

HALLIBURTON

iCem[®] Service

CIVITAS RESOURCES-EBUS

Ft. Lupton District, CO

For: Frank Kenny & Josh Kliesen

Date: Sunday, February 11, 2024

State Seventy

WELD

CIVITAS State Seventy Y-E-10HNXR

Job Date: Sunday, February 11, 2024

SO

Sincerely,

William Mix

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 Seventy / Y-E-10HNXR 5.5 CMT Production**. 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.

This space is provided to enter in a brief summary of the job. Below are some important items to discuss:

- **Quality of circulation – Prejob 95% , While pumping Cement 95%, While Pumping Displacement 95%**
- **Final Circulating Pressure and Pump Rate FCP – 2450PSI / 4BPM**
- **Returns to Surface 35BBLs CMT**
- **Any deviation from plan NO**
- **Abnormalities on job chart NO**

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 Rockies Cement Team

1.2 Job Overview

Job Details	
API #:	05-123-52193
City, County:	Kersey, WELD
SO#:	909141541

Job Times		
	Date (mm/dd/yyyy)	Time (hh:mm)
Requested Time On Location:	2/11/24	10:30
Called Out Time:	2/11/24	0430
Arrived On Location:	2/11/24	1030
Job Started:	2/11/24	1542
Job Completed:	2/11/24	19:50
Departed Location:	2/11/24	2100

	Description	Units	Value
1	Surface temperature at the time of the job	degree F	60
2	Mud type (OBM, WBM, Synthetic, Water, Brine)	-	OBM
3	Mud density	ppg	9.1
4	Casing set depth (shoe)	ft	18,704
5	TVD	ft	6,240
6	Float collar depth	ft	18,699
7	Length of rate hole	ft	10
8	Previous casing shoe depth	ft	1697
9	Pre-job mud circulation time	hh:mm	2:00
10	Pre-job mud circulation rate	bpm	10

11	Pre-job mud circulation volume	bbls	600
12	Mud circulation pressure at start of cement	psi	150
13	Annual flow before the start of job	Y/N	YES
14	Pipe movement during cement job	Y/N	NO
15	Calculated displacement	bbls	415
16	Job displaced by	Rig/HES	HES
17	Estimated returns % during job	%	95
18	Fluid returns to surface	Spacer/Cement, bbls	35 CMT
19	Final circulation pressure, rate prior to plug bump	psi @ bpm	2450
20	Number of Centralizers	-	
21	Number of bottom plugs	-	1
22	Number of trucks used preparing/during job	-	12
23	Add hours? If Yes, put #	Y/N and hours	NO
24	NPT? If Yes, put #	Y/N and hours	NO

1.3 Water Field Test

	Recorded Value	Unit	Acceptable Limit	Potential Problems if Values Exceed the Limit
pH	7		6.0 - 8.0	Chemicals in water can cause severe retardation
Temperature	65	F	60 - 80 F	Can can pre-mature setting of cement
Chlorides	800	ppm	3000 ppm	Can shorten thickening time

1.4 Actual Pump Schedule

Stage 1

	Density (ppg)	Volume (bbls)	Yield (ft ³ /sk)	Water Requirement (gal/sk)	Bulk Sacks (sks)	Total Water (gals)
Spacer Fluid	11.5	120	2.57	16.2		4247
Cap Cement	13	124.8	1.65	8.07	425	3420
Lead Cement	13	296.8	1.58	7.42	1055	7828
Tail Cement	13.2	415.2	1.57	7.53	1485	11182
Top Plug	1					
Displacement Fluid	8.33					

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq No.	Activity	Graph Label	Date	Time	Pump A Pressur e (psi)	Dwnhol e Density (ppg)	Cmb Pump Rate (bbl/mi n)	Cmb Stg Total (bbl)	Comments
Event	1	Call Out	Call Out	2/11/2024	04:30:00					Call out
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/11/2024	08:30:00					Pre-Convoy Safety Meeting
Event	3	Crew Leave Yard	Crew Leave Yard	2/11/2024	08:55:00					Crew Leave Yard
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	2/11/2024	10:30:00					Arrive at Location from Service Center
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/11/2024	13:00:00					Pre-Rig Up Safety Meeting, Be aware of your surroundings, Use two spotters one in front and one in back of vehicle, Utilize hearing protection, Have good communication and make sure Line of Fire is clear before swinging hammer

Identify points were
hand/finger can get
crushed

Event	6	Rig-Up Equipment	Rig-Up Equipment	2/11/2024	13:10:00					Rig Up equipment as far as possible, Rig running casing
Event	7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	2/11/2024	15:15:00	3.90	0.00	0.00	0.00	Safety Meeting-Pre job, Eyes on task Use impact gloves Have good communication to identify pinch points between steel hoses, iron and drill pipe and while making up the hammer unions. Identify points were hand/finger can get crushed
Event	8	Start Job	Start Job	2/11/2024	15:41:41	-1.68	8.33	0.00	18.78	Begin recording.
Event	9	Test Lines	Test Lines	2/11/2024	15:45:26	135.11	8.30	0.00	3.29	Filled lines with 3BBLS of water and pressure tested HES lines to 5500PSI.
Event	10	Pump Spacer 1	Pump Spacer 1	2/11/2024	15:54:10	142.75	8.32	0.00	0.00	Pumped 120BBLS of 11.5PPG Tuned Prime

										Spacer. Pumped at a rate of 6BPM with a pressure of 180PSI.
										Pumped 425s / 124.892BBLs of 13PPG Elasticem Cap cement. Pumped at a rate of 7.5BPM with a pressure of 590PSI. Pre job calculated 61.826BBLs of cap to surface.
Event	11	Pump Cap Cement	Pump Cap Cement	2/11/2024	16:24:35	14.89	11.70	0.65	0.01	
										Pumped 1055s / 296.874BBLs of 13PPG Isobond lead cement. Pumped at a rate of 7BPM with a pressure of 540PSI. Pre job calculated TOL cement was at 1250.447FT.
Event	12	Pump Lead Cement	Pump Lead Cement	2/11/2024	16:44:20	514.88	13.10	7.56	0.13	
										Pumped 1485s / 415.231BBLs of 13.2PPG Elasticem Tail cement. Pumped at a rate of 7.5BPM with a pressure of 670PSI. Pre job calculated TOT cement was at 8526.77Ft
Event	13	Pump Tail Cement	Pump Tail Cement	2/11/2024	17:30:06	511.25	13.18	6.98	0.12	

Event	14	Drop Top Plug	Drop Top Plug	2/11/2024	18:41:12	6.16	7.57	0.00	478.83	Shut down to drop top plug with Josh & Frank. At this time we also washed pumps and lines with 20BBLs of fresh water.
Event	15	Pump Displacement	Pump Displacement	2/11/2024	18:41:21	1.39	7.53	0.00	0.00	Pumped 415BBLs of freshwater displacement. 20 gallons of MMCR in the first 20BBLs of displacement. The rest of displacement was pumped with biocide.
Event	16	Bump Plug	Bump Plug	2/11/2024	19:28:41	3027.62	7.85	0.00	408.85	Plug bumped. FCP - 2450PSI. BMP pressure - 3150PSI. Held for 5 minutes then released pressure. 4.5BBLs back from floats.
Event	17	End Job	End Job	2/11/2024	19:53:13	163.30	7.68	7.18	444.10	End Job. Finish Recording.
Event	18	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/11/2024	20:20:00					Pre-Rig Down Safety Meeting
Event	19	Rig-Down Equipment	Rig-Down Equipment	2/11/2024	20:30:00					Rig-Down Equipment
Event	20	Depart Location Safety Meeting	Depart Location Safety Meeting	2/11/2024	21:00:00					Depart Location Safety Meeting, Verify all equipment has been

thoroughly pre-tripped. All safety and quality issues should be resolved before proceeding.

Event	21	Crew Leave Location	Crew Leave Location	2/11/2024	21:30:00	Crew leave location
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3.0 Attachments

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