

HALLIBURTON

iCem[®] Service

BONANZA CREEK ENERGY-EBUS

State Pronghorn Federal K-0-31HNB Production

Job Date: Thursday, December 23, 2021

Sincerely,

Meghan Van Zyl

Legal Notice

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **State Pronghorn Fed K-O-31HNB cement Production** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Approximately 45 bbls of cement were returned to surface.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton Fort Lupton

Sold To #: 369404	Ship To #: 9059007	Quote #:	Sales Order #: 0907582717
Customer: CIVITAS		Customer Rep: Josh Johnson	
Well Name: STATE PRONGHORN FEDERAL	Well #: K-O-31HNB	API/UWI #: 05-123-51320-00	
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO
Legal Description: 30-5N-61W-2093FSL-672FWL			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 345	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Michael Loughran	

Job

Formation Name		Formation Depth (MD)	Top		Bottom	
Form Type		Job depth MD	11790ft		Job Depth TVD	
Water Depth		Perforation Depth (MD)	From		To	

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36			0	1607	0	1607
Casing		5.5	4.892	17			0	11790	0	6130
Open Hole Section			7.875				1607	11805	1607	6130

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	INNOVEX
Float Shoe	5.5			11790	Bottom Plug	5.5	1	INNOVEX
Float Collar	5.5			11784.9	SSR plug set	5.5		
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5		

Fluid Data

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Tuned Prime	TUNED PRIME CEMENT SPACER SYS	50	bbl	11.5	3.73		5	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
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2	Cap	SBM CEM ELASTICEM™ SYS	525	sack	13	1.66		8	8.29
0.33 %		SCR-100, 1200 LB BAG - (1126328)							
8.29 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
3	FDP-C1371 SYS	SBM CEM FDP-C1371 SYS	430	sack	13	1.55		8	7.21
7.21 Gal		FRESH WATER							
5 %		CHANNELFIX, 44 LB BAG - (1107429)							
0.25 %		SCR-100, 1200 LB BAG - (1126328)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	ElastiCem	SBM CEM ELASTICEM™ SYS	575	sack	13.2	1.59		8	7.76
0.65 %		HR-5, 50 LB SK (100005050)							
7.76 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
5	Displacement	Displacement	260.4	bbl	8.33			8	
Cement Left In Pipe									
Amount		5 ft			Reason			Shoe Joint	
Mix Water:		pH 6		Mix Water Chloride:		Less 200 ppm		Mix Water Temperature: 55°F	
Cement Temperature:				Plug Displaced by:		8.33 lb/gal		Disp. Temperature:	
Plug Bumped?		Yes		Bump Pressure:		3025 psi		Floats Held? Yes	
Cement Returns:				Returns Density:				Returns Temperature:	
Comment Approx 45 bbls cap cement to surface									

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq No.	Activity	Graph Label	Date	Time	Dwnhole Density (ppg)	Cmb Pump Rate (bbl/min)	Pump A Pressure (psi)	Cmb Stg Total (bbl)	Comments
1	Depart Yard Safety Meeting	Pre-Convoy Safety Meeting	12/22/2021	21:00:00					CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
2	Crew Leave Yard	Crew Leave Yard	12/22/2021	21:30:00					CREW LEAVES YARD
3	Call Out	Call Out	12/23/2021	01:30:00					CREW CALLED OUT AT 0130 HRS. REQUESTED ON LOCATION 0730 HRS. 12/23/2021
4	Arrive At Loc	Arrive At Loc	12/23/2021	05:00:00					MEET WITH CO. MAN TO DISCUSS JOB. 20# P-110 11790', TD 11805', TVD 6130', F/C 11784.9', 9.625" 36# 1607', HOLE 8.5", MUD 9.2#, MAX PRESSURE 3000 PSI, WATER 60 DEGREES, PH7, CHLORIDES LESS 200 PPM.
5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	12/23/2021	10:00:00	-1.11	0.00	22.60	1.63	HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
6	Rig-Up Equipment	Rig-Up Equipment	12/23/2021	10:05:00	-1.11	0.00	23.57	1.63	CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON AND WATER HOSES TO PERFORM JOB.
7	Start Job	Start Job	12/23/2021	11:21:50	8.59	0.00	0.70	18.41	
8	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/23/2021	11:30:00	8.61	0.00	4.85	18.41	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.

9	Start Job	Start Job	12/23/2021	12:04:25	8.65	0.00	12.36	18.41	BEGIN RECORDING DATA
10	Drop Bottom Plug	Drop Bottom Plug	12/23/2021	12:05:00	8.36	0.00	15.41	0.00	BOTTOM PLUG VERIFIED BY JOSH
11	Test Lines	Test Lines	12/23/2021	12:07:17	8.67	0.00	193.53	1.97	TEST HES LINES TO 5000 PSI
12	Pump Spacer 1	Pump Spacer 1	12/23/2021	12:11:55	10.31	0.00	27.79	0.00	50 BBLs TUNED PRIME SPACER. 11.5 PPG, 3.73 YIELD, 23.63 GAL/SACK
13	Pump Cap Cement	Pump Cap Cement	12/23/2021	12:20:31	12.76	5.96	353.40	45.94	525 SACKS SBMCEM ELASTICEM CAP CEMENT. 155.21 BBLs. 13 PPG, 1.66 YIELD, 8.29 GAL/SACK TOCC=0'
14	Pump Lead Cement	Pump Lead Cement	12/23/2021	12:39:13	12.80	8.24	262.83	0.07	430 SACKS FDP-C1371 SYS SBMCEM LEAD CEMENT. 118.70 BBLs. 1.55 YIELD. 7.21 GAL/SACK. ESTIMATED TOLC=2682'
15	Pump Tail Cement	Pump Tail Cement	12/23/2021	12:53:24	12.76	8.29	368.11	0.07	575 SACKS SBMCEM ELASTICEM TAIL CEMENT. 162.83 BBLs. 1.59 YIELD, 7.76 GAL/SACK. ESTIMATED TOTC=6524'
16	Shutdown	Shutdown	12/23/2021	13:17:27	13.64	0.00	51.58	171.30	SHUTDOWN. USED 60 GALLONS D-AIR TOTAL JOB
17	Clean Lines	Clean Lines	12/23/2021	13:21:05	13.46	0.00	44.94	0.00	CLEAN PUMPS AND LINES
18	Shutdown	Shutdown	12/23/2021	13:28:20	7.41	1.05	83.68	22.61	SHUTDOWN
19	Drop Top Plug	Drop Top Plug	12/23/2021	13:29:28	7.39	0.00	26.07	0.00	TOP PLUG VERIFIED BY JOSH
20	Pump Displacement	Pump Displacement	12/23/2021	13:30:07	7.40	0.00	25.09	0.00	260.4 BBLs FRESH WATER DISPLACEMENT. 5 GALLONS MICRO MATRIX CEMENT RETARDER IN FIRST 10 BBLs.
21	Bump Plug	Bump Plug	12/23/2021	14:00:32	7.67	4.20	2288.98	258.64	FCP 2400 PSI / 4 BPM. BUMP 3025 PSI. APPROX 45 BBLs CEMENT TO SURFACE
22	Check Floats	Check Floats	12/23/2021	14:04:24	7.53	0.00	142.14	260.66	FLOATS HOLD. 2.5 BBLs. BACK

23	End Job	End Job	12/23/2021	14:04:51	7.52	0.00	41.52	260.66	STOP RECORDING DATA
24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	12/23/2021	14:10:00					DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
25	Rig-Down Equipment	Rig-Down Equipment	12/23/2021	14:15:00					RIG DOWN BULK AND MIXING EQUIPMENT
26	Rig-Down Completed	Rig-Down Completed	12/23/2021	15:30:00					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
27	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	12/23/2021	15:55:00					CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
28	Crew Leave Location	Crew Leave Location	12/23/2021	16:00:00					THANK YOU FOR USING HALLIBURTON – MIKE LOUGHRAN AND CREW.

3.0 Attachments

3.1 Real Time iCem Job Chart

