

HALLIBURTON

iCem® Service

BONANZA CREEK ENERGY-EBUS

State Antelope 44-14-3HN Production

Job Date: Friday, October 21, 2022

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 Antelope 44-14-3HN** 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 50 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 #: 324725	Ship To #: 9127072	Quote #:	Sales Order #: 0908184892
Customer: BONANZA CREEK ENERGY-EBUS		Customer Rep: Josh Klisen	
Well Name: STATE ANTELOPE		Well #: 44-14-3HN	API/UWI #: 05-123-51730-00
Field:	City (SAP): GILL	County/Parish: WELD	State: COLORADO
Legal Description: 02-5N-62W			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 345	
Job BOM: 7523 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Brandon Parker	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	11718ft	Job Depth TVD	6308
Water Depth		Wk Ht Above Floor	4
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	1614	0	
Casing	0	5.5	4.778	20			0	11708	0	
Open Hole Section			8.5				1614	11718	1614	6308

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	citadel
Float Shoe	5.5	1	citadel	11708	Bottom Plug	5.5	1	citadel
Float Collar	5.5	1	citadel	11703	SSR plug set	5.5		HES
Insert Float	5.5				Plug Container	5.5	1	HES
Stage Tool	5.5				Centralizers	5.5	213	scepter

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	3.74	23.65	6	1775

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
2	Cap	SBM CEM ELASTICEM™ SYS	415	sack	13	1.66	8.3	9	3445
3	IsoBond Lead Cement	SBM CEM FDP-C1371 SYS	820	sack	13	1.55	7.14	9	5855
4	ElastiCem	SBM CEM ELASTICEM™ SYS	665	sack	13.2	1.59	7.78	9	5174
5	Displacement	Displacement	260	bbl	8.33			10	10912
Comment 647bbbls mix water total used.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq No.	Activity	Date	Time	Dwnhole Density (ppg)	Cmb Pump Rate (bbl/min)	Pump A Pressure (psi)	Cmb Stg Total (bbl)	Comments
1	Call Out	10/21/2022	10:30:00					crew called out to 5.5" production casing with an on location time 17:30 for Civitas Resources
2	Pre-Convoy Safety Meeting	10/21/2022	13:55:00					meeting with crew to discuss safety/hazards associated with traveling
3	Depart from Service Center or Other Site	10/21/2022	14:00:00					convoy to location
4	Arrive at Location from Service Center	10/21/2022	15:45:00					met with Mr. Frank with Civitas and went over job numbers, water sources, cmt volumes and iron placement
5	Assessment Of Location Safety Meeting	10/21/2022	15:46:00					hazard hunt, check location, bulk and water volumes,. td 11718, tp 11708, sj 5', fc 11703, sp 1614, surface casing 9.625 36#, production casing 5.5" 20#, wf 9ppg, tvd 6308, eob6487, kop 6390, 213 cnt, Citadel top/bottom plugs and fe
6	Safety Meeting - Pre Rig-Up	10/21/2022	16:10:00					meeting with hes personnel to discuss safety/hazards associated with rigging up
7	Rig-Up Equipment	10/21/2022	16:15:00					rig up iron to red zone, water and bulk
8	Casing on Bottom	10/21/2022	16:50:00					rig landed casing . TRK casing company
9	Rig-Up Equipment	10/21/2022	17:02:00					stab hes plug container so rig could begin circulating

10	Circulate Well	10/21/2022	17:07:00					start circulation, pumped at 10bpm, psi 915 and pumped 7000 strokes
11	Pre-Job Safety Meeting	10/21/2022	17:50:00	8.30	0.00	3.99	0.00	meeting with all personnel on location to discuss safety/hazards associated with job, also covered job procedures. all personnel signed jsa
12	Break Circulation	10/21/2022	17:57:00	8.31	0.00	4.37	0.00	ko rig pumps, rig hes iron
13	Drop Bottom Plug	10/21/2022	18:03:39	7.58	0.00	9.67	0.00	bottom plug pre loaded prior to starting cmt job. plug loaded by Sam Mares with Civitas
14	Pump Water	10/21/2022	18:04:10	8.26	0.74	10.47	0.01	pumped 3bbbls at 3bpm top psi was 220
15	Test Lines	10/21/2022	18:06:09	8.21	0.19	49.17	0.00	test eko, 5th gear stall and high psi test 5647. psi held solid
16	Pump Spacer 1	10/21/2022	18:17:40	8.29	0.00	21.95	0.00	pumped 50bbbls of tuned prime, 11.5ppg, 3.74 yield, 23.65 gal/sk pumped at 7bpm and average psi was 200. weight confirmed using pressurized mud scales. calculated all 50bbbls of spacer to surface
17	Check Weight	10/21/2022	18:22:05	11.61	6.87	274.24	19.68	
18	Pump Cement	10/21/2022	18:25:44	11.62	5.42	105.16	44.23	pumped 122.7bbbls of cap cement, 415sks, 13ppg, 1.66 yield, 8.3 gal/sk pumped at 9bpm and average psi was 500. weight confirmed using pressurized mud scales. set time at 70bc 6:30hrs. calculated 48bbbls of cap cmt to surface, 74.6bbbls left inside surface casing. MW 3445
19	Check Weight	10/21/2022	18:31:28	12.88	9.01	433.71	46.06	
20	Check Weight	10/21/2022	18:33:57	13.00	9.05	494.77	68.78	
21	Other	10/21/2022	18:39:26	12.97	9.28	466.38	125.06	slow rate to assure cap silo was mt
22	Pump Lead Cement	10/21/2022	18:40:29	12.99	7.62	350.53	132.93	pumped 226.4bbbls of latex cmt, 820sks, 13ppg, 1.55 yield, 7.14gal/sk pumped at 9bpm and average psi was 730. weight

confirmed using pressurized mud scales. set time at 70bc
 5:02hrs. calculated top of lead cmt at 1557.63ft. MW 5855

23	Check Weight	10/21/2022	18:42:28	13.03	9.33	699.88	17.57	
24	Slow Rate	10/21/2022	19:05:14	13.04	9.36	703.60	231.08	slow rate to assure lead silo was mt
25	Pump Tail Cement	10/21/2022	19:05:54	12.89	6.82	376.03	0.57	pumped 188.3bbls of tail cmt, 665sks, 13.2ppg, 1.59 yield, 7.78 gal/sk pumped at 9bpm and average psi was 540. weight confirmed using pressurized mud scales. set time at 70bc is 4:25hrs. calculated top of tail cmt at 7095.5ft. MW 5174
26	Check Weight	10/21/2022	19:08:05	13.24	9.39	551.17	20.69	
27	Slow Rate	10/21/2022	19:25:22	13.25	7.92	577.17	182.92	slow rate to assure tail silo was mt and also to maintain density
28	Shutdown	10/21/2022	19:28:24	13.25	3.87	176.52	198.24	done pumping cmt.
29	Clean Lines	10/21/2022	19:31:18	13.52	1.69	18.67	0.03	closed three valves on hes manifold to well. cleaned lines and pump to 4sided tank below rig stairs. pumped 19bbls to clean lines and pump
30	Shutdown	10/21/2022	19:37:46	7.86	0.83	37.68	0.05	offline
31	Drop Top Plug	10/21/2022	19:38:59	8.34	0.00	10.53	0.00	top plug pre loaded while hes was washing lines and pumps. loaded by Civitas company rep Sam Mares and witnessed by HES supervisor
32	Pump Displacement	10/21/2022	19:39:10	8.30	1.80	31.39	0.03	calculated disp. fc st at 11703ft x .0222 =259.8bbls. 10 gallons mmcr in the first 20bbls of displacement
33	Other	10/21/2022	19:40:50	8.45	11.22	1256.22	15.73	caught cmt
34	Slow Rate	10/21/2022	20:02:42	8.60	5.38	2652.30	246.97	slow rate at 240bbls, 10bpm 2800psi to 4bpm, 2130psi

35	Bump Plug	10/21/2022	20:06:47	8.56	0.39	2691.88	263.11	plug bumped at calculated volumes of 259.8bbls, psi 2150 and ko pumps at 2650, psi climbed to 3062 and held solid
36	Check Floats	10/21/2022	20:08:25	8.62	0.00	3037.47	0.00	citadel floats held 3bbls back to the pump truck
37	End Job	10/21/2022	20:09:51	8.00	0.00	2.93	0.00	cmt job complete
38	Resume	10/21/2022	20:22:37	8.39	0.00	47.72	0.00	clean hes hts
39	Pump Water	10/21/2022	20:28:00	8.45	1.70	11.88	0.03	pumped 50bbls to flush stack/used 100lbs sugar
40	End Job	10/21/2022	20:37:06	0.38	0.00	11.60	0.00	
41	Spacer Returns to Surface	10/21/2022	20:38:00	0.02	0.00	8.95	0.00	rig took back 50bbls of tuned prime spacer
42	Cement Returns to Surface	10/21/2022	20:39:00					rig took back 50bbls of cap cmt
43	Pre-Rig Down Safety Meeting	10/21/2022	20:41:00					meeting to discuss safety/hazards associated with rigging down
44	Rig-Down Equipment	10/21/2022	20:45:00					
45	Depart Location for Service Center or Other Site	10/21/2022	21:30:00					
46	Other	10/21/2022	21:31:00					Thank You for Choosing Halliburton Cement. Parker and Crew. (970)397-4969

3.0 Attachments

3.1 Real Time iCem Job Chart

