HALLIBURTON

iCem® Service

CRESTONE PEAK RESOURCES

Blue 3-65 33-32-31-36 # 2AH - Surface
9.625” Surface Casing

Job Date: Tuesday, July 18, 2023

Sincerely,

Rafael Giorgana

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 **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 44 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 #:	05-001-10551
City, County:	Aurora, Adams
SO#:	0908730597

Job Times		
	Date (mm/dd/yyyy)	**Time (hh:mm)**
Requested Time On Location:	07/18/2023	03:30
Called Out Time:	07/17/2023	21:32
Arrived On Location:	07/18/2023	00:30
Job Started:	07/18/2023	08:20
Job Completed:	07/18/2023	10:19
Departed Location:	07/18/2023	13:00

	Description	Units	Value
1	Surface temperature at the time of the job	degree F	75
2	Mud type (OBM, WBM, Synthetic, Water, Brine)	-	WBM
3	Mud density	ppg	9.0
4	Casing set depth (shoe)	ft	3318
5	TVD	ft	3318
6	Float collar depth	ft	3281
7	Length of rate hole	ft	8
8	Previous casing shoe depth	ft	124
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	300
12	Mud circulation pressure at start of cement	psi	450
13	Annual flow before the start of job	Y/N	Y
14	Pipe movement during cement job	Y/N	N
15	Calculated displacement	bbls	254
16	Job displaced by	Rig/HES	HES
17	Estimated returns % during job	%	100
18	Fluid returns to surface	Spacer/Cement, bbls	Spacer / 20 Cement / 44
19	Final circulation pressure, rate prior to plug bump	psi @ bpm	1,100 @ 4
20	Number of Centralizers	-	26
21	Number of bottom plugs	-	0
22	Number of trucks used preparing/during job	-	1
23	Add hours? If Yes, put #	Y/N and hours	N / 0
24	NPT? If Yes, put #	Y/N and hours	N / 0

1.3 Water Field Test

	Recorded Value	Unit	Acceptable Limit	Potential Problems if Values Exceed the Limit
pH	8		6.0 - 8.0	Chemicals in water can cause severe retardation
Temperature	75	F	60 - 80 F	Can can pre-mature setting of cement
Chlorides	< 287	ppm	3000 ppm	Can shorten thickening time

1.4 Actual Pump Schedule

Stage 1

	Density (ppg)	Volume (bbls)	Yield (ft3/sk)	Water Requirement (gal/sk)	Bulk Sacks (sks)	Total Water (gals)
Spacer Fluid	8.33	20	-----	-----	-----	840
Cap Cement						
Lead Cement						
Tail Cement	13.5	421	1.39	7.33	1700	12,461
Top Plug						
Displacement Fluid	8.33	254	-----	-----	-----	10,542

Stage 2

	Density (ppg)	Volume (bbls)	Yield (ft3/sk)	Water Requirement (gal/sk)	Bulk Sacks (sks)	Total Water (gals)
Spacer Fluid						
Cap Cement						
Lead Cement						
Tail Cement						
Top Plug						
Displacement Fluid						

List of materials returned to yard:

2.0 Real-Time Job Summary

2.1 Job Event Log

Seq. No.	Activity	Graph Label	Date	Time	Comments
1	Call Out	Call Out	7/17/2023	21:32:00	Civitas Resources - Blue 3-65 33-32-31-36 # 2AH - 9.625" surface casing - on location 07/18/23 @ 03:30
2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	7/17/2023	22:45:00	Review journey management and route with crew members
3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	7/17/2023	23:00:00	Depart from yard - Ft. Lupton, CO
4	Arrive At Loc	Arrive At Loc	7/18/2023	00:30:00	Talk to company man () : TD = 3326', TP = 3318', ST = 37', P. CSG = 16" 55# @ 124', OH = 13.5", CSG = 9.625" 36#, WF = WBM @ 9.0#, Test water = pH – 8, chlorides - < 287 ppm, 75 F
5	Safety Meeting - Assessment of Location	Safety Meeting - Assessment of Location	7/18/2023	00:40:00	Spot equipment
6	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	7/18/2023	00:50:00	Review JSA with crew members
7	Rig-Up Equipment	Rig-Up Equipment	7/18/2023	01:00:00	Rig up iron and hoses needed for job
8	Rig-Up Completed	Rig-Up Completed	7/18/2023	02:30:00	Rig floor pending
9	Wait on Customer or Customer Sub-	Wait on Customer or Customer Sub-	7/18/2023	02:35:00	Rig is running casing and will circulate with the CRT

	Contractor Equip - Start Time	Contractor Equip - Start Time			
10	Safety Meeting - Pre Job	Safety Meeting - Pre Job	7/18/2023	07:45:00	Review job procedure and JSA with rig hands, co. man, and HES members
11	Rig-Up Equipment	Rig-Up Equipment	7/18/2023	08:00:00	Rig up plug container to Halliburton pump truck to commence cement jot; co man witnessed top plug being loaded
12	Start Job	Start Job	7/18/2023	08:20:00	9.625" surface casing; rig started circulating 07/18/23 @ 07:30 - 450 psi @ 10 bpm
13	Pump Water	Pump Water	7/18/2023	08:24:37	Pump 4 bbls of water to fill up lines
14	Test Lines	Test Lines	7/18/2023	08:26:24	Test kick outs to 500 psi & lines to 3000 psi
15	Pump Spacer	Pump Spacer	7/18/2023	08:30:12	20 bbls @ 8.33 ppg - 305 psi @ 5 bpm - dyed water spacer
16	Pump Cement	Pump Cement	7/18/2023	08:35:47	421 bbls @ 13.5 ppg - 350 psi @ 8 bpm - calculated 122 bbls back to surface
17	Check Weight	Check Weight	7/18/2023	08:42:45	Weigh cement sample @ 13.5 ppg
18	Check Weight	Check Weight	7/18/2023	09:07:41	Weigh cement sample @ 13.5 ppg
19	Shutdown	Shutdown	7/18/2023	09:37:54	Shutdown
20	Drop Top Plug	Drop Top Plug	7/18/2023	09:38:28	9.625" top plug
21	Pump Displacement	Pump Displacement	7/18/2023	09:39:01	Calculated 254 bbls total (254 bbls fresh water @ 8.33 ppg)

22	Cement Returns to Surface	Cement Returns to Surface	7/18/2023	10:06:32	Cement back to surface at 210 bbls of displacement gone; 44 bbls of cement back total
23	Slow Rate	Slow Rate	7/18/2023	10:10:29	Last 20 bbls @ 4 bpm
24	Bump Plug	Bump Plug	7/18/2023	10:15:53	At 254 bbls (1100 psi - 1600 psi)
25	Check Floats	Check Floats	7/18/2023	10:17:44	Floats held; 2 bbl back
26	End Job	End Job	7/18/2023	10:19:00	9.625" surface casing job
27	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	7/18/2023	10:25:00	Review JSA with HES crew members
28	Rig-Down Equipment	Rig-Down Equipment	7/18/2023	10:35:00	Rig down iron, plug container, and hoses used on job
29	Rig-Down Completed	Rig-Down Completed	7/18/2023	12:00:00	4 silos, compressor skid, plug container, and RCM will stay on location for the remaining surface jobs
30	Job Complete	Job Complete	7/18/2023	12:30:00	Paperwork completed and uploaded - 0 additional hours were added
31	Safety Meeting - Departing Location	Safety Meeting - Departing Location	7/18/2023	12:45:00	Review journey management and route with crew members
32	Depart Location	Depart Location	7/18/2023	13:00:00	Depart location

3.0 Attachments

3.1 Real Time Job Chart