

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Date: Wednesday, February 13, 2019

Coyote Trails 33S-20-3N Surface

Job Date: Tuesday, February 05, 2019

Sincerely,

Bryce Hinsch

Legal Notice

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Table of Contents

1.0	Cementing Job Summary	4
1.1	Executive Summary	4
2.0	Real-Time Job Summary	7
2.1	Job Event Log	7
3.0	Attachments.....	10
3.1	Extraction Coyote Trails 33S-20-3N Surface Job Chart	10

1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Coyote Trails 33S-20-3N** 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 10 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 #: 3843096	Quote #:	Sales Order #: 0905467709
Customer: EXTRACTION OIL & GAS -		Customer Rep: Todd Stephens	
Well Name: COYOTE TRAILS		Well #: 33S-20-3N	API/UWI #: 05-123-45988-00
Field: WATTENBERG	City (SAP): ERIE	County/Parish: WELD	State: COLORADO
Legal Description: SW SE-28-1N-68W-1148FSL-2265FEL			
Contractor: ENSIGN DRLG		Rig/Platform Name/Num: ENSIGN 147	
Job BOM: 7521 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Thomas Haas	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	1600ft	Job Depth TVD	1600
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	1600	0	1600
Open Hole Section			13.5				0	1610	0	1610

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	1		1600	Bottom Plug			
Float Collar	9.625	1		1559	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	Red Dye Spacer	Red Dye Spacer	20	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	585	sack	13.5	1.74	9.2	5	5290	
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	120	bbl	8.33					
Cement Left In Pipe		Amount	N/A		Reason Wet Shoe			Shoe Joint		
Mix Water:		pH	Mix Water Chloride:			<300 ppm		Mix Water Temperature:		50 °F
Cement Temperature:		N/A	Plug Displaced by:			8.33 lb/gal F.W.		Disp. Temperature:		50 °F
Plug Bumped?		Yes	Bump Pressure:			500 psi		Floats Held?		Yes
Cement Returns:		10 bbl	Returns Density:			N/A		Returns Temperature:		N/A
Comment Plug bumped at calculated displacement, final circulating pressure of 500 psi, released pressure back to the truck 1.5 bbl back, 10 bbl cement back to surface.										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	DS Pump Press <i>(psi)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Call Out	Call Out	2/4/2019	15:00:00	USER					CREW CALLED OUT AT 15:00 2/4/2019 REQUESTED ON LOCATION 18:00 2/4/2019. CREW PICKED UP CEMENT, 100 LBS SUGAR, AND PLUG CONTAINER FROM FORT LUPTON, CO. BULK 660: 11019273/11566182 Bulk 660: 11338213/11633846 PUMP ELITE: 11897034/11645460
Event	2	Arrive At Loc	Arrive At Loc	2/4/2019	16:30:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 36# 9.625" J-55 @ 1600', 41' SHOE JOINT, 13.5" OPEN HOLE, 8.4 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	3	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/4/2019	16:35:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	4	Rig-Up Equipment	Rig-Up Equipment	2/4/2019	16:40:00	USER					CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.
Event	5	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/4/2019	17:15:00	USER					DISCUSSED ROUTES HAZARDS AND

Event	ID	Description	Activity	Date	Time	User	Volume	Cost	Revenue	Profit	Notes
											COMMUNICATION WITH CREW.
Event	6	Crew Leave Yard	Crew Leave Yard	2/4/2019	17:30:00	USER					STARTED JOURNEY MANAGEMENT.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	2/4/2019	19:00:00	USER					MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	2/4/2019	19:28:17	COM4	8.42	0.00	-14.00	0.00	START JOB DATA RECORDING.
Event	9	Test Lines	Test Lines	2/4/2019	19:30:13	COM4	8.58	0.00	-38.00	2.10	PRESSURE TESTED IRON TO 3200 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 1130 PSI, 5TH GEAR STALL OUT @ 1740 PSI.
Event	10	Pump Spacer 1	Fresh Water	2/4/2019	19:33:11	COM4	8.54	0.00	-39.00	2.20	PUMP 10 BBL FRESH WATER.
Event	11	Pump Spacer 1	Red Dye	2/4/2019	19:36:54	COM4	8.57	3.80	70.00	0.00	PUMP 10 BBL RED DYE WITH FRESH WATER.
Event	12	Pump Spacer 1	Pump Spacer 1	2/4/2019	19:39:28	COM4	8.56	3.90	67.00	9.90	
Event	13	Pump Lead Cement	Pump Lead Cement	2/4/2019	19:39:48	COM4	8.57	3.90	67.00	1.30	PUMP 585 SKS OF SWIFTCEM @ 13.5 LB/GAL, 1.74 YIELD, 9.2 GAL/SK, 181 BBLs, TOL @ SURFACE, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	14	Shutdown	Shutdown	2/4/2019	20:11:43	COM4	14.38	0.00	43.00	168.80	SHUT DOWN TO DROP TOP PLUG.
Event	15	Pump Displacement	Pump Displacement	2/4/2019	20:12:56	COM4	14.27	0.00	-33.00	168.80	BEGIN CALCULATED DISPLACEMENT OF 120 BBLs WITH FRESH WATER.
Event	16	Cement Returns to	Cement Returns to	2/4/2019	20:33:36	USER	8.01	3.10	449.00	115.20	CEMENT RETURNED TO

		Surface	Surface								SURFACE 110 BBL INTO DISPLACEMENT, 10 BBL CEMENT TO SURFACE.
Event	17	Bump Plug	Bump Plug	2/4/2019	20:36:10	USER	8.01	3.10	471.00	123.20	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 500 PSI.
Event	18	Check Floats	Check Floats	2/4/2019	20:38:09	USER	8.02	0.00	574.00	123.30	RELEASED PRESSURE BACK TO TRUCK, FLOATS HELD, 1.5 BBL TO SURFACE.
Event	19	End Job	End Job	2/4/2019	20:52:02	COM4	7.95	1.50	29.00	124.40	
Event	20	Drop Top Plug	Drop Top Plug	2/4/2019	21:12:00	USER	-0.53	0.00	-51.00	179.00	PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANY MAN.
Event	21	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/4/2019	22:00:00	USER					DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	22	Rig-Down Completed	Rig-Down Completed	2/4/2019	22:10:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	23	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/4/2019	22:20:00	USER					DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	24	Crew Leave Location	Crew Leave Location	2/4/2019	22:30:00	USER					THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Extraction Coyote Trails 33S-20-3N Surface Job Chart

