

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Tuesday, June 12, 2018

Extraction VT LDS C3-16-18 Surface

Job Date: Sunday, May 27, 2018

Sincerely,
Tyler Hill

Legal Notice

Disclaimer:

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **VT LDS C3-16-18** 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 60 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 Ft. Lupton

The Road to Excellence Starts with Safety

Sold To #: 369404		Ship To #: 3787028		Quote #:		Sales Order #: 0904877640					
Customer: EXTRACTION OIL & GAS -				Customer Rep: Sean McIntyre							
Well Name: VT-LDS			Well #: C3-16-18			API/UWI #: 05-123-44418-00					
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: WELD		State: COLORADO					
Legal Description: SW NW-15-5N-65W-1895FNL-554FWL											
Contractor: Shawn McIntyre				Rig/Platform Name/Num: Cartel 11							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Thomas Haas							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		1615ft		Job Depth TVD		1615					
Water Depth				Wk Ht Above Floor		4					
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 Section			13.5				0	1609	0	1609	
Casing	0	9.625	8.921	36	8 RD	J-55	0	1615	0	1615	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625					Top Plug	9.625	1	HES		
Float Shoe	9.625			1615		Bottom Plug	9.625				
Float Collar	9.625			1573		SSR plug set	9.625				
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 Spacer	Red Dye Spacer			50	bbl	8.33				2100
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	SwiftCem	SWIFTCCEM (TM) SYSTEM	675	sack	13.5	1.74	9.2	5	6210
9.20 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Fresh Water	Fresh Water	122	bbl	8.33				5124
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		<300 ppm		Mix Water Temperature:		76°F
Cement Temperature:		N/A	Plug Displaced by:		8.33 lb/gal F.W.		Disp. Temperature:		N/A
Plug Bumped?		Yes	Bump Pressure:		385 psi		Floats Held?		Yes
Cement Returns:		60 bbl	Returns Density:		N/A		Returns Temperature:		N/A
Comment Pumed calculated displacement, plug bumped final circulating pressure of 385 psi, 60 bbl cement to surface, held 5 min casing test at 1050 psi, released pressure, 1 bbl back to truck, floats held.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	5/26/2018	20:00:00	USER				CREW CALLED OUT AT 06:00 5/26/2018, REQUESTED ON LOCATION 12:00 5/26/2018. CREW PICKED UP CEMENT, 100 LBS SUGAR, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 12350112/10866484 Bulk 660: 12154546/10991603 PUMP RED TIGER: 11542778
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/26/2018	22:45:00	USER				DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	5/26/2018	23:00:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	5/27/2018	00:30:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 36# 9.625" J-55 @ 1609', 42' SHOE JOINT, 13.5" OPEN HOLE, 9.0 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/27/2018	00:35:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	5/27/2018	00:45:00	USER				CREW STAGED EQUIPMENT

										AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/27/2018	01:00:00	USER	8.38	0.00	1.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	5/27/2018	02:02:15	COM4	8.40	0.00	0.00	START JOB DATA RECORDING.
Event	9	Test Lines	Test Lines	5/27/2018	02:08:11	COM4	8.39	0.00	6.00	PRESSURE TESTED IRON TO 3250 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1900 PSI, 5TH GEAR STALL OUT @1800 PSI.
Event	10	Pump Spacer 1	Pump Spacer 1	5/27/2018	02:13:53	COM4	8.39	0.00	3.00	PUMP 40 BBL FRESH WATER SPACER.
Event	11	Pump Spacer 2	Pump Spacer 2	5/27/2018	02:25:18	COM4	8.40	3.40	66.00	PUMP 10 BBL RED DYE WITH FRESH WATER SPACER.
Event	12	Pump Cement	Pump Cement	5/27/2018	02:29:15	COM4	10.50	3.40	76.00	PUMP 675 SKS OF SWIFTCM @ 13.5 LB/GAL, 1.74 YIELD, 9.2 GAL/SK, 209 BBLs, TOL @ SURFACE, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Shutdown	Shutdown	5/27/2018	03:13:10	COM4	14.66	0.00	31.00	SHUTDOWN TO DROP TOP PLUG.
Event	14	Drop Top Plug	Drop Top Plug	5/27/2018	03:14:22	COM4	14.88	0.00	11.00	PLUG LEFT PLUG CONTAINER.
Event	15	Pump Displacement	Pump Displacement	5/27/2018	03:14:29	COM4	14.95	0.00	12.00	BEGIN CALCULATED DISPLACEMENT OF 122 BBL.
Event	16	Bump Plug	Bump Plug	5/27/2018	03:43:19	COM4	8.42	0.00	918.00	PLUG BUMPED AT CALCULATED

DISPLACEMENT FINAL
CIRCULATING PRESSURE OF
385 PSI.

Event	17	Other	Casing Test	5/27/2018	03:43:34	COM4	8.42	0.00	1006.00	5 MIN CASING TEST AT 1050 PSI.
Event	18	Other	Check Floats	5/27/2018	03:48:42	COM4	8.42	0.00	1040.00	RELEASE PRESSURE, FLOATS HELD, 1 BBL BACK TO TRUCK.
Event	19	End Job	End Job	5/27/2018	03:50:16	COM4	8.40	0.00	3.00	STOP JOB DATA RECORDING.
Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/27/2018	04:00:00	USER	8.40	0.00	0.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	21	Rig-Down Completed	Rig-Down Completed	5/27/2018	05:00:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	5/27/2018	05:15:00	USER				DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	23	Crew Leave Location	Crew Leave Location	5/27/2018	05:30:00	USER				THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Extraction VT LDS C3-16-18 Surface.png

