

HALLIBURTON

iCem[®] Service

EXTRACTION OIL & GAS-EBUS

Jesser 3E-10-5N Surface

Job Date: Thursday, November 02, 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-10-5N** 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.

32 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 #: 3830606	Quote #:	Sales Order #: 0904414146
Customer: EXTRACTION OIL & GAS -		Customer Rep: Larry Siegel	
Well Name: JESSER		Well #: 3E-10-5N	API/UWI #: 05-123-45660-00
Field: WATTENBERG	City (SAP): BERTHOUD	County/Parish: WELD	State: COLORADO
Legal Description: NW SW-3-4N-68W-2314FSL-436FWL			
Contractor: PATTERSON-UTI ENERGY		Rig/Platform Name/Num: PATTERSON 341	
Job BOM: 7521 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Steven Markovich	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type	BHST		
Job depth MD	1599ft		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	0	9.625	8.921	36	8 RD	J-55	0	1599	0	0
Open Hole Section			13.5				0	1600	0	0

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625			1599	Top Plug	9.625		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 ft ³ /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	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		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 : 32bbls of 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 <i>(ppg)</i>	DS Pump Press <i>(psi)</i>	Comb Pump Rate <i>(bbl/min)</i>	Comments
Event	1	Arrive At Loc	Arrive At Loc	11/2/2017	00:00:00	USER				Arrived on location rig was moving.
Event	2	Call Out	Call Out	11/2/2017	01:00:00	USER				Job called out with an on location time of 07:00
Event	3	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	11/2/2017	07:00:00	USER				JSA and hazard hunt with HES crew
Event	4	Rig-Up Equipment	Rig-Up Equipment	11/2/2017	07:30:00	USER				Rigged up HES equipment and lines.
Event	5	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/2/2017	11:30:00	USER	8.33	16.00	0.00	JSA with HES and rig crew on job procedure.
Event	6	Start Job	Start Job	11/2/2017	11:48:57	COM4	0.00	3.00	0.00	TP 1599' FC 1557' 9 5/8" 36# Surface casing 13 1/2" openhole.
Event	7	Test Lines	Test Lines	11/2/2017	11:51:45	COM4	8.52	36.00	0.00	check kick outs with 500psi test then bring pressure up to 2500psi and hold
Event	8	Pump Spacer 1	Pump Spacer 1	11/2/2017	11:55:11	COM4	8.51	13.00	0.00	Pump H2O to break circulation. after 32bbls away we had circulation.
Event	9	Pump Spacer 2	Pump Spacer 2	11/2/2017	12:06:14	COM4	8.53	273.00	3.60	Pump 10bbls of red dye.
Event	10	Pump Lead Cement	Pump Lead Cement	11/2/2017	12:09:27	COM4	8.55	96.00	1.50	Pump 170.4bbls (550sks) of 13.5ppg 1.74yield Cement. Pumped at 7.5bbl/min 460psi
Event	11	Check Weight	Check weight	11/2/2017	12:16:31	COM4	13.47	355.00	7.00	Weight verified by pressurized scales.

Event	12	Check Weight	Check weight	11/2/2017	12:32:49	COM4	13.47	331.00	6.30	Weight verified by pressurized scales.
Event	13	Shutdown	Shutdown	11/2/2017	12:37:07	USER	13.44	337.00	6.50	
Event	14	Drop Top Plug	Drop Top Plug	11/2/2017	12:39:13	COM4	17.54	14.00	0.00	Plug pre loaded into HES head. Plug loaded and dropped in front of company rep.
Event	15	Pump Displacement	Pump Displacement	11/2/2017	12:39:36	COM4	17.55	14.00	0.00	Pump 120bbbls of H2O. Pumped at 7.5bbbl/min and slowed down with pressure increase. Red dye to surface at 68bbbls away, cement to surface at 88bbbls away bringing 32bbbls of cement to surface
Event	16	Bump Plug	Bump Plug	11/2/2017	13:03:04	COM4	8.32	501.00	2.80	Bumped plug at 120bbbls away, final lifting pressure was 501psi. Took pressure 500 over and held. Opened release line to check floats and got back .5bbbl.
Event	17	End Job	End Job	11/2/2017	13:05:10	COM4	8.31	6.00	0.00	Thank you Steve Markovich and crew.

3.0 Job Chart

3.1 Job Chart

