

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3925347	Quote #:	Sales Order #: 0906793266
Customer: NOBLE ENERGY INC-EBUS		Customer Rep: John Drahota	
Well Name: BECKER		Well #: D17-745	API/UWI #: 05-123-48934-00
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO
Legal Description: NW SE-5-3N-64W-1816FSL-1382FEL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 517	
Job BOM: 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX41066		Srvc Supervisor: Thomas Haas	
Job			

Formation Name	
Formation Depth (MD)	Top <input type="text"/> Bottom <input type="text"/>
Form Type	BHST 220 degF
Job depth MD	15086ft Job Depth TVD 6867
Water Depth	Wk Ht Above Floor 5'
Perforation Depth (MD)	From <input type="text"/> To <input type="text"/>

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			0	1925	0	1925
Casing	0	5.5	4.892	17			0	15086	0	6867
Open Hole Section			8.5				1935	15101	1925	6867

Tools and Accessories									
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make
Float Shoe	5.5	1	HES	15086		Top Plug	5.5	1	HES
Float Collar	5.5	1	HES	15039		Bottom Plug	5.5	2	HES

Fluid Data										
Stage #: 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	Tuned Prime	TUNED PRIME CEMENT SPACER	120	bbl	11.5	3.91	24.55	8	4223	
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	ElastiCem	ELASTICEM (TM) SYSTEM	140	sack	13.2	1.6	7.63	8	1068	
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	ElastiCem w/ SCBL	ELASTICEM (TM) SYSTEM	765	sack	13.2	1.67	8.03	8	6143	
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	
4	NeoCem NT1	NeoCem TM	867	sack	13.2	2.04	9.79	8	8488	
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	
5	Displacement	Displacement	349	bbl	8.33					
Cement Left In Pipe		Amount	47 ft		Reason			Shoe Joint		
Mix Water:		pH 7	Mix Water Chloride:		<300 ppm		Mix Water Temperature:			58 °F
Cement Temperature:			Plug Displaced by:		8.4lb/gal TreatH2O		Disp. Temperature:			53 °F
Plug Bumped?		Yes	Bump Pressure:		2330 psi		Floats Held?			Yes
Cement Returns:			Returns Density:				Returns Temperature:			
Comment Plug bumped at calculated displacement, final circulating pressure of 2330 psi, held 5 min casing at 2770 psi, released pressure to the truck, floats held, 4.5 bbl back. Interface returned to surface 285 bb into displacement, turned to good spacer 320 bbl into displacement, 64 bbl back total.										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DS Pump Press <i>(psi)</i>	DH Density <i>(ppg)</i>	Comb Pump Rate <i>(bbl/min)</i>	Pump Stg Tot <i>(bbl)</i>	Comments
Event	1	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/3/2020	15:00:00	USER					DISCUSSED ROUTES, HAZARDS, AND COMMUNICATION WITH CREW
Event	2	Crew Leave Yard	Crew Leave Yard	11/3/2020	15:30:00	USER					STARTED JOURNEY MANAGEMENT.
Event	3	Arrive At Loc	Arrive At Loc	11/3/2020	16:00:00	USER					END JOURNEY MANAGEMENT. CREW EARLY FROM PREVIOUS JOB. MEET WITH CO. MAN TO DISCUSS JOB; SURFACE CASING: 9.625" 36# @ 1925', CASING: 5.5" 17# @ 15086', 47' SHOE JOINT, 8.5" OPEN HOLE, TVD @ 6867', 9.8 PPG WELL FLUID, PACKER FLUID DISPLACEMENT.
Event	4	Call Out	Call Out	11/3/2020	17:00:00	USER					CREW CALLED OUT AT 17:00 11/32020, REQUESTED ON LOCATION 23:00 11/3/2020. CREW PICKED UP CEMENT, CHEMICALS (50 GAL D-AIR, 10 GAL MMCR), 100 LBS SUGAR, FROM FORT LUPTON, CO. BULK 660: 111273333/10784082, PUMP ELITE: 12644845/11645460.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	11/3/2020	20:30:00	USER					HAZARD HUNT. DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH LOCATION, RIG UP AND WEATHER.
Event	6	Rig-Up Equipment	Rig-Up Equipment	11/3/2020	20:40:00	USER					CREW STAGED EQUIPMENT AND RIGGED UP BULK, IRON, AND WATER HOSES TO PERFORM JOB.

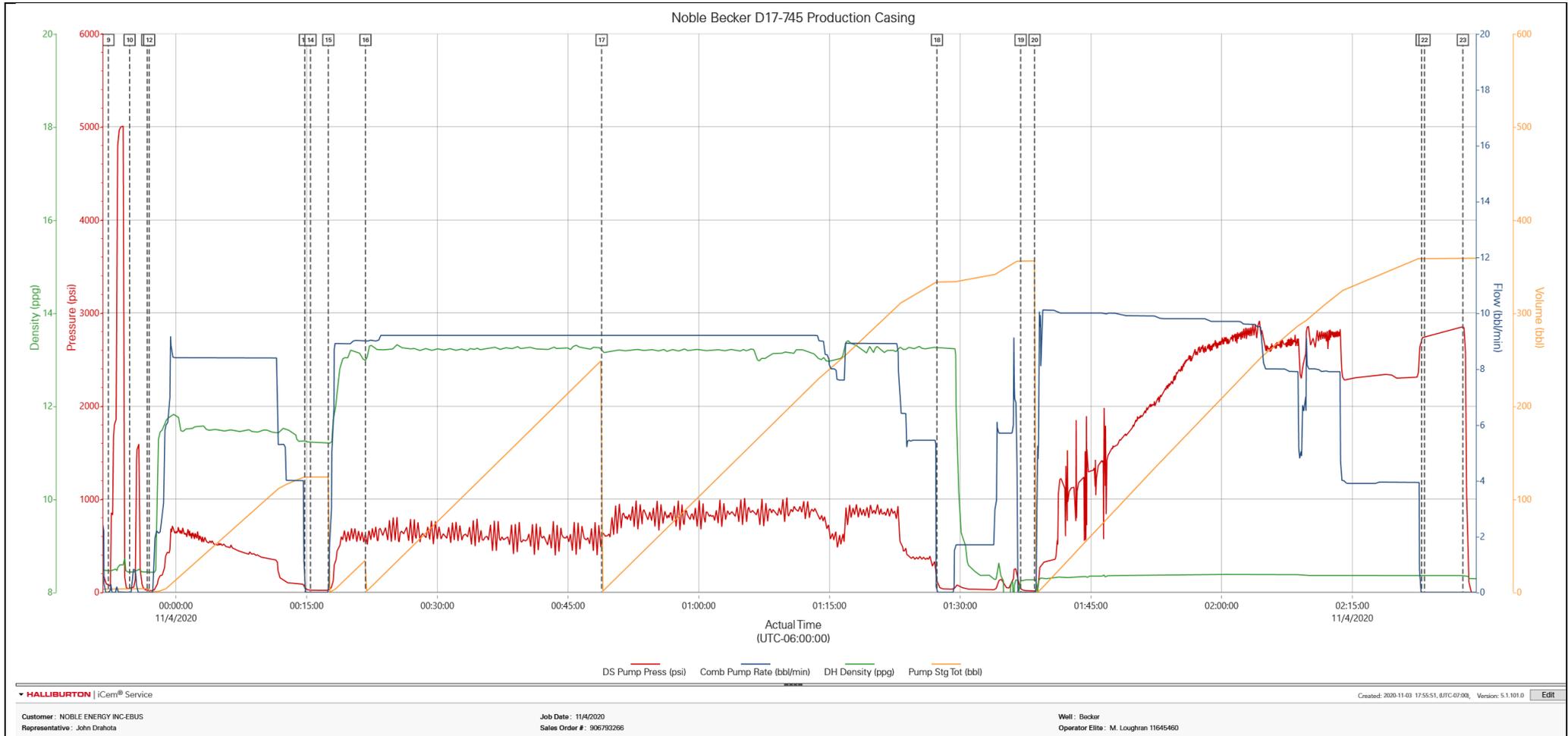
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	11/3/2020	23:00:00	USER	-9.70	8.39	0.00	0.00	MEETING WITH HALLIBURTON AND RIG PERSONNEL. COMMUNICATED POTENTIAL SAFETY HAZARDS AND JOB DETAILS.
Event	8	Start Job	Start Job	11/3/2020	23:49:52	COM8	-18.70	8.44	0.00	0.00	START JOB DATA RECORDING.
Event	9	Test Lines	Test Lines	11/3/2020	23:52:15	COM8	71.30	8.46	0.00	3.60	KICKOUTS SET @ 500 PSI, KICKED OUT @ 880 PSI, 5TH GEAR STALL OUT @ 1800 PSI. PRESSURE TESTED IRON TO 4800.
Event	10	Test Lines	Test I-Bop	11/3/2020	23:54:41	COM8	45.30	8.44	0.00	3.60	TESTED I BOP TO 1600 PSI.
Event	11	Drop Bottom Plug	Drop Bottom Plug	11/3/2020	23:56:42	COM8	20.30	8.44	0.00	4.00	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	12	Pump Spacer 1	Pump Spacer 1	11/3/2020	23:56:56	COM8	18.30	8.44	0.00	4.00	PUMP 120 BBLS OF TUNED SPACER @ 11.5 LB/GAL, ADDED 30 GAL D-AIR, DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	13	Shutdown	Shutdown	11/4/2020	00:14:47	COM8	51.30	11.26	0.00	124.00	SHUTDOWN TO DROP 2ND BOTTOM PLUG.
Event	14	Drop Bottom Plug	Drop Bottom Plug	11/4/2020	00:15:26	COM8	22.30	11.23	0.00	124.00	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	15	Pump Cap Cement	Pump Cap Cement	11/4/2020	00:17:29	COM8	21.30	11.21	0.00	124.00	PUMP 140 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.60 YIELD, 7.63 GAL/SK, 39.9 BBLS, CALCULATED TOC @ 1000', DENSITY VERIFIED BY PRESSURIZED MUD SCALES. ADDED 10 GAL OF D-AIR.

Event	16	Pump Lead Cement	Pump Lead Cement	11/4/2020	00:21:45	COM8	632.30	12.98	9.00	34.60	PUMP 765 SKS OF ELASTICEM @ 13.2 LB/GAL, 1.67 YIELD, 8.03 GAL/SK, 227.5 BBLs, CALCULATED TOL @ 1833', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	17	Pump Tail Cement	Pump Tail Cement	11/4/2020	00:48:51	COM8	524.30	13.22	9.20	249.40	PUMP 867 SKS OF NEOCEM @ 13.2 LB/GAL, 2.04 YIELD, 9.79 GAL/SK, 315 BBLs, CALCULATED TOT @ 7392', DENSITY VERIFIED BY PRESSURIZED MUD SCALES.
Event	18	Shutdown	Shutdown	11/4/2020	01:27:20	COM8	125.30	13.24	0.00	333.40	SHUTDOWN TO CLEAN PUMPS/LINES AND DROP TOP PLUG.
Event	19	Drop Top Plug	Drop Top Plug	11/4/2020	01:36:56	COM8	37.30	8.24	0.00	356.00	PLUG WAS LOADED DIRECTLY INTO LANDING JOINT, VERIFIED BY COMPANY MAN.
Event	20	Pump Displacement	Pump Displacement	11/4/2020	01:38:32	COM8	15.30	8.27	0.00	356.00	BEGIN CALCULATED DISPLACEMENT 349 BBL FRESH WATER. 10 GAL MMCR IN FIRST 20 BBL, LAST 40 BBL WITH FRESH WATER. ADDED 10 GAL OF D-AIR.
Event	21	Bump Plug	Bump Plug	11/4/2020	02:22:57	COM8	2727.30	8.37	0.00	358.90	PLUG BUMPED AT CALCULATED DISPLACEMENT, FINAL CIRCULATING PRESSURE OF 2330 PSI. INTERFACE TO SURFACE AT 285 BBL INTO DISPLACEMENT, GOOD SPACER 320 BBL INTO DISPLACEMENT, 64 BBL BACK TOTAL.

Event	22	Other	Casing Test	11/4/2020	02:23:17	USER	2746.30	8.37	0.00	358.90	5 MIN CASING TEST AT 2770 PSI.
Event	23	Check Floats	Check Floats	11/4/2020	02:27:41	USER	2853.30	8.36	0.00	358.90	RELEASED PRESSURE BACK TO THE TRUCK, FLOATS HELD, 4.5 BBL TO THE TRUCK.
Event	24	End Job	End Job	11/4/2020	02:29:55	COM8	-17.70	8.29	0.00	0.00	END JOB DATA RECORDING.
Event	25	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	11/4/2020	03:30:00	USER					DISCUSSED POSSIBLE HAZARDS ASSOCIATED WITH WEATHER, LOCATION AND RIGGING DOWN IRON AND HOSES.
Event	26	Rig-Down Completed	Rig-Down Completed	11/4/2020	04:00:00	USER					ALL HALLIBURTON ITEMS WERE STOWED FOR TRAVEL.
Event	27	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	11/4/2020	04:20:00	USER					DISCUSSED ROUTES HAZARDS AND COMMUNICATION WITH CREW.
Event	28	Crew Leave Location	Crew Leave Location	11/4/2020	04:30:00	USER					THANK YOU FOR USING HALLIBURTON - THOMAS HAAS AND CREW.

3.0 Attachments

3.1 Job Chart



HALLIBURTON | iCem® Service

Created: 2020-11-03 17:55:51, UTC-07:00, Version: 5.1.101.0 Edit

Customer: NOBLE ENERGY INC-EBUS
Representative: John Drahotka

Job Date: 11/4/2020
Sales Order #: 906793266

Well: Becker
Operator Elite: M. Loughran 11645460