

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS-EBUS**

Date: Wednesday, February 20, 2019

### **Coyote Trails 33S-20-5C Surface**

Job Date: Wednesday, February 06, 2019

Sincerely,

**Bryce Hinsch**

## Legal Notice

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### Disclaimer:

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Coyote Trails 33S-20-5C** 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 35 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 #: 3843097		Quote #:		Sales Order #: 0905467997					
Customer: EXTRACTION OIL & GAS -				Customer Rep: Todd/Hans							
Well Name: COYOTE TRAILS			Well #: 33S-20-5C		API/UWI #: 05-123-45995-00						
Field: WATTENBERG		City (SAP): ERIE		County/Parish: WELD		State: COLORADO					
Legal Description: SW SE-28-1N-68W-1148FSL-2229FEL											
Contractor: ENSIGN DRLG				Rig/Platform Name/Num: ENSIGN 147							
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		1577ft		Job Depth TVD		1605					
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	1605	0	0	
Open Hole Section			13.5				0	1614	0	0	
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		1605		Bottom Plug					
Float Collar	9.625	1		1564		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	575	sack	13.5	1.74	9.2	7	5270
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	121	bbl	8.33				
Cement Left In Pipe		Amount	41 ft		Reason			Shoe Joint	
Mix Water:	pH 7	Mix Water Chloride:	<300 ppm			Mix Water Temperature:	56 °F		
Cement Temperature:	N/A	Plug Displaced by:	8.33 lb/gal F.W			Disp. Temperature:	51 °F		
Plug Bumped?	Yes	Bump Pressure:	460 psi			Floats Held?	Yes		
Cement Returns:	35 bbl	Returns Density:	N/A			Returns Temperature:	N/A		
Comment Plug bumped at calculated displacement, final circulation of 460 psi, released pressure back to the truck, floats held, 1 bbl back, 35 bbl cement to surface.									

## 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)	DS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	2/5/2019	11:00:00	USER					CREW CALLED OUT AT 11:00 2/5/2019 REQUESTED ON LOCATION 15:00 2/5/2019. 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	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/5/2019	11:15:00	USER					DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	3	Crew Leave Yard	Crew Leave Yard	2/5/2019	11:30:00	USER					STARTED JOURNEY MANAGEMENT.
Event	4	Arrive At Loc	Arrive At Loc	2/5/2019	12:00:00	USER					END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 36# 9.625" J-55 @ 1605', 41' SHOE JOINT, 13.5" OPEN HOLE, 8.4 PPG WELL FLUID, FRESH WATER DISPLACEMENT.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	2/5/2019	16:00:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND

											WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	2/5/2019	16:10:00	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	2/5/2019	18:30:00	USER	0.00	0.00	-50.00	0.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	2/5/2019	18:59:36	COM4	0.69	0.00	-13.00	0.00	START JOB DATA RECORDING.
Event	9	Test Lines	Test Lines	2/5/2019	19:01:31	COM4	8.56	0.00	9.00	1.40	PRESSURE TESTED IRON TO 3200 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 830 PSI, 5TH GEAR STALL OUT @ 2240 PSI.
Event	10	Pump Spacer 1	Fresh Water	2/5/2019	19:04:06	COM4	8.53	0.00	-8.00	1.50	PUMP 10 BBL FRESH WATER.
Event	11	Pump Spacer 2	Red Dye	2/5/2019	19:08:41	COM4	8.55	3.10	48.00	9.50	PUMP 10 BBL FRESH WATER WITH RED DYE.
Event	12	Pump Cement	Pump Cement	2/5/2019	19:16:07	COM4	8.51	0.00	-10.00	10.20	PUMP 575 SKS OF SWIFTCEN @ 13.5 LB/GAL, 1.74 YIELD, 9.2 GAL/SK, 178.2 BBLs, TOL @ SURFACE, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Shutdown	Shutdown	2/5/2019	19:44:15	COM4	15.60	0.00	78.00	178.80	SHUTDOWN TO DROP TOP PLUG.
Event	14	Drop Top Plug	Drop Top Plug	2/5/2019	19:46:26	COM4	15.43	0.00	-13.00	178.80	TOP PLUG LEFT PLUG CONTAINER, VERIFIED BY COMPANYMAN.
Event	15	Pump Displacement	Pump Displacement	2/5/2019	19:46:31	COM4	15.43	0.00	-13.00	178.80	BEGIN CALCULATED



DISPLACEMENT OF 121 BBLS WITH FRESH WATER.											
Event	16	Cement Returns to Surface	Cement Returns to Surface	2/5/2019	20:02:03	USER	7.83	5.00	494.00	101.20	CEMENT RETURNED TO SURFACE 86 BBL INTO DISPLACEMENT, 35 BBL CEMENT TO SURFACE.
Event	17	Bump Plug	Bump Plug	2/5/2019	20:08:55	COM4	7.86	0.00	818.00	122.60	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 460 PSI.
Event	18	Check Floats	Check Floats	2/5/2019	20:09:13	USER	7.86	0.00	895.00	122.60	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, RECIEVED 1 BBL BACK.
Event	19	End Job	End Job	2/5/2019	20:10:17	COM4	7.82	0.00	-12.00	0.00	END JOB DATA RECORDING.
Event	20	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	2/5/2019	20:20:00	USER	7.84	10.00	272.00	12.20	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	21	Rig-Down Completed	Rig-Down Completed	2/5/2019	20:40:00	USER	-0.65	0.00	-22.00	36.10	ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	22	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	2/5/2019	20:45:00	USER					DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	23	Crew Leave Location	Crew Leave Location	2/5/2019	21:00:00	USER					THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Extraction Coyote Trails 33S-20-5C Surface Job Chart

