

HALLIBURTON

iCem[®] Service

EXTRACTION

Jesser 3E-10-3N Surface

Job Date: Wednesday, November 01, 2017

Sincerely,
Ryan Keeran

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1.0 Cementing Job Summary

1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services on the **Jesser 3E-10-3N** 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.

31 bbls of cement 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 #: 3830617		Quote #:		Sales Order #: 0904409190					
Customer: EXTRACTION OIL & GAS -				Customer Rep: LARRY SIEGEL							
Well Name: JESSER			Well #: 3E-10-3N		API/UWI #: 05-123-45666-00						
Field: WATTENBERG		City (SAP): BERTHOUD		County/Parish: WELD		State: COLORADO					
Legal Description: NW SW-3-4N-68W-2314FSL-396FWL											
Contractor: PATTERSON-UTI ENERGY				Rig/Platform Name/Num: PATTERSON 341							
Job BOM: 7521 7521											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HX38199				Srv Supervisor: Bryce Muir							
Job											
Formation Name											
Formation Depth (MD)		Top		Bottom							
Form Type				BHST							
Job depth MD		1593ft		Job Depth TVD							
Water Depth				Wk Ht Above Floor		2 FT					
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	1593	0	0	
Open Hole Section			13.5				0	1610	0	0	
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	1	TOPCO	1593		Bottom Plug	9.625				
Float Collar	9.625	1	TOPCO	1551		SSR plug set	9.625				
Insert Float	9.625					Plug Container	9.625	1	HES		
Stage Tool	9.625					Centralizers	9.625	18	TOPCO		
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	SWIFTCEN (TM) SYSTEM	550	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	120	bbl	8.33				
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	
Comment: WE ARRIVED ON LOCATION AT 2100 HOURS ON 10/31/2017. WE SPOTTED IN OUR EQUIPMENT AND RIGGED UP OUR IRON. WE WAITED ON LOCATION UNTIL THE CASING WAS RAN. AFTER THE CASING WAS LANDED WE RIGGED UP THE PLUG CONTAINER AND LOADED THE PLUG. WE HELD A SAFETY MEETING BEFORE WE STARTED THE JOB. WE TESTED OUR IRON TO 3000 PSI. WE THEN PUMPED 10 BBLS DYED SPACER FOLLOWED BY 170 BBLS OF CEMENT. TOP PLUG WAS DROPPED BY BRYCE MUIR AND WITNESSED BY COMPANY REP. WE PUMPED 120 BBLS OF DISPLACEMENT. WE GOT 10 BBLS DYE SPACER TO SURFACE FOLLOWED BY 31 BBLS OF GOOD CEMENT. WE LANDED THE PLUG AT 120 BBLS DISPLACEMENT PUMPED. WE LANDED THE PLUG AT 310 PSI AND PRESSURED UP TO 945 PSI. HELD FOR ONE MINUTE AND CHECKED FLOATS. FLOATS HELD AND WE GOT ½ BBL BACK TO THE RCM.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Driv-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	10/31/2017	18:00:00	USER				CREW CALLED OUT TO PERFORM SURFACE CASING JOB FOR EXTRACTION OIL AND GAS.
Event	2	Other	Other	10/31/2017	19:00:00	USER				LOAD UP ALL MATERIALS AND EQUIPMENT REQUIRED FOR THE JOB. DOWNLOAD AND PRINT OFF ALL REQUIRED PAPERWORK.
Event	3	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/31/2017	19:45:00	USER				DISCUSS HAZARDS ASSOCIATED WITH DRIVING TRUCKS TO RIG LOCATION. DISCUSS CONVOY ORDER, SAFEST ROUTE OF TRAVEL, AND PLACES TO STOP IF NEEDED.
Event	4	Depart from Service Center or Other Site	Depart from Service Center or Other Site	10/31/2017	20:00:00	USER				
Event	5	Arrive at Location from Service Center	Arrive at Location from Service Center	10/31/2017	21:00:00	USER				
Event	6	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	10/31/2017	21:15:00	USER				ASSESS LOCATION TO IDENTIFY POTENTIAL HAZARDS AND THE BEST WAY TO SPOT PUMPING EQUIPMENT. SPOT EQUIPMENT.
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/31/2017	21:30:00	USER				DISCUSS HAZARDS ASSOCIATED WITH RIGGING UP AND PACKING IRON ON

A RIG LOCATION.										
Event	8	Rig-Up Equipment	Rig-Up Equipment	10/31/2017	22:00:00	USER				
Event	9	Other	Other	10/31/2017	22:30:00	USER				RIG STILL DRILLING AND RUNNING CASING.
Event	10	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/1/2017	09:45:00	USER	16.30	0.00	0.00	DISCUSS HES SAFETY AND JOB PROCEDURES WITH RIG CREW AND COMPANY REPS. IDENTIFY CLOSEST HOSPITALS, MUSTER AREAS, AND FIRST AID LOCATIONS. DISCUSS JOB ORDER OF OPERATIONS.
Event	11	Rig-Up Equipment	Rig-Up Equipment	11/1/2017	10:00:00	USER	18.30	0.00	0.00	RIG UP PLUG CONTAINER AND PUMPING LINES ON THE RIG FLOOR. PRE LOAD 9.625" TOP PLUG. PLUG LOADED BY BRYCE MUIR AND WITNESSED BY THE COMPANY REP.
Event	12	Start Job	Start Job	11/1/2017	10:14:36	COM6	-20.70	8.40	0.00	
Event	13	Other	Other	11/1/2017	10:15:00	USER	-20.70	8.40	0.00	PUMP 3 BBLS FRESH WATER TO FILL PUMPS AND LINES.
Event	14	Test Lines	Test Lines	11/1/2017	10:17:16	COM6	9.30	8.38	0.00	CONDUCT A LOW PRESSURE TEST TO 500 PSI TO TEST RCM PRESSURE KICKOUTS. THEN CONDUCTED A HIGH PRESSURE TEST TO 3000 PSI TO TEST PUMPS AND LINES.
Event	15	Pump Spacer 1	Pump Spacer 1	11/1/2017	10:24:50	COM6	-7.70	8.40	0.00	PUMPED 10 BBLS OF RED DYED SPACER. SPACER PUMPED AT 3.5 BPM WITH A CIRCULATING PRESSURE OF 125 PSI. GOOD WELL CIRCULATION.
Event	16	Pump Cement	Pump Cement	11/1/2017	10:28:25	COM6	52.30	8.35	3.30	PUMPED 170 BBLS OF

PRIMARY CEMENT. 550 SACKS @ 13.5 #/GAL 1.74 CUFT/SK 9.2 GAL/SK. WE PUMPED CEMENT AT 7.5 BPM WITH A CIRCULATING PRESSURE OF 425 PSI. WE HAD GREAT WELL CIRCULATION.

Event	17	Check Weight	Check weight	11/1/2017	10:31:14	COM6	389.30	13.56	7.50	CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	18	Check Weight	Check weight	11/1/2017	10:46:47	COM6	407.30	13.51	7.50	CEMENT VERIFIED BY PRESSURIZED MUD BALANCE.
Event	19	Shutdown	Shutdown	11/1/2017	10:53:20	COM6	7.30	14.07	0.00	
Event	20	Drop Top Plug	Drop Top Plug	11/1/2017	10:53:26	COM6	-2.70	14.05	0.00	DROP 9.625" TOP PLUG. PLUG DROPPED BY BRYCE MUIR AND WITNESSED BY THE COMPANY REP.
Event	21	Pump Displacement	Pump Displacement	11/1/2017	10:54:08	COM6	-14.70	14.07	0.00	PUMPED 120 BBLS OF FRESH WATER DISPLACEMENT. WE USED THE FIRST 10 BBLS OF DISPLACEMENT TO WASH UP ON TOP OF THE PLUG. WE PUMPED DISPLACEMENT AT 7.5 BPM WITH A CIRCULATING PRESSURE OF 180 PSI.
Event	22	Displ Reached Cmnt	Displ Reached Cmnt	11/1/2017	11:02:00	USER	162.30	8.05	7.50	THE PLUG CAUGHT CEMENT AT 40 BBLS DISPLACEMENT PUMPED. WE GOT GOOD DYED SPACER TO SURFACE AT 80 BBLS OF DISPLACEMENT PUMPED. AT 90 BBLS OF DISPLACEMENT PUMPED WE GOT GOOD CEMENT TO

										SURFACE. WE GOT 31 BBLS OF CEMENT TO SURFACE.
Event	23	Bump Plug	Bump Plug	11/1/2017	11:15:34	COM6	891.30	8.09	2.60	SLOWED RATE TO 3 BPM TO LAND THE PLUG. WE LANDED THE PLUG AT 310 PSI AND PRESSURED UP TO 945 PSI. HELF FOR ONE MINUTES.
Event	24	Check Floats	Check Floats	11/1/2017	11:15:45	USER	964.30	8.12	0.00	FLOATS HELD. WE GOT 1/2 BBL BACK TO THE RCM.
Event	25	End Job	End Job	11/1/2017	11:16:46	COM6	-20.70	8.07	0.00	
Event	26	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/1/2017	11:30:00	USER				DISCUSS HAZARDS ASSOCIATED WITH RIGGING DOWN AND PACKING IRON ON LOCATION.
Event	27	Rig-Down Equipment	Rig-Down Equipment	11/1/2017	11:45:00	USER				
Event	28	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/1/2017	12:15:00	USER				DISCUSS HAZARDS ASSOCIATED WITH DRIVING TRUCKS BACK TO THE SERVICE CENTER. DISCUSSED CONVOY ORDER, ROUTE OF TRAVEL, AND PLACES TO STOP IF NEEDED.
Event	29	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	11/1/2017	12:30:00	USER				JOB WAS COMPLETED SAFELY BY BRYCE MUIR AND CREW. THANK YOU FOR USING HALLIBURTON ENERGY SERVICES. STAY SAFE OUT HERE.

3.0 Job Chart

3.1 Job Chart

