

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS

Date: Friday, December 01, 2017

Alma 1S-66-2524 19NH Surface

Job Date: Monday, November 13, 2017

Sincerely,

Bryce Hinsch

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Alma 1S-66-2524 19NH** 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 30 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 #: 3791423		Quote #:		Sales Order #: 0904434818					
Customer: EXTRACTION OIL & GAS -				Customer Rep: JOSE TORRES							
Well Name: ALMA 1S-66-2524			Well #: 19NH		API/UWI #: 05-001-10020-00						
Field: WATTENBERG		City (SAP): IRONDALE		County/Parish: ADAMS		State: COLORADO					
Legal Description: SW SE-25-1S-66W-287FSL-1964FEL											
Contractor:				Rig/Platform Name/Num: Cyclone 37							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srvc Supervisor: Jason Welton							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		1662ft		Job Depth TVD		1662					
Water Depth				Wk Ht Above Floor		5					
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	0	9.625	8.921	36	8 RD	J-55	0	1662	0	0	
Open Hole Section			13.5				0	1690	0	1690	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	9.625			1662		Top Plug	9.625	1	HES		
Float Shoe	9.625					Bottom Plug	9.625		HES		
Float Collar	9.625					SSR plug set	9.625		HES		
Insert Float	9.625					Plug Container	9.625		HES		
Stage Tool	9.625					Centralizers	9.625		HES		
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			10	bbl	8.33				

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	SWIFTCEM (TM) SYSTEM	575	sack	13.5	1.74		5	9.2
9.20 Gal		FRESH WATER							
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	125	bbl	8.33				
Cement Left In Pipe		Amount	44 ft		Reason			Shoe Joint	
Mix Water:		pH ##	Mix Water Chloride:## ppm			Mix Water Temperature:## °F °C			
Cement Temperature:## °F °C		Plug Displaced by:## lb/gal kg/m3 XXXX				Disp. Temperature:## °F °C			
Plug Bumped?		Yes/No	Bump Pressure:#### psi MPa			Floats Held?Yes/No			
Cement Returns:## bbl m3		Returns Density:## lb/gal kg/m3			Returns Temperature:## °F °C				
Comment JOB WENT AS PER DESIGN									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Arrive At Loc	Arrive At Loc	11/13/2017	17:00:00	USER				CREW STAGED OUT FOR SECOND SURFACE ON PAD/RIG DRILLING AHEAD
Event	2	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/13/2017	17:05:00	USER				SPOT IN HES TRUCKS/TEST WATER
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/13/2017	17:15:00	USER				TEAM LIFT
Event	4	Rig-Up Equipment	Rig-Up Equipment	11/13/2017	17:20:00	USER				
Event	5	Rig-Up Completed	Rig-Up Completed	11/13/2017	18:00:00	USER				HES READY
Event	6	Wait on Customer or Customer Sub-Contractor Equip - Start Time	Wait on Customer or Customer Sub-Contractor Equip - Start Time	11/13/2017	18:05:00	USER				RIG FINISH DRILLING/TOOH/RUN CASING/CONDITION WELL
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/14/2017	01:25:00	USER	-30.00	8.45	0.00	REVIEW JOB AND SAFETY PROCEDURES
Event	8	Start Job	Start Job	11/14/2017	02:47:37	COM4	-26.00	8.47	0.00	
Event	9	Test Lines	Test Lines	11/14/2017	02:48:56	COM4	-20.00	8.53	0.00	500PSI LOW/2500PSI HIGH/TESTS GOOD
Event	10	Pump Spacer 1	Pump Spacer 1	11/14/2017	02:50:54	COM4	7.00	8.56	1.20	FRESHWATER/BREAK CIRCULATION
Event	11	Pump Spacer 2	Pump Spacer 2	11/14/2017	02:52:33	COM4	77.00	8.58	2.00	10BBLS FRESHWATER w/RED DYE/4BPM/127PSI
Event	12	Pump Cement	Pump Cement	11/14/2017	02:55:20	COM4	280.00	12.73	5.90	575SKS/178BBLS @

				7						13.5PPG/6BPM/335PSI
Event	13	Shutdown	Shutdown	11/14/2017	03:26:44	COM4	27.00	13.62	0.00	
Event	14	Drop Plug	Drop Plug	11/14/2017	03:26:57	COM4				HES TOP PLUG
Event	15	Pump Displacement	Pump Displacement	11/14/2017	03:26:58	COM4	7.00	13.67	0.00	125BBLS FRESHWATER/7BPM/170PSI
Event	16	Bump Plug	Bump Plug	11/14/2017	03:49:26	COM4				PLUG DOWN AT 125BBLS DISPLACED/865PSI/CIRCULA TED 30BBLS CEMENT TO SURFACE
Event	17	Other	Other	11/14/2017	03:50:05	COM4				CHECK FLOATS/HELD/0.5BBL BACK
Event	18	End Job	End Job	11/14/2017	04:00:00	COM4	-20.00	-0.15	0.00	
Event	19	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/14/2017	04:05:00	USER	-22.00	-0.13	0.00	
Event	20	Rig-Down Equipment	Rig-Down Equipment	11/14/2017	04:10:00	USER				
Event	21	Rig-Down Completed	Rig-Down Completed	11/14/2017	05:00:00	USER				
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/14/2017	05:15:00	USER				
Event	23	Depart Location	Depart Location	11/14/2017	05:30:00	USER				THANK YOU

3.0 Attachments

3.1 Extraction Alma 1S-66-2524 19NH Surface Job Chart

