

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNMOC
HobbsFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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 page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM118722
2. Name of Operator CHEVRON USA INC		6. If Indian, Allottee or Tribe Name
Contact: DENISE PINKERTON E-Mail: leakejd@chevron.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 1616 W. BENDER BLVD HOBBS, NM 88240	3b. Phone No. (include area code) Ph: 432-687-7375	8. Well Name and No. SD WE 24 FED P23 4H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 24 T26S R32E SESW 260FSL 1358FWL		9. API Well No. 30-025-43298-00-X1
		10. Field and Pool or Exploratory Area WC025G06S263319P-BONE SPRING
		11. County or Parish, State LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ 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 recomple 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

THIS IS AN AMENDED REPORT FOR SPUD AND DRILLING OPERATIONS AND WILL REPLACE EC#356680 SUBMITTED ON 11/01/2016 & APPROVED ON 11/30/2016

***PLEASE SEE ATTACHED DETAILED REPORT FOR SPUD, SURFACE, INTERMEDIATE, & PRODUCTION CASING, CEMENTING INFORMATION, AND RELEASE OF RIG. ALSO ATTACHED, IS THE DIRECTIONAL SURVEY, AND CASING & CEMENTING INFORMATION.

THIS WELL IS CURRENTLY BEING COMPLETED AND PRODUCTION START UP WILL BE SUBMITTED UPON COMPLETION.

08/17/2016: SPUD WELL.

08/19/2016: SET SURFACE CASING @ 750'.

08/19/2016 THROUGH 09/07/2016: DRILLED 770 - 4615'.

Circulate on surface casing? To con production?

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #360888 verified by the BLM Well Information System For CHEVRON USA INC, sent to the Hobbs Committed to AFMSS for processing by JENNIFER SANCHEZ on 12/20/2016 (17JAS0130SE)	
Name (Printed/Typed)	DENISE PINKERTON
Title	PERMITTING SPECIALIST
Signature	(Electronic Submission)
Date	12/14/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By	Title	Date
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.

(Instructions on page 2)

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

Additional data for EC transaction #360888 that would not fit on the form

32. Additional remarks, continued

09/07/2016: SET INTERMEDIATE CASING @ 4605' ✓

09/08/2016 THROUGH 09/27/2016: DRILL 4625 - 18709' ✓

09/28/2016: SET PRODUCTION CASING @ 18,694' ✓

09/30/2016: RELEASE RIG.

SD WE 24 FED P23 No. 4H

Nabors X-30 began drilling the 17 1/2" hole on 08/17/2016.

Surface Casing

TD 17 1/2" hole at 760' on 08/18/2016.

Ran 13 3/8", 54.5#, J-55 STC surface casing and set @ 750'.

Centralizer placed 10' above float shoe, 10' above the FC, & every 3rd jt to surface.

Cemented with:

Tail – 844 sacks Class "C", Yield:1.33, Fluid Mix Ratio:6.36, Density:14.80

Install wellhead. NU BOP. Test BOPE to 250L/5000H. 09/05/2016.

Intermediate Casing

TD 12 1/4" hole at 4615' on 09/07/2016.

Ran 9 5/8", 40#, HCK-55, LTC casing & set @ 4605'.

Centralized with 30 bow spring centralizers, 4 on the shoe track, 1 bow spring centralizer every 4 jts to surface.

Cemented with:

Lead – 1001 sacks Class "C", w/3%BWOB D020+5%BWOB D044+0.2%BWOB D046+10% BWOB D154.
Yield: 254, Fluid Mix Ratio-13.86, Density:11.90.

Tail – 426 sacks Class "C", w/0.01 gals/sk D177 Spike, Yield-1.33, Fluid Mix Ratio-6.37, Density-14.80

Displace w/334bbbls OBM.

Bump plug w/500psi over final circ pressure @ 1.750psi.

Circulated 226 bbls of cement to surface. ✓

Full returns throughout job.

Install wellhead. NU BOP. Test 250/3300psi. Press test csg to 2765psi for 30 mins. Good.

Production Casing

TD 8 1/2" hole at 18,709 on 09/27/2016.

Ran 5 1/2", 20#, HCP-110, TXP BTC production csg & set @ 18,694'.

circulated?

Circulate 1.5 B/U through casing valves to downstream manifold @ 8 BPM w/1,600psi.

Cemented with:

Lead 1 – 621 sacks Class "H" w/0.5/10bbl D177&CemNet added – 301 bbls, 621, sx, 11.5ppg, Yield-2.72, Fluid Mix Ratio-15.89, Density-11.50

Lead 2 – 1933 sx Class "H" w/0.5/10 bbl D177, 12.5ppg, Yield-1.62, Fluid Mix Ratio-8.47, Density-12.50.

Tail – 111 sacks Class "H" , Yield-2.18, Fluid Mix Ratio – 9.56, Density – 15.00

Displacement – 411 bbls fresh water.

Finish circulating 1.5 B/U @ 8BPM w/1600psi.

Release Rig @ 2:30 hrs on 09/30/2016.



Casing Summary

Well Name SALADO DRAW WE 24 FED P23 004H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Surface, Planned? -N, 750ftKB

Set Depth (MD) (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers	
750				13 3/8				7			
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1		13 3/8	12.615	54.50	J-55	ST&C	36	39	2.90		1,130.0
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	ST&C	39	43	4.13		1,130.0
16	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	43	704	661.19		1,130.0
1	Float Collar	13 3/8	12.615	54.50	J-55	ST&C	704	705	1.38		
1	Casing Joint	13 3/8	12.615	54.50	J-55	ST&C	705	748	42.89		1,130.0
1	Float Shoe	13 3/8	12.615	54.50	J-55	ST&C	748	750	1.78		

Intermediate Casing 1, Planned? -N, 4,605ftKB

Set Depth (MD) (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers	
4,605				9 5/8		8.688		30			
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
0	Casing Joint	9 5/8	8.835	40.00	HCK-55	LT&C	34	34	0.00	3,950.0	4,230.0
0	Landing Joint	9 5/8	8.835	40.00	HCK-55	LT&C	34	34	0.00	3,950.0	4,230.0
1	Hanger	9 5/8	8.835	40.00	HCK-55	LT&C	34	37	2.44	3,950.0	4,230.0
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55	LT&C	37	41	4.20	3,950.0	4,230.0
10	Casing Joint	9 5/8	8.835	40.00	HCK-55	LT&C	41	4,521	4,480.03	3,950.0	4,230.0
8											
1	Float Collar	9 5/8	8.835			LT&C	4,521	4,523	1.49		
2	Casing Joint	9 5/8	8.835	40.00	HCK-55	LT&C	4,523	4,603	80.86	3,950.0	4,230.0
1	Float Shoe	9 5/8	8.835			LT&C	4,603	4,605	1.62		

Production Casing, Planned? -N, 18,694ftKB

Set Depth (MD) (ftKB)		Set Tension (kips)		String Nominal OD (in)		String Min Drift (in)		Centralizers		Scratchers	
18,694				5 1/2				171			
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Landing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	-7	34	40.66		
1	Hanger	5 1/2	4.800	20.00	P-110	TXP-BTC	34	35	1.28		
1	Hanger Pup	5 1/2	4.800	20.00	P-110	TXP-BTC	35	40	4.35		
20	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	40	834	793.98		
1	Pup Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	834	839	5.17		
19	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	839	8,594	7,755.15		
8											
1	Marker Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	8,594	8,604	10.31		
25	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	8,604	18,527	9,922.85		
4											
1	Pup Jt	5 1/2	4.800	20.00	P-110	TXP-BTC	18,527	18,537	9.86		
1	RSI	5 1/2	4.800	20.00	P-110	TXP-BTC	18,537	18,544	6.66		
1	Pup Jt	5 1/2	4.800	20.00	P-110	TXP-BTC	18,544	18,554	9.87		
1	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	18,554	18,593	39.17		
1	Pup Jt	5 1/2	4.800	20.00	P-110	TXP-BTC	18,593	18,602	9.67		
1	Land Collar	5 1/2	4.800	20.00	P-110	TXP-BTC	18,602	18,604	1.46		
1	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	18,604	18,644	40.01		
1	Float Collar	5 1/2	4.800	20.00	P-110	TXP-BTC	18,644	18,646	2.42		
1	XRV	5 1/2	4.800	20.00	P-110	TXP-BTC	18,646	18,649	2.22		
1	Casing Joint	5 1/2	4.800	20.00	P-110	TXP-BTC	18,649	18,691	42.42		
1	Float Shoe	5 1/2	4.800	20.00	P-110	TXP-BTC	18,691	18,694	3.04		



Cement Summary

Surface Casing Cement

Well Name SALADO DRAW WE 24 FED P23 004H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Original Hole

Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB) 8,600.0	Vertical Section Direction (") 359.71
Hole Size (in)	Act Top (ftKB)	Act Blm (ftKB)	
17 1/2	155.0	760.0	
12 1/4	760.0	4,615.0	
8 3/4	4,615.0	18,709.0	

Multi-bowl, FMC on 8/19/2016 04:30

Sub-Type Multi-bowl	Install Date 8/19/2016				
Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?N, 750ftKB

Casing Description Surface		Wellbore Original Hole		Run Date 8/19/2016		Set Depth (MD) (ftKB) 750		Stick Up (ftKB) -35.7		Set Tension (kips)	
Centralizers 7						Scratchers					
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Blm Depth (MD) (ftKB)	
1		13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.90	36	39	
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	4.13	39	43	
16	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	661.19	43	704	
1	Float Collar	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	1.38	704	705	
1	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	42.89	705	748	
1	Float Shoe	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	1.78	748	750	

Intermediate Casing 1, Planned?N, 4,605ftKB

Casing Description Intermediate Casing 1		Wellbore Original Hole		Run Date 9/8/2016		Set Depth (MD) (ftKB) 4,605		Stick Up (ftKB) -34.4		Set Tension (kips)	
Centralizers 30						Scratchers					
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Blm Depth (MD) (ftKB)	
0	Casing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	0.00	34	34	
0	Landing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	0.00	34	34	
1	Hanger	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	2.44	34	37	
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	4.20	37	41	
108	Casing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	4,480.03	41	4,521	
1	Float Collar	9 5/8	8.835			9 5/8	LT&C	1.49	4,521	4,523	
2	Casing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	80.86	4,523	4,603	
1	Float Shoe	9 5/8	8.835			9 5/8	LT&C	1.62	4,603	4,605	

Production Casing, Planned?N, 18,694ftKB

Casing Description Production Casing		Wellbore Original Hole	Run Date 9/29/2016		Set Depth (MD) (ftKB) 18,694		Stick Up (ftKB) 6.5		Set Tension (kips)	
Centralizers 171					Scratchers					
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Blm Depth (MD) (ftKB)
1	Landing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	40.66	-7	34
1	Hanger	5 1/2	4.800	20.00	P-110		TXP-BTC	1.28	34	35
1	Hanger Pup	5 1/2	4.800	20.00	P-110		TXP-BTC	4.35	35	40
20	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	793.98	40	834
1	Pup Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	5.17	834	839
198	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	7,755.15	839	8,594
1	Marker Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	10.31	8,594	8,604
254	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	9,922.85	8,604	18,527
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.86	18,527	18,537



Cement Summary

Surface Casing Cement

Well Name SALADO DRAW WE 24 FED P23 004H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Jls	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	RSI	5 1/2	4.800	20.00	P-110		TXP-BTC	6.66	18,537	18,544
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.87	18,544	18,554
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.17	18,554	18,593
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.67	18,593	18,602
1	Land Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.46	18,602	18,604
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	40.01	18,604	18,644
1	Float Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	2.42	18,644	18,646
1	XRV	5 1/2	4.800	20.00	P-110		TXP-BTC	2.22	18,646	18,649
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	42.42	18,649	18,691
1	Float Shoe	5 1/2	4.800	20.00	P-110		TXP-BTC	3.04	18,691	18,694

Surface Casing Cement, Casing, 8/19/2016 12:30

Cementing Start Date 8/19/2016	Cementing End Date 8/19/2016	Wellbore Original Hole
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Evaluation Method Returns to Surface	Cement Evaluation Results 85 bbls of cement to surface
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Comment

1, 35.8-750.0ftKB

Top Depth (ftKB) 35.8	Bottom Depth (ftKB) 750.0	Full Return? N	Vol Cement Ret (bbl) 85.0	Top Plug? Y	Bottom Plug? N
Initial Pump Rate (bbl/min) 5	Final Pump Rate (bbl/min) 2.3	Avg Pump Rate (bbl/min) 5	Final Pump Pressure (psi) 280.0	Plug Bump Pressure (psi) 829.0	
Pipe Reciprocated? N	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated? N	Pipe RPM (rpm)	
Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date	

Preflush

Fluid Type Preflush	Fluid Description	Quantity (sacks) 844	Class C	Volume Pumped (bbl) 200.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 8.40	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Tail

Fluid Type Tail	Fluid Description	Quantity (sacks) 844	Class C	Volume Pumped (bbl) 200.0
Estimated Top (ftKB) 35.8	Estimated Bottom Depth (ftKB) 750.0	Percent Excess Pumped (%) 125.0	Yield (ft ³ /sack) 1.33	Fluid Mix Ratio (gal/sack) 6.36
Free Water (%)	Density (lb/gal) 14.80	Zero Gel Time (min)	Thickening Time (hr) 4.13	1st Compressive Strength (psi) 93.0

Cement Fluid Additives

Add	Type	Conc

Displacement

Fluid Type Displacement	Fluid Description	Quantity (sacks) 844	Class C	Volume Pumped (bbl) 109.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 10.00	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 24 FED P23 004H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Original Hole

Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB) 8,600.0	Vertical Section Direction (°) 359.71
Hole Size (in)	Act Top (ftKB)	Act Blm (ftKB)	
17 1/2	155.0	760.0	
12 1/4	760.0	4,615.0	
8 3/4	4,615.0	18,709.0	

Multi-bowl, FMC on 8/19/2016 04:30

Sub-Type Multi-bowl	Install Date 8/19/2016				
Des	Make	Model	WP (psi)	Service	SN

Surface, Planned?-N, 750ftKB

Casing Description Surface	Wellbore Original Hole	Run Date 8/19/2016	Set Depth (MD) (ftKB) 750	Stick Up (ftKB) -35.7	Set Tension (kips)
Centralizers 7			Scratchers		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Blm Depth (MD) (ftKB)
1		13 3/8	12.615	54.50	J-55	13 3/8	ST&C	2.90	36	39
1	Casing Pup Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	4.13	39	43
16	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	661.19	43	704
1	Float Collar	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	1.38	704	705
1	Casing Joint	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	42.89	705	748
1	Float Shoe	13 3/8	12.615	54.50	J-55	13 3/8	ST&C	1.78	748	750

Intermediate Casing 1, Planned?-N, 4,605ftKB

Casing Description Intermediate Casing 1	Wellbore Original Hole	Run Date 9/8/2016	Set Depth (MD) (ftKB) 4,605	Stick Up (ftKB) -34.4	Set Tension (kips)
Centralizers 30			Scratchers		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Blm Depth (MD) (ftKB)
0	Casing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	0.00	34	34
0	Landing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	0.00	34	34
1	Hanger	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	2.44	34	37
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	4.20	37	41
108	Casing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	4,480.03	41	4,521
1	Float Collar	9 5/8	8.835			9 5/8	LT&C	1.49	4,521	4,523
2	Casing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	80.86	4,523	4,603
1	Float Shoe	9 5/8	8.835			9 5/8	LT&C	1.62	4,603	4,605

Production Casing, Planned?-N, 18,694ftKB

Casing Description Production Casing	Wellbore Original Hole	Run Date 9/29/2016	Set Depth (MD) (ftKB) 18,694	Stick Up (ftKB) 6.5	Set Tension (kips)
Centralizers 171			Scratchers		

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Blm Depth (MD) (ftKB)
1	Landing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	40.66	-7	34
1	Hanger	5 1/2	4.800	20.00	P-110		TXP-BTC	1.28	34	35
1	Hanger Pup	5 1/2	4.800	20.00	P-110		TXP-BTC	4.35	35	40
20	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	793.98	40	834
1	Pup Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	5.17	834	839
198	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	7,755.15	839	8,594
1	Marker Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	10.31	8,594	8,604
254	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	9,922.85	8,604	18,527
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.86	18,527	18,537



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 24 FED P23 004H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	RSI	5 1/2	4.800	20.00	P-110		TXP-BTC	6.66	18,537	18,544
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.87	18,544	18,554
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.17	18,554	18,593
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.67	18,593	18,602
1	Land Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.46	18,602	18,604
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	40.01	18,604	18,644
1	Float Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	2.42	18,644	18,646
1	XRV	5 1/2	4.800	20.00	P-110		TXP-BTC	2.22	18,646	18,649
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	42.42	18,649	18,691
1	Float Shoe	5 1/2	4.800	20.00	P-110		TXP-BTC	3.04	18,691	18,694

Intermediate Casing Cement, Casing, 9/8/2016 05:00

Cementing Start Date 9/8/2016	Cementing End Date 9/8/2016	Wellbore Original Hole
Evaluation Method Returns to Surface	Cement Evaluation Results 226 bbls of cement to surface	
Comment		

1, 32.6-4,605.0ftKB

Top Depth (ftKB) 32.6	Bottom Depth (ftKB) 4,605.0	Full Return? Y	Vol Cement Ret (bbl) 226.0	Top Plug? Y	Bottom Plug? N
Initial Pump Rate (bbl/min) 4.8	Final Pump Rate (bbl/min) 2.5	Avg Pump Rate (bbl/min) 6.5	Final Pump Pressure (psi) 1,179.0	Plug Bump Pressure (psi) 1,750.0	
Pipe Reciprocated? N	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated? N	Pipe RPM (rpm)	
Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date	

Spacer

Fluid Type Spacer	Fluid Description 30 bbl dyed spacer	Quantity (sacks)	Class	Volume Pumped (bbl) 30.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /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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Lead

Fluid Type Lead	Fluid Description 3% BWOB D020 + 5% BWOB D044 + 0.2% BWOB D046 + 10% BWOB D154	Quantity (sacks) 1,001	Class C	Volume Pumped (bbl) 453.0
Estimated Top (ftKB) 35.4	Estimated Bottom Depth (ftKB) 3,600.0	Percent Excess Pumped (%) 150.0	Yield (ft ³ /sack) 2.54	Fluid Mix Ratio (gal/sack) 13.86
Free Water (%)	Density (lb/gal) 11.90	Zero Gel Time (min)	Thickening Time (hr) 7.00	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc
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Tail

Fluid Type Tail	Fluid Description 0.01 gal/sk D177 Spike	Quantity (sacks) 426	Class C	Volume Pumped (bbl) 106.0
Estimated Top (ftKB) 3,600.0	Estimated Bottom Depth (ftKB) 4,605.0	Percent Excess Pumped (%) 85.0	Yield (ft ³ /sack) 1.33	Fluid Mix Ratio (gal/sack) 6.37
Free Water (%)	Density (lb/gal) 14.80	Zero Gel Time (min)	Thickening Time (hr) 3.50	1st Compressive Strength (psi)



Cement Summary

Intermediate Casing Cement

Well Name SALADO DRAW WE 24 FED P23 004H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Cement Fluid Additives

Add	Type	Conc
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Displacement

Fluid Type Displacement	Fluid Description Oil Based Mud	Quantity (sacks)	Class	Volume Pumped (bbl) 334.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal) 9.00	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc
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Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 24 FED P23 004H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Original Hole

Wellbore Name Original Hole	Directional Type Horizontal	Min Kick Off Depth (ftKB) 8,600.0	Vertical Section Direction (°) 359.71
Hole Size (in)	Act Top (ftKB)	Act Btm (ftKB)	
17 1/2	155.0	760.0	
12 1/4	760.0	4,615.0	
8 3/4	4,615.0	18,709.0	

Multi-bowl, FMC on 8/19/2016 04:30

Sub-Type Multi-bowl	Install Date 8/19/2016			
Des	Make	Model	WP (psi)	Service SN

Surface, Planned?-N, 750ftKB

Casing Description Surface	Wellbore Original Hole	Run Date 8/19/2016	Set Depth (MD) (ftKB) 750	Suck Up (ftKB) -35.7	Set Tension (kips)
Centralizers 7	Scratchers				

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Wellhead	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	2.90	36	39
1	Casing Pup Joint	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	4.13	39	43
16	Casing Joint	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	661.19	43	704
1	Float Collar	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	1.38	704	705
1	Casing Joint	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	42.89	705	748
1	Float Shoe	13 3/8	12 615	54.50	J-55	13 3/8	ST&C	1.78	748	750

Intermediate Casing 1, Planned?-N, 4,605ftKB

Casing Description Intermediate Casing 1	Wellbore Original Hole	Run Date 9/8/2016	Set Depth (MD) (ftKB) 4,605	Suck Up (ftKB) -34.4	Set Tension (kips)
Centralizers 30	Scratchers				

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
1	Casing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	0.00	34	34
1	Landing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	0.00	34	34
1	Hanger	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	2.44	34	37
1	Casing Pup Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	4.20	37	41
108	Casing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	4,480.03	41	4,521
1	Float Collar	9 5/8	8.835			9 5/8	LT&C	1.49	4,521	4,523
2	Casing Joint	9 5/8	8.835	40.00	HCK-55	9 5/8	LT&C	80.86	4,523	4,603
1	Float Shoe	9 5/8	8.835			9 5/8	LT&C	1.62	4,603	4,605

Production Casing, Planned?-N, 18,694ftKB

Casing Description Production Casing	Wellbore Original Hole	Run Date 9/29/2016	Set Depth (MD) (ftKB) 18,694	Suck Up (ftKB) -35.7	Set Tension (kips)
Centralizers 170	Scratchers				

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)
24	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	0.00	36	36
1	Hanger	5 1/2	4.800	20.00	P-110		TXP-BTC	1.28	36	37
1	Hanger Pup	5 1/2	4.800	20.00	P-110		TXP-BTC	4.35	37	41
20	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	793.98	41	835
1	Pup Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	5.14	835	840
198	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	7,755.15	840	8,596
1	Marker Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	10.28	8,596	8,606
254	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	9,921.27	8,606	18,527
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.86	18,527	18,537



Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 24 FED P23 004H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Conn Sz (in)	Top Thread	Len (ft)	Top Depth (MD) (ftKB)	Btn Depth (MD) (ftKB)
1	RSI	5 1/2	4.800	20.00	P-110		TXP-BTC	6.66	18,537	18,544
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.87	18,544	18,554
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	39.17	18,554	18,593
1	Pup Jt	5 1/2	4.800	20.00	P-110		TXP-BTC	9.67	18,593	18,602
1	Land Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	1.46	18,602	18,604
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	40.01	18,604	18,644
1	Float Collar	5 1/2	4.800	20.00	P-110		TXP-BTC	2.42	18,644	18,646
1	XRVI	5 1/2	4.800	20.00	P-110		TXP-BTC	2.22	18,646	18,649
1	Casing Joint	5 1/2	4.800	20.00	P-110		TXP-BTC	42.42	18,649	18,691
1	Float Shoe	5 1/2	4.800	20.00	P-110		TXP-BTC	3.04	18,691	18,694

Production Casing Cement, Casing, 9/30/2016 07:00

Cementing Start Date 9/30/2016	Cementing End Date 9/30/2016	Wellbore Original Hole
Evaluation Method Lift Pressure	Cement Evaluation Results 1650 FCP at 4 bpm	
Comment		

1, 2,901.0-18,709.0ftKB

Top Depth (ftKB) 2,901.0	Bottom Depth (ftKB) 18,709.0	Full Return? N	Vol Cement Ret (bbl) 0.0	Top Plug? Y	Bottom Plug? Y
Initial Pump Rate (bbl/min) 4.2	Final Pump Rate (bbl/min) 4	Avg Pump Rate (bbl/min) 6.5	Final Pump Pressure (psi) 1,650.0	Plug Bump Pressure (psi) 2,200.0	
Pipe Reciprocated? N	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated? N	Pipe RPM (rpm)	
Depth Tagged (MD) (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date	

Spacer

Fluid Type Spacer	Fluid Description 50 bbl MPE 114 bbl MRF	Quantity (sacks)	Class	Volume Pumped (bbl) 164.0
Estimated Top (ftKB) 0.0	Estimated Bottom Depth (ftKB) 2,901.0	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type Lead	Fluid Description Lead 1 spiked 0.5/10 bbl D177 and CemNet added - 301 bbl, 621 sx, 11.5 ppg	Quantity (sacks) 621	Class H	Volume Pumped (bbl) 301.0
Estimated Top (ftKB) 2,901.0	Estimated Bottom Depth (ftKB) 49,558.0	Percent Excess Pumped (%) 50.0	Yield (ft ³ /sack) 2.72	Fluid Mix Ratio (gal/sack) 15.89
Free Water (%)	Density (lb/gal) 11.50	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc

Lead

Fluid Type Lead	Fluid Description Lead 2 spiked 0.5/10 bbl D177 - 575 bbl, 1993 sx, 12.5 ppg	Quantity (sacks) 1,993	Class H	Volume Pumped (bbl) 575.0
Estimated Top (ftKB) 49,558.0	Estimated Bottom Depth (ftKB) 17,738.0	Percent Excess Pumped (%) 35.0	Yield (ft ³ /sack) 1.62	Fluid Mix Ratio (gal/sack) 8.48
Free Water (%)	Density (lb/gal) 12.50	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)



Cement Summary

Production Casing Cement

Well Name SALADO DRAW WE 24 FED P23 004H	Lease	Field Name JENNINGS	Business Unit Mid-Continent
Ground Elevation (ft)	Original RKB (ft)	Current RKB Elevation	Mud Line Elevation (ft) Water Depth (ft)

Cement Fluid Additives

Add	Type	Conc
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Tail

Fluid Type Tail	Fluid Description Tail - 43 bbl, 111 sx, 15 ppg	Quantity (sacks) 111	Class H	Volume Pumped (bbl) 43.0
Estimated Top (ftKB) 17,738.0	Estimated Bottom Depth (ftKB) 18,709.0	Percent Excess Pumped (%) 0.0	Yield (ft ³ /sack) 2.18	Fluid Mix Ratio (gal/sack) 9.56
Free Water (%)	Density (lb/gal) 15.00	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc
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Displacement

Fluid Type Displacement	Fluid Description 411 bbl fresh water	Quantity (sacks)	Class	Volume Pumped (bbl) 411.0
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft ³ /sack)	Fluid Mix Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Zero Gel Time (min)	Thickening Time (hr)	1st Compressive Strength (psi)

Cement Fluid Additives

Add	Type	Conc
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