

HALLIBURTON

iCem[®] Service

ANADARKO PETROLEUM CORP-EBUS

Ft. Lupton District, Colorado

For: Jake Hooper

Date: Friday, April 11, 2025

Oxy 13.375" Surface Glade West

Weld, Platteville

Sincerely,

Thomas Haas and Crew

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Glade West 13.375" Surface**. 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:

- **100% circulation during job.**
- **Final Circulating Pressure 700 psi 4bbl/min**
- **156 bbls of cement to surface.**
- **Pumped job as planned.**

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

1.1 Job Overview

Job Details	
API #:	05-123-52915
City, County:	Platteville, Weld
SO#:	909998682

Job Times		
	Date (mm/dd/yyyy)	Time (hh:mm)
Requested Time On Location:	4/11/25	8:00
Called Out Time:	4/11/25	2:00
Arrived On Location:	4/11/25	7:00
Job Started:	4/11/25	10:15
Job Completed:	4/11/25	12:46
Departed Location:	4/11/25	14:00

	Description	Units	Value
1	Surface temperature at the time of the job	Degrees	56
2	Mud type (OBM, WBM, Synthetic, Water, Brine)	-	WBM
3	Mud density	ppg	8.4
4	Casing set depth (shoe)	ft	2356
5	TVD	ft	2356
6	Float collar depth	ft	2309
7	Length of rate hole	ft	11

8	Previous casing shoe depth	ft	80
9	Pre-job mud circulation time	hh:mm	2:00
10	Pre-job mud circulation rate	bpm	12
11	Pre-job mud circulation volume	bbls	1150
12	Mud circulation pressure at start of cement	psi	150
13	Annual flow before the start of job	Y/N	y
14	Pipe movement during cement job	Y/N	N
15	Calculated displacement	bbls	356.7
16	Job displaced by	Rig/HES	HES
17	Estimated returns % during job	%	100
18	Fluid returns to surface	Spacer/Cement, bbls	156 bbl
19	Final circulation pressure, rate prior to plug bump	psi @ bpm	700 4bbl/min
20	Number of Centralizers	-	18
21	Number of bottom plugs	-	1
22	Number of trucks used preparing/during job	-	3
23	Add hours? If Yes, put #	Y/N and hours	n
24	NPT? If Yes, put #	Y/N and hours	n

Water Field Test

	Recorded Value	Unit	Acceptable Limit	Potential Problems if Values Exceed the Limit
pH	7.0		6.0 - 8.0	Chemicals in water can cause severe retardation
Temperature	53	F	60 - 80 F	Can can pre-mature setting of cement
Chlorides	<300	ppm	3000 ppm	Can shorten thickening time

1.2 Actual Pump Schedule

Stage 1

	Density (ppg)	Volume (bbls)	Yield (ft3/sk)	Water Requirement (gal/sk)	Bulk Sacks (sks)	Total Water (gals)
Fresh Water	8.33	40				1680
Spacer SA-1015	8.35	20				840
Bottom Plug	1					
Cement	13.5	441.1	1.33	6.87	1875	12881
Top Plug	1					
Displacement Fluid	H2O	356.7				

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq No.	Activity	Graph Label	Date	Time	Source	Dwnhole Density (ppg)	Cmb Pump Rate (bbl/min)	Pump A Pressure (psi)	Cmb Stg Total (bbl)	Comments
Event	1	Call Out	Call Out	4/11/2025	02:00:00	USER					CREW CALLED OUT FOR JOB.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/11/2025	06:15:00	USER					PRE-CONVOY SAFETY MEETING AT HES LOCATON TO DISCUSS ROUTE AND DRIVING HAZARDS.
Event	3	Crew Leave Yard	Crew Leave Yard	4/11/2025	06:30:00	USER					CREW DEPARTS HALLIBURTON FACILITIES FOR LOCATION.
Event	4	Arrive At Loc	Arrive At Loc	4/11/2025	07:00:00	USER					CREW ARRIVES ON LOCATION. MET WITH CO MAN TO DISCUSS JOB. TD-2366' 17.5" OH, TP-2356' 13.375" 54.5# L80, FC-2309', PC-80' 20", TVD-2356', 8.8.4 PPG WBM. 1 BTM PLUG, 1 TOP PLUG. WATER 53* 7.0 PH, <300 CHLORIDES.

Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	4/11/2025	07:10:00	USER					PRE-RIG UP SAFTEY MEETING WITH ALL HES EMPLOYEES TO DISCUSS HAZARDS OF LOCATION AND DISCUSS RIG UP SEQUENCE.
Event	6	Rig-up Lines	Rig-up Lines	4/11/2025	07:15:00	USER					RIG UP PUMPS AND LINES.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	4/11/2025	08:00:00	USER					SAFTEY NMEETING WITH HES, COMPANY MAN, AND RIG HANDS.
Event	8	Start Job	Start Job	4/11/2025	10:15:11	NONE	2.79	0.00	-11.77	0.00	START JOB DATA RECORDING.
Event	9	Other	Fill Lines	4/11/2025	10:15:44	USER	8.54	1.76	-5.67	0.18	FILL LINES WITH 3 BBL OF FRESH WATER.
Event	10	Test Lines	Test Lines	4/11/2025	10:17:48	NONE	8.32	0.00	-3.75	3.29	PRESSURE TESTED LINES TO 3900 PSI, 500 EKO TEST AT 600PSI, 5TH GEAR STALL AT 2400PSI.
Event	11	Pump Spacer 1	Pump Spacer 1	4/11/2025	10:21:11	NONE	8.33	0.00	-2.64	0.00	PUMP 40 BBL OF FRESH WATER SPACER WITH 1LBS OF GREEN DYE.
Event	12	Pump Spacer 2	Pump Spacer 2	4/11/2025	10:29:16	NONE	8.33	5.08	52.30	0.08	PUMP 20 BBL OF FRESH WATER WITH 50 LBS SA-1015.

Event	13	Shutdown	Shutdown	4/11/2025	10:33:20	NONE	8.33	0.00	26.49	20.21	SHUTDOWN TO DROP BOTTOM PLUG.
Event	14	Drop Bottom Plug	Drop Bottom Plug	4/11/2025	10:37:09	NONE	8.32	0.00	-1.36	20.21	PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	15	Pump Cement	Pump Cement	4/11/2025	10:37:12	NONE	8.32	0.00	-1.25	0.00	PUMPED 444.1 BBLS, 1875 SKS OF 13.5 PPG VARICEM 1.33 CUFT/SK AND 6.87 GAL/SK VERIFIED WEIGHT WITH PRSSURIZED MUD SCALES.
Event	16	Shutdown	Shutdown	4/11/2025	11:31:56	NONE	13.71	4.30	89.33	470.12	SHUTDOWN TO CLEAN LINES.
Event	17	Clean Lines	Clean Lines	4/11/2025	11:32:18	NONE	13.76	0.00	12.35	470.84	CLEAN PUMPS AND LINES.
Event	18	Drop Top Plug	Drop Top Plug	4/11/2025	11:39:08	NONE	8.29	0.00	-9.71	9.91	PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	19	Pump Displacement	Pump Displacement	4/11/2025	11:39:10	NONE	8.29	0.00	-9.96	0.00	BEGIN PUMPING 356.7 BBL OF FRESH WATER DISPLACEMENT.
Event	20	Other	Shutdown	4/11/2025	12:16:40	NONE	8.15	0.00	592.06	343.24	HESITATE FOR 5 MIN.
Event	21	Other	Shutdown	4/11/2025	12:23:43	NONE	8.16	0.00	571.39	348.48	HESITATE FOR 5 MIN.
Event	22	Other	Shutdown	4/11/2025	12:27:09	NONE	8.15	0.00	643.43	353.58	HESITATE FOR 10 MIN.

Event	23	Bump Plug	Bump Plug	4/11/2025	12:41:36	NONE	8.19	0.00	1187.61	370.28	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATION PRESSURE OF 700 PSI AT 4 BBL/MIN. 156 BBL OF CEMENT TO SURFACE.
Event	24	Other	Casing Test	4/11/2025	12:42:10	USER	8.20	0.00	1294.45	370.28	HELD CASING TEST AT 1300 PSI FOR 5 MIN.
Event	25	Check Floats	Check Floats	4/11/2025	12:45:25	USER	8.22	0.00	1308.59	370.28	RELEASED PRESSURE BACK TO THE TRUCK TO CHECK FLOATS, FLOATS HELD, 2 BBL BACK TO THE TRUCK.
Event	26	End Job	End Job	4/11/2025	12:46:10	NONE	8.09	0.00	56.97	370.28	END JOB DATA RECORDING.
Event	27	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	4/11/2025	13:00:00	USER	8.14	0.00	0.77	15.53	PRE-RIG DOWN SAFETY MEETING TO DISCUSS HAZARDS OF LOCATION AND SEQUENCE OF RIG DOWN.
Event	28	Rig Down Lines	Rig Down Lines	4/11/2025	13:10:00	USER					RIG DOWN PUMPS AND LINES.
Event	29	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	4/11/2025	13:40:00	USER					PRE-CONVOY SAFETY MEETING ON LOCATION TO DISCUSS ROUTE AND DRIVING HAZARDS.

Event 30 Crew Leave Location Crew Leave Location 4/11/2025 14:00:00 USER

CREW DEPARTS
LOCATION, THANK
YOU FOR CHOOSING
HES. THOMAS HAAS
AND CREW.

3.0 Attachments

3.1 Job CHart.png

