

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Friday, January 03, 2020

GP Cody Fed 20E-15-1 Surface

Job Date: Friday, January 03, 2020

Sincerely,

NICK KORNAFEL & CREW

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 **GP Cody Fed 20E-15-1** cement **surface** 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 40 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

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3987169		Quote #:		Sales Order #: 0906194113					
Customer: EXTRACTION OIL & GAS -				Customer Rep: COLBY							
Well Name: GP CODY FED			Well #: 20E-15-1		API/UWI #: 05-123-50286-00						
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO					
Legal Description: NE NE-20-5N-65W-670FNL-1305FEL											
Contractor:				Rig/Platform Name/Num: Cartel 15							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA/H171328				Srv Supervisor: Nikolaus Kornafel							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type					BHST						
Job depth MD		1611ft			Job Depth TVD						
Water Depth					Wk Ht Above Floor						
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	
Open hole		13.5					0	1611	0	1611	
Casing		9.625		36			0	1611	0	1611	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625	1		1608		Top Plug	9.625	1	HES		
Float Shoe	9.625										
Float Collar	9.625	1		1563							
Insert Float	9.625					Plug Container	9.625	1	HES		
Stage Tool	9.625					Centralizers	9.625				
Fluid Data											
Stage/Plug #: 1											
Fluid #	Stage Type	Fluid Name			Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	RED DYE	Red Dye Spacer			10	bbl	8.33			3	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	CEMENT	SWIFTCEM (TM) SYSTEM	590	sack	13.5	1.74	9.17	8	5,410
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Fresh Water	Fresh Water	121	bbl	8.33			8	
Cement Left In Pipe		Amount	45 ft		Reason			Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride:	0 ppm			Mix Water Temperature:	69 °F		
Cement Temperature:	N/A	Plug Displaced by:	8.33 lb/gal			Disp. Temperature:	69 °F		
Plug Bumped?	Yes	Bump Pressure:	585 psi			Floats Held?	Yes		
Cement Returns:	40 bbl	Returns Density:	N/A			Returns Temperature:	N/A		
Comment PUMPED 10 BBLS OF RED DYE SPACER FOLLOWED BY 590 SKS OF CEMENT AND THEN SHUTDOWN TO DROP THE TOP PLUG AND DISPLACED WITH 121 BBLS OF FRESH WATER. BUMPED THE PLUG AND CHECK FLOATS, FLOATS HELD 1 BBL BACK. 40 BBLS OF CEMENT TO SURFACE.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	DH Density (ppg)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	1/2/2020	14:00:00	USER					CREW CALLED OUT AT 14:00, REQUESTED ON LOCATION 18:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. AND PUMP 11826999.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/2/2020	16:00:00	USER					CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	1/2/2020	16:15:00	USER					STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	1/2/2020	17:30:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,608, 13.5" HOLE, TD 1,611', SHOE TRAC- 45'. PUMP FRESH WATER DISPLACEMENT 121 BBLS. CASING LANDED @ 22:30 1/2/2020. RIG CIRCULATED BOTTOMS UP.

Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/2/2020	18:00:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	1/2/2020	19:00:00	USER					CREW STAGED EQUIPMENT, RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/2/2020	22:30:00	USER	-16.00	0.00	8.48	9.50	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	8	Start Job	Start Job	1/2/2020	23:02:22	COM11	0.00	0.00	8.44	9.50	BEGIN RECORDING JOB DATA
Event	9	Test Lines	Test Lines	1/2/2020	23:04:38	COM11	48.00	0.00	8.28	12.00	TESTED ELECTRONIC KICKOUTS AT 500 PSI, KICKED OUT AT 880 PSI THEN PRESSURE TESTED IRON TO 2500 PSI, PRESSURE HELD WITH NO LEAKS
Event	10	Pump Spacer 1	Pump Spacer 1	1/2/2020	23:07:35	COM11	26.00	1.60	8.26	12.50	PUMPED 10 BBLS OF RED DYE SPACER
Event	11	Pump Lead Cement	Pump Lead Cement	1/2/2020	23:12:40	COM11	81.00	2.30	9.19	11.20	PUMPED 590 SKS OF CEMENT AT 13.5 LB/GAL, 1.57 FT3/SK, 9.17 GAL/SK AT 8 BPM 509 PSI. DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Check Weight	Check Weight	1/2/2020	23:14:07	COM11	341.00	6.60	13.58	5.50	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Check Weight	Check Weight	1/2/2020	23:24:49	COM11	296.00	8.50	13.49	95.70	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.

Event	14	Check Weight	Check Weight	1/2/2020	23:29:13	COM11	403.00	7.90	13.44	125.40	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Shutdown	Shutdown	1/2/2020	23:43:19	COM11	57.00	0.00	15.44	208.10	SHUTDOWN TO WASH LINES
Event	16	Drop Top Plug	Drop Top Plug	1/2/2020	23:46:11	COM11	10.00	0.00	-0.84	208.10	TOP PLUG LOADED INTO THE CASING, WITNESSED BY THE COMPANY MAN.
Event	17	Pump Displacement	Pump Displacement	1/2/2020	23:46:14	COM11	10.00	0.00	-0.84	0.00	BEGIN TO PUMP 121 BBLS OF FRESH WATER DISPLACEMENT
Event	18	Bump Plug	Bump Plug	1/3/2020	00:07:06	COM11	1456.00	0.00	7.87	130.20	PLUG BUMPED AT CALCULATED DISPLACEMENT, 40 BBLS OF CEMENT TO SURFACE.
Event	19	Other	Other	1/3/2020	00:07:10	COM11	1458.00	0.00	7.87	130.20	RELEASED PRESSURE TO CHECK FLOATS, FLOATS HELD, 1 BBL BACK TO THE TRUCK
Event	20	End Job	End Job	1/3/2020	00:08:29	COM11	11.00	0.00	7.84	130.20	STOP RECORDING JOB DATA
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/3/2020	00:10:00	USER	8.00	0.00	7.84	130.20	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	22	Rig-Down Completed	Rig-Down Completed	1/3/2020	01:15:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	23	Safety Meeting - Departing Location	Safety Meeting - Departing Location	1/3/2020	01:30:00	USER					CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.

3.0 Attachments

3.1 EXTRACTION GP CODY FED 20E-15-1 SURFACE-Custom Results.png

