

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

United A S16-20-6N

United A S16-20-6N

Job Date: Saturday, May 23, 2020

Sincerely,

Nick Roles and 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 United A S16-20-6N surface casing. 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 20 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 #: 3909335		Quote #:		Sales Order #: 0906520023				
Customer: EXTRACTION OIL & GAS-EBUS				Customer Rep: Manny Parras						
Well Name: UNITED A			Well #: S16-20-6N			API/UWI #: 05-014-20806-00				
Field: WATTENBERG		City (SAP): BROOMFIELD		County/Parish: BROOMFIELD		State: COLORADO				
Legal Description: NE NE-9-1S-68W-426FNL-1221FEL										
Contractor: ENSIGN DRLG				Rig/Platform Name/Num: ENSIGN 147						
Job BOM: 7521 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA/HX41066				Srv Supervisor: Nicholas Roles						
Job										
Formation Name										
Formation Depth (MD)		Top		Bottom						
Form Type				BHST						
Job depth MD		1631ft		Job Depth TVD	1631ft					
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
Casing		9.625	8.921	36			0	1631	0	1631
Open Hole Section			13.5				0	1640	0	1640
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe						Top Plug	9.625	1	HES	
Float Shoe	9.625			1631		Bottom Plug				
Float Collar	9.625			1587		SSR plug set				
Insert Float						Plug Container	9.625	1	HES	
Stage Tool						Centralizers				
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	Water	Water	10	bbl	8.34			5		
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	Water with dye	Water with dye	10	bbl	8.34			5	
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	SwiftCem	SWIFTCM (TM) SYSTEM	600	sack	13.5	1.74		8	9.17
9.17 Gal		FRESH WATER							
0.1250 lbm		POLY-E-FLAKE (101216940)							
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	Displacement	Displacement	122	bbl	8.34			10	
Cement Left In Pipe		Amount	44 ft		Reason			Shoe Joint	
Mix Water:		pH 7	Mix Water Chloride:		1000 ppm		Mix Water Temperature:		65 °F
Cement Temperature:		70°F	Plug Displaced by:		8.33 lb/gal		Disp. Temperature:		65 °F
Plug Bumped?		Yes	Bump Pressure:		1280 psi MPa		Floats Held?		Yes
Cement Returns:		20bbl	Returns Density:				Returns Temperature:		
Comment Got 20bbls cement to surface.									

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	5/23/2020	02:00:00	USER					Called out by Service Coordinator for O/L at 0800
Event	2	Arrive at Location from Service Center	Arrive at Location from Service Center	5/23/2020	06:00:00	USER					Upon arrival met with company man to discuss job details and calculations, performed hazard hunt and site assessment. Stayed OL from previous surface.
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	5/23/2020	07:45:44	USER					Discussed rigging up hazards and procedure according to HMS.
Event	4	Rig-Up Date/Time	Rig-Up Date/Time	5/23/2020	07:50:00	USER					Begin Rig-up.
Event	5	Rig-Up Completed	Rig-Up Completed	5/23/2020	08:00:00	USER					Rig-up complete with no injuries.
Event	6	Other	Other	5/23/2020	08:10:00	USER	8.60	0.00	-1.07	0.00	Water test- PH-6, Chlor-0, Temp-65. Cement temp-70.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	5/23/2020	10:25:00	USER	8.42	0.00	-0.71	16.38	Held safety meeting with all job associated personnel to discuss job procedure, hazards and stop work authority.
Event	8	Start Job	Start Job	5/23/2020	10:37:47	NONE	0.00	0.00	-1.57	16.38	TD-1640' OH-13.5", TP-1631' 9.625" 36#, FC-1587, Mud-8.8#
Event	9	Prime Pumps	Prime Pumps	5/23/2020	10:43:07	NONE	5.94	0.82	18.12	16.57	
Event	10	Test Lines	Test Lines	5/23/2020	10:44:00	NONE	8.37	0.00	76.92	17.61	Pumped 2bbls to fill lines, established circulation,

shutdown and closed manifold, performed 500psi k/o function test, continued with 5th gear stall at 1200psi proceeded to bring pressure to 3000psi. Pressure stabilized and held with no leaks.

Event	11	Pump Spacer 1	Pump Spacer 1	5/23/2020	10:45:18	NONE	8.39	0.00	78.07	0.00	Pumped 10bbbls fresh water at 5bpm 190psi.
Event	12	Pump Spacer 2	Pump Spacer 2	5/23/2020	10:48:05	NONE	8.35	4.88	190.60	0.08	Pumped 10bbbls fresh water with 1# Red Dye at 5bpm 140psi.
Event	13	Pump Cement	Pump Cement	5/23/2020	10:50:14	USER	8.27	4.89	184.89	10.53	Pumped 600sks or 186bbbls 13.5# 1.74y 9.2g/s Swiftcem at 9bpm 560si.
Event	14	Check Weight	Check Weight	5/23/2020	10:51:41	NONE	14.09	4.89	222.17	17.72	Weight verified with pressurized mud scales.
Event	15	Shutdown	Shutdown	5/23/2020	11:11:44	NONE	-0.49	0.00	77.21	189.66	Wash up on top of plug.
Event	16	Drop Top Plug	Drop Top Plug	5/23/2020	11:11:50	NONE	-0.53	0.00	54.50	189.66	Dropped by HES supervisor, witnessed by company man.
Event	17	Pump Displacement	Pump Displacement	5/23/2020	11:11:57	NONE	-0.54	0.00	40.68	0.00	Pumped 122bbbls of fresh water at 10bpm.
Event	18	Other	Other	5/23/2020	11:33:15	NONE	8.37	0.00	1098.63	122.27	Released pressure and got 0.5bbbls back. Floats held.
Event	19	End Job	End Job	5/23/2020	11:34:00	NONE	8.27	0.00	7.16	122.27	Got 20bbbls cement to surface.
Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	5/23/2020	11:45:00	USER					Discussed rigging down hazards and procedure according to HMS with all HES personnel
Event	21	Safety Meeting - Departing Location	Safety Meeting - Departing Location	5/23/2020	12:00:00	USER					Held meeting with all personnel in convoy to discuss directions and

						hazards associated with drive, all fit to drive.
Event	22	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	5/23/2020	12:15:00	USER
						Pre journey management prior to departure.

3.0 Attachments

3.1 United A S16-20-6N-Custom Results.png

