface, Planned 7-N, 830RKB

Set Depth (MD) (ft) 830		Set Tension (kips)		String Nominal OD (in) 13 3/8		String Min Ditch (in)		Centralizers 9		Scratchers	
Jts	Item Desc	OD (in)	ID (in)	WT (lbf/ft)	Grade	Top Thread	Top Depth (MD) (ft)	Ben Depth (MD) (ft)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	FMC LH-2 Wellhead	19	12.615	54.50	J-55	ST&C	34	37	2.88		1,130.0
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	ST&C	37	41	4.05		1,130.0
18	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	41	785	743.61		1,130.0
1	Float Collar	13 3/8	12.615	54.50	J-55	ST&C	785	786	1.50		1,130.0
1	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	786	828	42.02		1,130.0
1	Shoe	13 3/8	12.615	54.50	J-55	ST&C	828	830	1.80		1,130.0

Intermediate Casing 1, Planned 7-N, 4,557RKB

Set Depth (MD) (ft):		Set Tension (kips):		String Nominal OD (in):		String Min Ditch (in):		Centralizers:		Scratchers:	
4,557				9 5/8				29			
Jts	Item Desc	OD (in)	ID (in)	WT (lbf/ft)	Grade	Top Thread	Top Depth (MD) (ft)	Ben Depth (MD) (ft)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Wellhead Joint	9 5/8	8.835			LT&C	34	35	1.20		
3	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55	LT&C	35	55	19.55		
10	Casing Joint	9 5/8	8.835	40.00	HCK-55	LT&C	55	4,469	4,414.09		4,230.0
1	Float Collar	9 5/8	8.835			LT&C	4,469	4,471	1.40		
2	Casing Joint	9 5/8	8.835	40.00	HCK-55	LT&C	4,471	4,555	84.64		4,230.0
1	Float Shoe	9 5/8	8.835			LT&C	4,555	4,557	1.64		

Production Casing, Planned 7-N, 13,800RKB

Set Depth (MD) (ft) 13,800		Set Tension (kips)		String Nominal OD (in) 5 1/2		String Min Ditch (in) 4.656		Centralizers 47		Scratchers	
Jts	Item Desc	OD (in)	ID (in)	WT (lbf/ft)	Grade	Top Thread	Top Depth (MD) (ft)	Stm Depth (MD) (ft)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Casing Hanger	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	32	33	1.14	12,360.0	11,100.0
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	33	38	4.21	12,360.0	11,100.0
18	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	38	7,540	7,502.02	12,360.0	11,100.0
1	Spacer Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	7,540	7,549	9.61	12,360.0	11,100.0
24	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	7,549	8,537	987.32	12,360.0	11,100.0
1	Marker Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	8,537	8,547	10.25	12,360.0	11,100.0
12	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	8,547	13,626	5,081.45	12,360.0	11,100.0
3											
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,626	13,638	9.80	12,360.0	11,100.0
1	RSI Toe Sleeve	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,638	13,645	6.60	12,360.0	11,100.0
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,645	13,654	9.61	12,360.0	11,100.0
1	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,654	13,695	40.83	12,360.0	11,100.0
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,695	13,706	10.23	12,360.0	11,100.0
1	Landing Collar	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,706	13,707	1.42	12,360.0	11,100.0
1	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,707	13,750	42.87	12,360.0	11,100.0
1	Float Collar	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,750	13,752	2.42	12,360.0	11,100.0
1	XRV Vibrator/Tool	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,752	13,754	2.22	12,360.0	11,100.0
1	Casing Joint	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,754	13,797	42.66	12,360.0	11,100.0
1	Float Shoe	5 1/2	4.781	20.00	HCP-110	TXP-BTC-S	13,797	13,800	2.58	12,360.0	11,100.0



Cement Summary

Surface Casing Cement

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,165.00	Original RCB (ft) 3,197.60	Current RCB Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Original Hole			
Wellbore Name Original Hole	Directional Type Horizontal	Min Risk Off Depth (ftCB) 8,567.0	Vertical Section Direction (°) 359.66
Hole Size (in)	Act Top (ftCB)	Act Btm (ftCB)	
17 1/2	32.6	840.0	
12 1/4	840.0	4,567.0	
8 3/4	4,567.0	13,616.0	

<type>, <make> on <datetime>

Sub Type	Insert Date
Des	Make
Model	WP (psi)
Service	SN

Conductor, Planned? -N, 112ftKB

Casing Description Conductor	Wellbore Original Hole	Run Date 4/1/2016	Set Depth (MD) (ftCB) 112	Stick Up (ftCB) -38.0	Set Tension (kips)
Scratchers					

Jts	Item Des	OO (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftCB)	Btm Depth (MD) (ftCB)
3	Casing Joint	20	19.125	169.00	K-55			74.00	38	112

Surface, Planned? -N, 830ftKB

Casing Description Surface	Wellbore Original Hole	Run Date 4/19/2016	Set Depth (MD) (ftCB) 830	Stick Up (ftCB) -34.1	Set Tension (kips)
Scratchers					

Jts	Item Des	OO (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftCB)	Btm Depth (MD) (ftCB)
1	FMC UH-2 Wellhead	19	12.615	54.50	J-55		ST&C	2.86	34	37
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55		ST&C	4.06	37	41
18	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	743.61	41	785
1	Float Collar	13 3/8	12.615	54.50	J-55		ST&C	1.50	785	786
1	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	42.02	786	828
1	Shoe	13 3/8	12.615	54.50	J-55		ST&C	1.80	828	830

Intermediate Casing 1, Planned? -N, 4,557ftKB

Casing Description Intermediate Casing 1	Wellbore Original Hole	Run Date 5/6/2016	Set Depth (MD) (ftCB) 4,557	Stick Up (ftCB) -34.3	Set Tension (kips)
Scratchers					

Jts	Item Des	OO (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftCB)	Btm Depth (MD) (ftCB)
1	Wellhead Joint	9 5/8	8.835				LT&C	1.20	34	35
3	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55		LT&C	19.65	35	55
106	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	4,414.09	55	4,469
1	Float Collar	9 5/8	8.835				LT&C	1.49	4,469	4,471
2	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	84.84	4,471	4,555
1	Float Shoe	9 5/8	8.835				LT&C	1.64	4,555	4,557

Production Casing, Planned? -N, 13,800ftKB

Casing Description Production Casing	Wellbore Original Hole	Run Date 5/15/2016	Set Depth (MD) (ftCB) 13,800	Stick Up (ftCB) -32.2	Set Tension (kips)
Scratchers					

Jts	Item Des	OO (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftCB)	Btm Depth (MD) (ftCB)
1	Casing Hanger	5 1/2	4.761	20.00	HCP-110		TXP-BTC-S	1.14	32	33
1	Casing Pup Joint	5 1/2	4.761	20.00	HCP-110		TXP-BTC-S	4.21	33	38
161	Casing Joint	5 1/2	4.761	20.00	HCP-110		TXP-BTC-S	7,502.02	38	7,540
1	Spacer Joint	5 1/2	4.761	20.00	HCP-110		TXP-BTC-S	9.61	7,540	7,549
24	Casing Joint	5 1/2	4.761	20.00	HCP-110		TXP-BTC-S	987.32	7,549	8,537
1	Marker Joint	5 1/2	4.761	20.00	HCP-110		TXP-BTC-S	10.25	8,537	8,547
123	Casing Joint	5 1/2	4.761	20.00	HCP-110		TXP-BTC-S	5,061.45	8,547	13,628



Cement Summary

Surface Casing Cement

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,195.00	Original PMS (ft) 3,197.60	Current PMS Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Job	Item Desc	OD (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ft)	Ben Depth (MD) (ft)
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.80	13.628	13.638
1	RSI Toe Sleeve	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	6.60	13.638	13.645
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.81	13.645	13.654
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	40.83	13.654	13.665
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	10.23	13.665	13.706
1	Landing Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.42	13.706	13.707
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	42.87	13.707	13.750
1	Float Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.42	13.750	13.752
1	XRV Vibrator/Tool	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.22	13.752	13.754
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	42.68	13.754	13.797
1	Float Shoe	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.68	13.797	13.800

Surface Casing Cement, Casing, 4/19/2016 11:30

Cementing Start Date 4/19/2016	Cementing End Date 4/19/2016	Well Use Original Hole
Evaluation Method Returns to Surface	Cement Evaluation Results 110 bbls cmt to surface	

Comment

Performed cement job as follows:
 Pressure tested lines to 3500 psi.
 Pump 40 bbls of Spacer at 6.3 ppg
 Mix and pump 960 sxs (227 bbls) of Cement at 14.8 ppg
 Drop plug and displace cement with 121 bbls of 8.3 ppg Fresh Water.
 Bumped plug with 534 psi over final circulating pressure.
 Bled pressure off - floats held

Details:

Full returns throughout job
 Final circulating pressure prior to bumping plug 350 psi at 2.1 bpm.
 110 bbls of cement to surface.
 Cement in place @ 13:15

1, 37.0-840.0HKB

Top Depth (ft)	Bottom Depth (ft)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
37.0	840.0	Y	110.0	Y	N
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Pug Bump Pressure (psi)	
5.6	2.2	6	350.0	884.0	
Pipe Recirculated?	Recirculation Stroke Length (ft)	Recirculation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)	
N			N		
Depth Tagged (MD) (ft)	Tag Method	Depth Plug Closed Out To (ft)	Drill Out Diameter (in)	Drill Out Date	

Spacer

Fluid Type Spacer	Fluid Description	Quantity (barrels)	Class	Volume Pumped (bbl)
				40.0
Estimated Top (ft)	Estimated Bottom Depth (ft)	Percent Excess Pumped (%)	Yield (ft/acre)	Fluid Mix Ratio (gal/acre)
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.33			

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type Tail	Fluid Description	Quantity (barrels)	Class	Volume Pumped (bbl)
		960	C	227.0
Estimated Top (ft)	Estimated Bottom Depth (ft)	Percent Excess Pumped (%)	Yield (ft/acre)	Fluid Mix Ratio (gal/acre)
332.6	832.0	125.0	1.33	6.37
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.80			



Cement Summary

Surface Casing Cement

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,165.00	Original RIG (ft) 3,197.50	Current RIG Elevation 3,197.50, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Cement Fluid Additives

Add	Type	Conc
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Displacement

Fluid Type Displacement	Fluid Description	Quantity (sacks)	Class	Volume Pumped (bbl) 120.0
Estimated Top (ft/B)	Estimated Bottom Depth (ft/B)	Percent Excess Pumped (%)	Yield (lb/sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 8.33	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc
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Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,155.00	Original R/W (ft) 3,197.80	Current R/W Elevation 3,197.80, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Original Hole	Directional Type Horizontal	Min Kick Off Depth (ft) 8,567.0	Vertical Section Direction (°) 359.86
Hole Size (in)	Act Top (ft)	Act Bot (ft)	
17 1/2	32.6	840.0	
12 1/4	840.0	4,567.0	
8 3/4	4,567.0	13,816.0	

<type>, <make> on <datetime>					
Sub Type	Des	Make	Model	WP (psi)	Service
					SN

Conductor, Planned? - N, 112HKB	Run Date 4/1/2016	Set Depth (MD) (ft) 112	Stick Up (ft) -38.0	Set Tension (kips)
Casing Description Conductor	Wellbore Original Hole	Scratchers		

Jt	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ft)	Bot Depth (MD) (ft)
3	Casing Joint	20	19.125	169.00	K-55			74.00	38	112

Surface, Planned? - N, 630RKB	Run Date 4/19/2016	Set Depth (MD) (ft) 630	Stick Up (ft) -34.1	Set Tension (kips)
Casing Description Surface	Wellbore Original Hole	Scratchers		

Jt	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ft)	Bot Depth (MD) (ft)
1	FMC UH-2 Wellhead	19	12.615	54.50	J-55		ST&C	2.88	34	37
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55		ST&C	4.05	37	41
18	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	743.61	41	785
1	Float Collar	13 3/8	12.615	54.50	J-55		ST&C	1.50	785	786
1	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	42.02	786	828
1	Shoe	13 3/8	12.615	54.50	J-55		ST&C	1.80	828	830

Intermediate Casing 1, Planned? - N, 4,557RKB	Run Date 5/5/2016	Set Depth (MD) (ft) 4,557	Stick Up (ft) -34.3	Set Tension (kips)
Casing Description Intermediate Casing 1	Wellbore Original Hole	Scratchers		

Jt	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ft)	Bot Depth (MD) (ft)
1	Wellhead Joint	9 5/8	8.835				LT&C	1.20	34	35
3	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55		LT&C	19.55	35	55
106	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	4,414.09	55	4,469
1	Float Collar	9 5/8	8.835				LT&C	1.49	4,469	4,471
2	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	84.94	4,471	4,555
1	Float Shoe	9 5/8	8.835				LT&C	1.64	4,555	4,557

Production Casing, Planned? - N, 13,800HKB	Run Date 5/15/2016	Set Depth (MD) (ft) 13,800	Stick Up (ft) -32.2	Set Tension (kips)
Casing Description Production Casing	Wellbore Original Hole	Scratchers		

Jt	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ft)	Bot Depth (MD) (ft)
1	Casing Hanger	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.14	32	33
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	4.21	33	38
181	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	7,502.02	38	7,540
1	Spacer Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.61	7,540	7,549
24	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	687.32	7,549	8,537
1	Marker Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	10.25	8,537	8,547
123	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5,081.45	8,547	13,628



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,165.00	Original RKB (ft) 3,197.60	Cement RKB Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

JS	Item Desc	OO (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ft)	Bot Depth (MD) (ft)
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.80	13,628	13,638
1	RSI Toe Sleeve	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	6.60	13,638	13,645
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.81	13,646	13,654
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	40.83	13,654	13,695
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	10.23	13,695	13,706
1	Landing Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.42	13,706	13,707
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	42.67	13,707	13,750
1	Float Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.42	13,750	13,752
1	XRV Vibrator/Tool	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.22	13,752	13,754
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	42.88	13,754	13,797
1	Float Shoe	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.68	13,797	13,800

Intermediate Casing Cement, Casing, 5/8/2016 21:21

Cementing Start Date 5/8/2016	Cementing End Date 5/7/2016	Wellbore Original Hole
Evaluation Method Returns to Surface	Cement Evaluation Results 190 bbls cmt to surface	
Comments		

1, 37.0-4,567.0RKB

Top Depth (ft)	Bottom Depth (ft)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
37.0	4,567.0	Y	190.0	Y	N
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Pug Bump Pressure (psi)	
4.7	3.3	6.8			
Pipe Recognized?	Recognition Stroke Length (ft)	Recognition Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)	
N			N		
Depth Tagged (MD) (ft)	Tag Method	Depth Plug Offset Out To (ft)	Off Out Diameter (in)	Drill Out Date	

Spacer

Fluid Type Spacer	Fluid Description Dyed Spacer	Quantity (sacks)	Class C	Volume Pumped (bbl)
				40.0
Estimated Top (ft)	Estimated Bottom Depth (ft)	Percent Excess Pumped (%)	Yield (ft/sack)	Fluid Mix Ratio (gal/sack)
32.6	32.6			
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	8.30			

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type Lead	Fluid Description 60:50 POZ/C	Quantity (sacks)	Class C	Volume Pumped (bbl)
		1,955		456.0
Estimated Top (ft)	Estimated Bottom Depth (ft)	Percent Excess Pumped (%)	Yield (ft/sack)	Fluid Mix Ratio (gal/sack)
32.6	3,567.0	150.0	2.43	13.77
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	11.90			

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type Tail	Fluid Description C-Neat	Quantity (sacks)	Class C	Volume Pumped (bbl)
		462		109.0
Estimated Top (ft)	Estimated Bottom Depth (ft)	Percent Excess Pumped (%)	Yield (ft/sack)	Fluid Mix Ratio (gal/sack)
3,567.0	4,567.0	85.0	1.33	6.35
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	14.80			



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 14 FED P7 004H	License SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,165.00	Original RGS Elevation 3,197.60	Current RGS Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Cement Fluid Additives		
Add	Type	Conc

Displacement				
Fluid Type Displacement	Fluid Description Displacement	Quantity (sacks)	Cross	Volume Pumped (bb) 340.0
Estimated Top (RGS)	Estimated Bottom Depth (RGS)	Percent Excess Pumped (%)	Yield (lb/sack)	Fluid Mix Rate (gal/sack)
Free Water (%)	Density (lb/gal) 8.30	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives		
Add	Type	Conc



Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,165.00	Original RKB (ft) 3,197.60	Current RKB Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Original Hole			
Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB) 8,567.0	Vertical Section Direction (°) 359.66
Well Site (in)	Act Top (ftKB)		Act Ben (ftKB)
17 1/2	32.6		840.0
12 1/4	840.0		4,567.0
8 3/4	4,567.0		13,816.0

<type> <make> on <datetime>

Run Date			
Des	Make	Model	WP (psi)
			Service
			SN

Conductor, Planned?N, 112ftKB

Casing Description Conductor	Wellbore Original Hole	Run Date 4/1/2016	Set Depth (MD) (ftKB) 112	Stick Up (ftKB) -36.0	Set Tension (kips)
Centralizers		Scratchers			

Jt#	Item Des	OD (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Ben Depth (MD) (ftKB)
3	Casing Joint	20	19.125	169.00	K-55			74.00	38	112

Surface, Planned?N, 830ftKB

Casing Description Surface	Wellbore Original Hole	Run Date 4/19/2016	Set Depth (MD) (ftKB) 830	Stick Up (ftKB) -34.1	Set Tension (kips)
Centralizers		Scratchers			

Jt#	Item Des	OD (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Ben Depth (MD) (ftKB)
1	FMC UH-2 Wellhead	19	12.615	54.50	J-55		ST&C	2.88	34	37
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55		ST&C	4.05	37	41
18	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	743.61	41	785
1	Float Collar	13 3/8	12.615	54.50	J-55		ST&C	1.50	785	786
1	Casing Joint	13 3/8	12.615	54.50	J-55		ST&C	42.02	786	828
1	Shoe	13 3/8	12.615	54.50	J-55		ST&C	1.80	828	830

Intermediate Casing 1, Planned?N, 4,557ftKB

Casing Description Intermediate Casing 1	Wellbore Original Hole	Run Date 5/6/2016	Set Depth (MD) (ftKB) 4,557	Stick Up (ftKB) -34.3	Set Tension (kips)
Centralizers		Scratchers			

Jt#	Item Des	OD (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Ben Depth (MD) (ftKB)
1	Wellhead Joint	9 5/8	8.835				LT&C	1.20	34	35
3	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55		LT&C	19.85	35	55
106	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	4,414.09	55	4,469
1	Float Collar	9 5/8	8.835				LT&C	1.49	4,469	4,471
2	Casing Joint	9 5/8	8.835	40.00	HCK-55		LT&C	84.84	4,471	4,555
1	Float Shoe	9 5/8	8.835				LT&C	1.64	4,555	4,557

Production Casing, Planned?N, 13,800ftKB

Casing Description Production Casing	Wellbore Original Hole	Run Date 5/15/2016	Set Depth (MD) (ftKB) 13,800	Stick Up (ftKB) -32.2	Set Tension (kips)
Centralizers		Scratchers			

Jt#	Item Des	OD (in)	ID (in)	WT (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Ben Depth (MD) (ftKB)
1	Casing Hanger	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.14	32	33
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	4.21	33	38
181	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	7,502.02	38	7,540
1	Spacer Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.61	7,540	7,549
24	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	987.32	7,549	8,537
1	Marker Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	10.25	8,537	8,547
123	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	5,061.45	8,547	13,628



Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 14 FED P7 004H	Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft) 3,165.00	Original RKB (ft) 3,197.60	Current RKB Elevation 3,197.60, 3/28/2016	Mud Line Elevation (ft) Water Depth (ft)

Job	Item Desc	CO (in)	ID (in)	Vol (bbl)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ft)	Bot Depth (MD) (ft)
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.80	13,628	13,638
1	RSI Tee Sleeve	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	6.60	13,638	13,645
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	9.81	13,645	13,654
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	40.63	13,654	13,695
1	Casing Pup Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	10.23	13,695	13,706
1	Landing Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	1.42	13,706	13,707
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	42.87	13,707	13,750
1	Float Collar	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.42	13,750	13,752
1	XRV Vibrator/Tool	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.22	13,752	13,754
1	Casing Joint	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	42.88	13,754	13,797
1	Float Shoe	5 1/2	4.781	20.00	HCP-110		TXP-BTC-S	2.68	13,797	13,800

Production Casing Cement, Casing, 5/15/2016 10:30

Cementing Start Date 5/15/2016	Cementing End Date 5/15/2016	Wellbore Original Hole
Cementation Method Lift Pressure	Cement Evaluation Results Actual final lift pressure exceeded design lift pressure.	

Comments

1, 3,850.0-13,800.0RKB

Top Depth (ft)	Bottom Depth (ft)	Full Return?	Vol Cement Ret (bbl)	Top Plug?	Bottom Plug?
3,850.0	13,800.0	N	0.0	Y	Y
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Pump Bump Pressure (psi)	
6.2	3.4	6.5	1,964.0	2,500.0	
Pipe Reciprocated?	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)	
N			N		
Depth Tagged (MD) (ft)	Tag Method	Depth Plug Drilled Out To (ft)	Drill Out Diameter (in)	Drill Out Class	
13,797					

Spacer

Fluid Type Spacer	Fluid Description MUJOPUSH Express Spacer D047 - 2 gal/bbl B389 - 60 lb/bbl BW IV Spacer D035 - 2801.3 lb/mgal	Quantity (sacks)	Class	Volume Pumped (bbl)
				30.0
Estimated Top (ft)	Estimated Bottom Depth (ft)	Percent Excess Pumped (%)	Yield (ft/sack)	Fluid Mix Ratio (gal/sack)
3,204.0	3,850.0			
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	10.00			

Cement Fluid Additives

Add	Type	Conc
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Lead

Fluid Type Lead	Fluid Description 50:50 Poz/H + 2% D046 + 6.5% D020 + 8% D154 + 2% D065 + 2lb/sk B288 + 2 lb/sk B289 + 63 GPS D017	Quantity (sk-skt)	Class	Volume Pumped (bbl)
		624	H	299.0
Estimated Top (ft)	Estimated Bottom Depth (ft)	Percent Excess Pumped (%)	Yield (ft/sack)	Fluid Mix Ratio (gal/sack)
3,850.0	8,967.0	50.0	2.69	15.77
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)
	11.50			

Cement Fluid Additives

Add	Type	Conc
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Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 14 FED P7 004H		Lease SD 14 FED P7	Field Name JENNINGS	Business Unit Mid-Continent	
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation		Mud Line Elevation (ft)	Water Depth (ft)
3,185.00	3,197.80	3,197.80, 3/28/2016			

Lead					
Fluid Type Lead	Fluid Description TXI + 3% D020 + .2% D046 + 2% D065 + .4% D238 + .4% D013 + .06% D208 + .01 GPS D177	Quantity (sacks) 805	Class H	Volume Pumped (bb) 258.0	

Estimated Top (ft/B)	Estimated Bottom Depth (ft/B)	Percent Excess Pumped (%)	Yield (ft/sack)	Fluid Mix Ratio (gal/sack)	
8,567.0	12,800.0	35.0	1.60	8.62	
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)	
	12.50				

Cement Fluid Additives					
Add	Type		Conc		

Tail					
Fluid Type Tail	Fluid Description Class H + 2% D046 + .2% D065 + .4% D167 + .15% D800 + 75% D151 + .1% D208	Quantity (sacks) 120	Class H	Volume Pumped (bb) 47.0	

Estimated Top (ft/B)	Estimated Bottom Depth (ft/B)	Percent Excess Pumped (%)	Yield (ft/sack)	Fluid Mix Ratio (gal/sack)	
12,800.0	13,816.0	0.0	2.18	9.55	
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)	
	15.00				

Cement Fluid Additives					
Add	Type		Conc		

Displacement					
Fluid Type Displacement	Fluid Description 20 bbls Acetic Acid 284 bbls FW	Quantity (sacks)	Class	Volume Pumped (bb) 304.0	

Estimated Top (ft/B)	Estimated Bottom Depth (ft/B)	Percent Excess Pumped (%)	Yield (ft/sack)	Fluid Mix Ratio (gal/sack)	
				8.33	
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)	
	8.33				

Cement Fluid Additives					
Add	Type		Conc		