

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 3919132		Quote #:		Sales Order #: 0906397360					
Customer: NOBLE ENERGY INC-EBUS				Customer Rep: DAVE NEILSEN							
Well Name: GUTTERSEN			Well #: D34-759		API/UWI #: 05-123-48552-00						
Field: WATTENBERG		City (SAP): KEENESBURG		County/Parish: WELD		State: COLORADO					
Legal Description: SE SW-22-3N-64W-1015FSL-1515FWL											
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 321							
Job BOM: 7523 7523											
Well Type: HORIZONTAL OIL											
Sales Person: HALAMERICA\HB31357				Srv Supervisor: JOSHUA WASHBURN							
Job											
Formation Name											
Formation Depth (MD)		Top				Bottom					
Form Type						BHST					
Job depth MD		17472ft				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	1965	0	0	
Casing		5.5	4.892	17			0	17472	0	0	
Open Hole Section			8.5				1965	17492	0	0	
Tools and Accessories											
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make		
Guide Shoe	5.5			17472		Top Plug	5.5		HES		
Float Shoe	5.5					Bottom Plug	5.5		HES		
Float Collar	5.5					SSR plug set	5.5		HES		
Insert Float	5.5					Plug Container	5.5		HES		
Stage Tool	5.5					Centralizers	5.5		HES		
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	Tuned Prime Spacer	SBM FDP-C1337-18 CEMENT SPACER SYS			120	bbl	11.5	3.87	24.42		4251
1 lbm/bbl		FE-2, 2000 LB BAG - (1005549)									
3.50 lbm/bbl		SEM-94P, 35 LB SACK - (1023987)									

3.50 lbm/bbl		SEM-93P, 35 LB SACK - (1023977)							
145.2420 lbm/bbl		BARITE, BULK (100003681)							
0.10 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)							
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	1.65	8.4	8	1176
0.30 %		SCR-100, 1200 LB BAG - (1126328)							
8.40 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	ElastiCem w/ SCBL	ELASTICEM (TM) SYSTEM	496	sack	13.2	1.67	8.05	8	3992
0.18 %		SCR-100, 1200 LB BAG - (1126328)							
8.28 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
4	NeoCem NT1	NeoCem TM	1173	sack	13.2	2.04	9.79	6	11,483
0.08 %		SCR-100, 1200 LB BAG - (1126328)							
0.08 %		FE-2, 2000 LB BAG - (1005549)							
9.79 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
5	MMCR Displacement	MMCR Displacement	20	bbl	8.34				
0.50 gal/bbl		MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
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
6	Displacement	Displacement	405	bbl	8.33				
Cement Left In Pipe		Amount	42 ft		Reason			Shoe Joint	

Mix Water:	pH 7	Mix Water Chloride:	0 ppm	Mix Water Temperature:	65 °F
Cement Temperature:	n/a	Plug Displaced by:	8.33 lb/gal	Disp. Temperature:	n/a
Plug Bumped?	Yes	Bump Pressure:	2440 psi	Floats Held?	Yes
Cement Returns:	0 bbl	Returns Density:	n/a	Returns Temperature:	n/a
Comment					

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	DH Density (ppg)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	3/23/2020	01:30:00	USER					CREW CALLED OUT.
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	3/23/2020	04:15:00	USER					DISCUSS ROUTE AND HAZARDS
Event	3	Crew Leave Yard	Crew Leave Yard	3/23/2020	04:30:00	USER					CREW DEPART YARD
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	3/23/2020	05:30:00	USER					ARRIVE ON LOCATION, RIG RUNNING CASING UPON HES ARRIVAL, SPOKE WITH THE COMPANY MAN AND GOT NUMBERS, TD-17,492 TP-17,472.1 FC 17,426.5 TVD-6885 CSG- 5.5" 17# OPEN HOLE- 8.5" PREV CSG- 9 5/8 36# 1965 MUD WEIGHT- 9.8#
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	3/23/2020	05:40:00	USER					DISCUSS LOCATION HAZARDS AND HOW TO MITIGATE THEM, TESTED WATER ON LOCATION, PH-7, CHLORIDES-0 TEMP-65 DEGREES
Event	6	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	3/23/2020	06:00:00	USER					DISCUSS HAZARDS AND WAYS TO MITIGATE THEM
Event	7	Safety Meeting - Pre Job	Safety Meeting - Pre Job	3/23/2020	15:30:00	USER	0.00	5.00	8.39	10.30	PRE JOB SAFETY MEETING WITH RIG CREW AND CO REP
Event	8	Start Job	Start Job	3/23/2020	15:51:47	COM4	0.00	4.00	8.40	12.70	STARTED RECORDING DATA
Event	9	Pressure Test	Pressure Test	3/23/2020	15:58:46	USER	0.00	5.00	8.39	12.70	TESTED LINES 4800.

Event	10	Drop Bottom Plug	Drop Bottom Plug	3/23/2020	15:59:24	USER	0.00	4.00	8.45	12.70	LAUNCHED BOTTOM PLUG.
Event	11	Pump Spacer	Pump Spacer	3/23/2020	16:03:50	USER	0.00	4.00	8.39	12.70	MIXED AND PUMPED 174.10 SKS, 120 BBLS OF SPACER. 11.5 PPG, 3.87 YIELD, 24.42 GAL/SK. PUMPED AT 6 BPM 209 PSI, CALCULATED TOS IS TO SURFACE.
Event	12	Check Weight	Check Weight	3/23/2020	16:35:07	COM4	3.10	462.00	12.22	7.20	CHECKED WEIGHT WITH PRESSURIZED SCALES.
Event	13	Check Weight	Check Weight	3/23/2020	16:48:54	COM4	5.80	158.00	11.90	63.30	CHECKED WEIGHT WITH PRESSURIZED SCALES.
Event	14	Pump Cap Cement	Pump Cap Cement	3/23/2020	17:01:43	COM4	0.00	40.00	12.01	0.00	MIXED AND PUMPED 140 SKS, 41.14 BBLS OF CAP CEMENT. 13.2 PPG, 1.65 YIELD, 8.4 GAL/SK. PUMPED AT 8 BPM AT 500 PSI. CALCULATED TOCC -2428.47 '
Event	15	Drop Bottom Plug	Drop Bottom Plug	3/23/2020	17:01:48	COM4	0.00	41.00	12.01	0.00	LAUNCHED 2ND BOTTOM PLUG.
Event	16	Check Weight	Check Weight	3/23/2020	17:06:25	COM4	8.20	584.00	12.96	27.50	CHECKED WEIGHT WITH PRESSURIZED SCALES.
Event	17	Pump Lead Cement	Pump Lead Cement	3/23/2020	17:08:10	COM4	8.20	639.00	13.23	0.10	MIXED AND PUMPED 496 SKS, 147.52 BBLS OF LEAD CEMENT. 13.2 PPG, 1.67 YIELD, 8.05 GAL/SK. PUMPED AT 8 BPM AT 625 PSI. CALCULATED TOLC - 3436.8 '
Event	18	Check Weight	Check Weight	3/23/2020	17:12:33	COM4	7.60	629.00	13.43	35.20	CHECKED WEIGHT WITH PRESSURIZED SCALES.
Event	19	Pump Tail Cement	Pump Tail Cement	3/23/2020	17:31:33	COM4	4.70	239.00	12.69	0.00	MIXED AND PUMPED 1173 SKS, 426.18 BBLS OF TAIL CEMENT. 13.2 PPG, 2.04 YIELD, 9.79 GAL/SK,

											PUMPED AT 8 BPM, 850 PSI, CALCULATED TOTC -7052.49
Event	20	Check Weight	Check Weight	3/23/2020	17:37:08	COM4	8.20	816.00	13.20	45.40	CHECKED WEIGHT WITH PRESSURIZED SCALES.
Event	21	Check Weight	Check Weight	3/23/2020	18:08:13	COM4	8.10	892.00	13.20	297.50	CHECKED WEIGHT WITH PRESSURIZED SCALES.
Event	22	Shutdown	Shutdown	3/23/2020	18:26:09	COM4	0.00	92.00	13.27	431.40	SHUT DOWN TO WASH PUMP AND LINES.
Event	23	Drop Top Plug	Drop Top Plug	3/23/2020	18:34:50	COM4	1.70	3.00	7.43	442.40	LAUNCHED TOP PLUG.
Event	24	Pump Displacement	Pump Displacement	3/23/2020	18:34:56	COM4	1.70	2.00	7.47	0.00	PUMPED 404.29 BBLS OF FRESH WATER DISPLACEMENT, WITH THE FIRST 20 BBLS HAVING 10 GALLONS OF MMCR MIXED IN, AND 6 #'S OF BE-3 MIXED THROUGHOUT THE REST OF DISPLACEMENT. PUMPED AT 10 BPM AT 2590 PSI. NO SPACER OR CEMENT TO SURFACE.
Event	25	Bump Plug	Bump Plug	3/23/2020	19:25:23	COM4	0.00	2376.00	7.45	415.70	BUMPED THE PLUG AT CALCULATED DISPLACEMENT. LAST CIRCULATING PSI WAS 1980, AND K/O AT 2440 PSI. LEVELED OUT AT 2562 PSI. HELD FOR 5 MINUTES.
Event	26	Other	Other	3/23/2020	19:30:32	COM4	0.00	2600.00	7.43	415.80	CHECKED FLOATS BACK TO THE PUMP. 5 BBLS RETURNED.
Event	27	End Job	End Job	3/23/2020	19:33:20	COM4	0.00	-2.00	7.42	0.00	STOPPED RECORDING DATA.
Event	28	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	3/23/2020	19:40:00	USER					DISCUSS HAZARDS AND WAYS TO MITIGATE THEM

Event	29	Depart Location Safety Meeting	Depart Location Safety Meeting	3/23/2020	21:00:00	USER	DISCUSS HAZARDS AND ROUTE
Event	30	Crew Leave Location	Crew Leave Location	3/23/2020	21:15:00	USER	THANK YOU FOR USING HALLIBURTON, KYLE BATH AND CREW

3.0 Attachments

3.1 NOBLE GUTTERSEN D34-759-Custom Results.png

