

The Road to Excellence Starts with Safety

Sold To #: 375989		Ship To #: 3899647		Quote #:		Sales Order #: 0905797906				
Customer: CONFLUENCE DJ LLC-EBUS					Customer Rep: ARBID MOSNES					
Well Name: 70 RANCH			Well #: 10-14-1L			API/UWI #: 05-123-47593-00				
Field: WATTENBERG		City (SAP): KERSEY		County/Parish: WELD			State: COLORADO			
Legal Description: SW SW-3-4N-63W-260FSL-1261FWL										
Contractor: ENSIGN DRLG					Rig/Platform Name/Num: ENSIGN 140					
Job BOM: 7523 7523										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HX38199					Srv Supervisor: Nikolaus Kornafel					
Job										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type					BHST					
Job depth MD		16335ft			Job Depth TVD					
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	1580		0
Casing		5.5	4.778	20			0	16336		0
Open Hole Section			13.5				1587	1587	0	0
Open Hole Section			8.5				1587	16347	0	6288
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5	1		16,336		Top Plug	5.5	1		
Float Shoe	5.5	1		16,333		Bottom Plug	5.5	1		
Float Collar	5.5	1		16,331						
Insert Float	5.5					Plug Container	5.5	1	HES	
Stage Tool	5.5					Centralizers	5.5			
Fluid Data										
Stage/Plug #: 1										

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	DIESEL	DIESEL	40	bbbl	8.3				
2	SPACER	SBM FDP-C1337-18 CEMENT SPACER SYS	100	bbbl	12	3.25	20.0	5	
3	ElastiCem	ELASTICEM (TM) SYSTEM	1960	sack	14.4	1.7	7.3	8	14,347
4	MMCR Displacement	MMCR Displacement	30	bbbl	8.34				
5	Displacement	Displacement	327	bbbl	8.34				
Cement Left In Pipe									
Amount		0 ft			Reason			Wet Shoe	
Mix Water: pH 7		Mix Water Chloride: 0 ppm			Mix Water Temperature: 69 °F				
Cement Temperature: N/A		Plug Displaced by: 8.33 lb/gal			Disp. Temperature: 69 °F				
Plug Bumped? Yes		Bump Pressure: 2,450 psi MPa			Floats Held? Yes				
Cement Returns: 0 bbl		Returns Density: N/A			Returns Temperature: N/A				
<p>Comment THE RIG PUMPED 40 BBLS OF DIESEL SPACER BEFORE THE JOB. HALLIBURTON THEN PUMPED 100 BBLS OF FDP SPACER FOLLOWED BY 593 BBLS OF PRIMARY CEMENT. WASHED OUR PUMPS AND LINES AND THEN DROPPED THE BOTTOM PLUG FOLLOWED BY 5 BBLS OF MICRO MATRIX CEMENT RETARTED WATER. THEN DROPPED THE TOP PLUG AND DISPLACED WITH 357 BBLS OF WATER WITH MMCR IN THE FIRST 20 BBLS FOLLOWING THE TOP PLUG AND CLA WEB THROUGHOUT THE REST OF DISPLACEMENT. FLOATS HELD. 4.0 BBLS BACK. 15 BBLS OF SPACER TO SURFACE</p>									

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>	Comments
Event	1	Call Out	Call Out	6/28/2019	17:00:00	USER				CREW CALLED OUT AT 17:00, REQUESTED ON LOCATION 23:00. CREW PICKED UP CEMENT, CHEMICALS, AND PLUG CONTAINER FROM FT. LUPTON, CO. BULK 660 10867431, AND PUMP 11512092.
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	6/28/2019	21:30:00	USER				CREW DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW.
Event	3	Crew Leave Yard	Crew Leave Yard	6/28/2019	21:45:00	USER				STARTED JOURNEY MANAGEMENT.
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	6/28/2019	22:45:00	USER				END JOURNEY MANAGEMENT. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING- 9.625" 36 LB/FT @ 1,579, 5.5" CASING: 20 LB/FT TOTAL 16,335', 8.5" HOLE, TD 16,16347', SHOE TRAC- 3', TVD- 6,288'. PUMP FRESH WATER DISPLACEMENT 362 BBLS. CASING LANDED @ 00:30 06/29/2019. RIG CIRCULATED BOTTOMS UP.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	6/28/2019	23:00:00	USER				HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP, AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	6/28/2019	23:15:00	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	6/29/2019	03:15:00	USER	8.30	0.00	-30.00	SAFETY MEETING WITH HALLIBURTON, AND RIG PERSONNEL. CREW COMMUNICATED POTENTIAL SAFETY HAZARDS, AND JOB DETAILS.
Event	8	Start Job	Start Job	6/29/2019	03:39:39	COM5	8.30	0.00	-31.00	BEGIN RECORDING JOB DATA.
Event	9	Test Lines	Test Lines	6/29/2019	03:52:02	COM5	8.31	0.00	411.00	PRESSURE TESTED IRON TO 6,000 PSI. KICKOUTS SET @ 500 PSI, KICKED OUT @ 900 PSI, 5TH GEAR STALL OUT @ 2,100 PSI.
Event	10	Pump Spacer 1	Pump Spacer 1	6/29/2019	04:01:12	COM5	8.31	0.00	28.00	PUMP 100 BBLS OF FDP SPACER @ 12.0 LB/GAL, 3.25 FT3/SK, 20.0 GAL/SK 10 GALLONS D-AIR. DENSITY

VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 6 BBL/MIN @ 747 PSI.

Event	11	Check Weight	Check Weight	6/29/2019	04:09:01	COM5	12.19	6.10	725.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	12	Check Weight	Check Weight	6/29/2019	04:13:06	COM5	12.28	6.10	606.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Pump Cement	Pump Cement	6/29/2019	04:21:00	COM5	11.93	6.00	384.00	PUMPED 1960 SKS OF ELASTICEM @ 14.4 LB/GAL, 1.7 FT3/SK, 7.3 GAL/SK. 593 BBLs, TOC @ 1758.32'. DENSITY VERIFIED BY PRESSURIZED MUD SCALES. PUMP RATE 8 BBL/MIN @ 880 PSI.
Event	14	Check Weight	Check Weight	6/29/2019	04:23:56	COM5	14.22	6.00	616.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	15	Check Weight	Check Weight	6/29/2019	04:27:34	COM5	14.21	8.10	821.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	16	Check Weight	Check Weight	6/29/2019	04:46:02	COM5	14.44	8.10	667.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Check Weight	Check Weight	6/29/2019	04:51:17	COM5	14.37	8.20	734.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	18	Check Weight	Check Weight	6/29/2019	04:56:35	COM5	14.51	8.20	884.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	19	Check Weight	Check Weight	6/29/2019	05:17:31	COM5	14.35	8.10	815.00	DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	20	Shutdown	Shutdown	6/29/2019	05:46:13	COM5	15.08	0.00	71.00	SHUTDOWN TO WASH LINES.
Event	21	Drop Top Plug	Drop Top Plug	6/29/2019	05:59:40	COM5	2.20	0.00	69.00	BOTTOM PLUG LEFT CONTAINER, VERIFIED BY CO. MAN.
Event	22	Pump Displacement	Pump Displacement	6/29/2019	05:59:44	COM5	6.21	0.00	72.00	PUMPED 5 BBLs OF MMCR WATER AFTER THE BOTTOM PLUG THEN SHUTDOWN TO DROP THE TOP PLUG.
Event	23	Pump Displacement	Pump Displacement	6/29/2019	06:04:32	COM5	8.41	0.00	77.00	BEGIN CALCULATED DISPLACEMENT OF 357 BBLs WITH FRESH WATER. 342 BBLs INTO DISPLACEMENT SPACER BACK TO SURFACE. 15 BBLs SPACER TO SURFACE.
Event	24	Bump Plug	Bump Plug	6/29/2019	07:06:04	COM5	8.40	0.00	2595.00	BUMPED PLUG AT CALCULATED DISPLACEMENT 357 BBLs AWAY. FINAL CIRCULATING PRESSURE WAS 2,450 PSI. BROUGHT PRESSURE UP TO 3,450 PSI.
Event	25	Pressure Up Well	Pressure Up Well	6/29/2019	07:07:00	USER	8.41	1.60	2817.00	BROUGHT PRESSURE UP TO 3,560 PSI THE OPEN THE BOTTOM PLUG AND PUMPED A 5 BBL WET SHOE AND LANDED THE TOP PLUG
Event	26	Bump Plug	Bump Plug	6/29/2019	07:08:00	COM5	8.43	0.00	3189.00	BUMPED THE TOP PLUG AFTER PUMPING THE 5 BBL WET SHOE. BROUGHT PRESSURE TO 3,100 PSI
Event	27	Other	Other	6/29/2019	07:13:41	COM5	8.42	0.00	3031.00	RELEASED PRESSURE, FLOATS HELD, 4.0 BBLs BACK.

Event	28	End Job	End Job	6/29/2019	07:15:15	COM5	8.38	0.00	54.00	STOP RECORDING JOB DATA.
Event	29	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	6/29/2019	07:20:00	USER	8.39	9.60	62.00	DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	30	Rig-Down Completed	Rig-Down Completed	6/29/2019	08:45:00	USER				ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL, AND LOCATION WAS CLEAN.
Event	31	Safety Meeting - Departing Location	Safety Meeting - Departing Location	6/29/2019	09:30:00	USER				CREW DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW. THANK YOU FOR USING HALLIBURTON – NICK KORNAFEL AND CREW.

3.0 Attachments

3.1 70 Ranch 10-14-1L Production – Job Chart

