

HALLIBURTON

iCem® Service

CRESTONE PEAK RESOURCES-EBUS

Ft. Lupton District, Colorado

For: Josh Klesion

Date: Sunday, April 02, 2023

Cosslett East 1A

Weld, Cosslett East

Stage 1

Job Date: Sunday, April 02, 2023

Sincerely,

Luke Kosakewich

Legal Notice

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Table of Contents

Cementing Job Summary	4
Executive Summary	4
Job Overview	5
Water Field Test	7
Actual Pump Schedule	7
Real-Time Job Summary	8
Job Event Log	8
Attachments.....	14
Civitas, Cosslett East FED 1A 22H-H168, Surface .png.....	14

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Well Name and Number - Job Type**. 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 XX 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 Rockies Cement Team

1.2 Job Overview

Job Details	
API #:	05-123-51945
City, County:	Weld
Field:	WATTENBERG
Legal Description:	SENE S22 T1N R68W

Job Times		
	Date (mm/dd/yyyy)	Time (hh:mm)
Requested Time on Location:	04/02/2023	11:00
Called Out Time:	04/02/2023	06:00
Arrived On Location:	04/02/2023	10:00:00
Job Started:	04/02/2023	16:22
Job Completed:	04/02/2023	17:33
Departed Location:	04/02/2023	18:30

	Description	Units	Value
1	Surface temperature at the time of the job	degree F	50
2	Mud type (OBM, WBM, Synthetic, Water, Brine)	-	Water
3	Mud density	ppg	8.8
4	Casing set depth (shoe)	ft	2645'
5	TVD	ft	2645'
6	Float collar depth	ft	2600'
7	Length of rate hole	ft	10'
8	Previous casing shoe depth	ft	589'
9	Pre-job mud circulation time	hh:mm	00:30

10	Pre-job mud circulation rate	bpm	10
11	Pre-job mud circulation volume	bbls	160
12	Mud circulation pressure at start of cement	psi	350
13	Annual flow before the start of job	Y/N	No
14	Pipe movement during cement job	Y/N	No
15	Calculated displacement	bbls	197.13
16	Job displaced by	Rig/HES	HES
17	Estimated returns % during job	%	99%
18	Fluid returns to surface	Spacer/Cement, bbls	20 bbls/ 20 bbls
19	Final circulation pressure, rate prior to plug bump	psi @ bpm	900 @ 7.5
20	Number of Centralizers	-	23
21	Number of bottom plugs	-	1

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	50	F	60 - 80 F	Can pre-mature setting of cement
Chlorides	0	ppm	3000 ppm	Can shorten thickening time

1.4 Actual Pump Schedule

	Density (ppg)	Volume (bbls)	Yield (ft ³ /sk)	Water Requirement (gal/sk)	Bulk Sacks (sks)	Total Water (gals)
Spacer Fluid	8.33	20				
Cement	14.2	176.68	1.55	7.83	640	5,011.2
Displacement Fluid	8.33	197.13				8,279.5

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq No.	Activity	Graph Label	Date	Time	Source	Pump A Pressure (psi)	Dwnhole Density (ppg)	Cmb Pump Rate (bbl/mi n)	Cmb Stg Total (bbl)	Comments
Event	1	Call Out	Call Out	4/2/2023	06:00:00	USER					Cement crew "Luke Kosakewich, Jared Camper, and Kenny Rojas" were called out for O/L time of 11:00 am. for the cement job.
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	4/2/2023	09:15:00	USER					Crew mobilized all resources and performed all pre job checks and held a convoy safety meeting. Discussed the safest route of travel and being compliant and fit to drive.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	4/2/2023	09:30:00	USER					Crew left the yard and headed on route to location.

Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	4/2/2023	10:00:00	USER	Signed in at the entrance and safety shack once on location.
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	4/2/2023	10:10:00	USER	Performed a site assessment and hazard hunt.
Event	6	Discuss Job	Discuss Job	4/2/2023	10:20:00	USER	Check in with the Company Man and discussed the job processes and well bore schematics. CSG 9.625" 40# set at 2644.5', OH: 12.25" at 2654.5', PC: 13.375" 54.5# cement shoe 589', MD: 2,654.5', TP: 2,644.5', FC: 2,600' Displacement: 197.13 bbls ,
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/2/2023	10:25:00	USER	Held a JSA with HES crew about rigging up safety. Set the expectations for SQ and designated roles and responsibilities.
Event	8	Rig-Up Equipment	Rig-Up Equipment	4/2/2023	10:35:00	USER	Crew rigged up all line, hoses, pump trucks, bulk vessels, and high-pressure discharge iron.

Event	9	Prime Pumps	Prime Pumps	4/2/2023	15:00:00	USER	11.94	-1.19	0.00	0.03	Primed up the elite pumps with fresh water and double checked completed all pre job checks.
Event	10	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/2/2023	15:40:00	USER	11.66	-1.14	0.00	0.03	Crew held a pre rig down safety meeting.
Event	11	Rig-Down Equipment	Rig-Down Equipment	4/2/2023	15:45:00	USER	11.35	-1.13	0.00	0.03	Crew rigged down iron and stowed away all tool, iron, and equipment.
Event	12	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/2/2023	16:00:00	USER	8.29	8.19	0.00	27.10	Held a safety meeting with all HES and involved third party personnel.
Event	13	Start Job	Start Job	4/2/2023	16:22:57	NONE	8.25	8.20	0.00	0.00	Pumped 3 bbls of fresh water to fill lines with 6X5. shut down 3 bbls away.
Event	14	Pressure Test	Pressure Test	4/2/2023	16:25:56	USER	23.52	8.11	0.00	2.22	Pressure tested lines to 2,000 psi. Pressured up to 2,400 psi and held pressure for 2 mins. Pressure held. Bled of pressure.
Event	15	Pump Spacer 1	Pump Spacer 1	4/2/2023	16:28:25	NONE	51.28	8.13	0.00	0.00	Pumped 20 bbls of freshwater spacer at 3.5 bbls per minute. Pressure was 70 psi.

Event	16	Check Weight	Check Weight	4/2/2023	16:31:11	NONE	44.55	8.02	2.99	7.56	Cement weighed up at 14.2 ppg. Density was verified by pressurized scales.
Event	17	Pump Cement	Pump Cement	4/2/2023	16:34:39	NONE	86.24	8.32	4.18	0.03	Pumped 176 bbls of SwiftCem at 14.2 ppg, yield 1.55 cu/ft, water requirement 7.83 gal/sks at 7 bbls/min with pressure at 370 psi.
Event	18	Check Weight	Check Weight	4/2/2023	16:41:25	NONE	357.67	14.24	7.69	48.98	Cement weighed up at 14.2 ppg. Density was verified by pressurized scales.
Event	19	Check Weight	Check Weight	4/2/2023	16:44:55	NONE	370.37	14.25	7.74	76.06	Cement weighed up at 14.2 ppg. Density was verified by pressurized scales.
Event	20	Shutdown	Shutdown	4/2/2023	16:59:26	NONE	102.12	14.97	0.07	175.01	Pumped all cement away and shutdown to drop and then wash up on top of the plug.

Event	21	Drop Top Plug	Drop Top Plug	4/2/2023	16:59:35	NONE	54.06	16.34	0.00	175.01	Shut in the manifold, screwed the pin out, open the top valve on the manifold, and engaged pumps to drop the top plug. Plug drop was witnessed and verified by HES and the company man.
Event	22	Pump Displacement	Pump Displacement	4/2/2023	16:59:38	NONE	43.68	16.33	0.00	0.00	Pumped 1979 bbls of fresh water for displacement at 8.5 bbls/min. Pressure started out at 250 psi and rose to 1,000 psi. Slowed rate down to 2 bbl/min 20 bbls away from bumping the plug. Pressure was 900 psi.
Event	23	Bump Plug	Bump Plug	4/2/2023	17:33:44	NONE	1524.06	8.43	0.00	194.10	Bumped the plug 500 psi over finale circulating pressure of 900 psi. finale pressure was 1,400 psi.

Event	24	Other	Other	4/2/2023	17:33:51	NONE	1541.57	8.43	0.00	194.10	Held pressure for a casing test. Casing held pressure. Bled off pressure to check floats. Floats held and 1 bbl of water returned to the truck.
Event	25	End Job	End Job	4/2/2023	17:35:41	NONE	32.22	8.32	0.00	0.00	Circulated 20 bbls of freshwater spacer and 20 bbls of SwiftCem cement to surface.
Event	26	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	4/2/2023	18:00:00	USER					Crew left location. Crew Jarod Camper members started their mandatory ten hour reset.
Event	27	Depart Location Safety Meeting	Depart Location Safety Meeting	4/2/2023	18:20:00	USER					Crew held a departing location safety meeting. Discussed rout of travel.

3.0 Attachments

3.1 Civitas, Cosslett East FED 1A 22H-H168, Surface .png

