

2.0 Real-Time Job Summary

Cementing liner

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	Comb Pump Rate (bbl/min)	Comments
Event	1	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	10/3/2017	13:00:00	USER				Depart location for second job. Pre-journey safety meeting.
Event	2	Arrive at Location from Other Job or Site	Arrive at Location from Other Job or Site	10/3/2017	14:15:00	USER				Perform a site assessment and pre rig-up safety meeting. Crew was Bradley Hinkle, Prince Perez, Luis Ramirez and Steve Dunham.
Event	3	Other	Job numbers	10/3/2017	14:20:00	USER				5.5" 15.5# casing set at 261 inside 10.75" 32# casing.
Event	4	Safety Meeting	Safety Meeting	10/3/2017	15:00:00	USER	137.00	8.46	0.20	Pre-job safety meeting with all personnel on location.
Event	5	Start Job	Start Job	10/3/2017	15:10:35	COM4	-1.00	0.04	0.00	
Event	6	Test Lines	Test Lines	10/3/2017	15:11:59	COM4	1552.00	8.26	0.00	Pressure test lines with a 500 PSI electronic kick-out test.
Event	7	Pump Spacer 1	Pump Spacer 1	10/3/2017	15:15:29	COM4	8.00	0.63	1.20	Pump 5 bbls fresh water to establish good circulation.
Event	8	Pump Cement	Pump Cement	10/3/2017	15:31:31	COM4	17.00	8.37	0.00	Pump 23 bbls (110 sacks) Premium G-Cement with 2% Calcium Chloride added into mix water. Stopped pumping cement when cement was observed at surface and went into displacement.
Event	9	Other	Other	10/3/2017	15:39:54	USER	5.00	11.71	0.50	Downhole stopped reading temporarily. Cement consistently at 15.8 ppg.

iCem Service

(v. 4.2.393)

Created: Tuesday, October 03, 2017

Event	10	Pump Displacement	Pump Displacement	10/3/2017	15:49:26	COM4	219.00	11.76	2.10	Cement observed at surface and pumped 5 bbls fresh water to leave 50 feet of cement inside casing.
Event	11	Shutdown	Shutdown	10/3/2017	15:51:39	USER	263.00	8.10	2.10	Shutdown and shut in valve on casing swedge. Swedge and valve left on location to be picked up day after.
Event	12	End Job	End Job	10/3/2017	15:53:00	USER	2.00	8.21	0.00	
Event	13	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/3/2017	15:55:00	USER	1.00	8.20	0.00	Pre rig-down safety meeting.
Event	14	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	10/3/2017	16:45:00	USER				Pre-journey safety meeting.

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3828585	Quote #:	Sales Order #: 0904366732
Customer: NOBLE ENERGY INC E-BUSINESS		Customer Rep: PETE BURNS	
Well Name: Brown & Manning		Well #: 1	API/UWI #: 05-123-05188
Field:	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO
Legal Description:			
Contractor: UNKNOWN		Rig/Platform Name/Num: WORKOVER RIG	
Job BOM: 7528 7528			
Well Type: GAS			
Sales Person: HALAMERICA\HB70026		Srv Supervisor: Vitalijs Neverdasovs	
Job			

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST
Job depth MD	5043ft		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		5.5	4.95	15.5			0	271		0
Casing	3	10.75	10.192	32.75			0	280	0	0

Tools and Accessories

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	Mud Flush III (Powder)	Mud Flush III	10	bbl	8.4				
42 gal/bbl		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
2	PLUG #1	HALCEM (TM) SYSTEM	100	sack	15.8	1.15		2	5
94 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
5 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
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3	Mud Flush III (Powder)	Mud Flush III	10	bbl	8.4				
42 gal/bbl		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Plug 2	HALCEM (TM) SYSTEM	100	sack	15.8	1.15		2	5
5 Gal		FRESH WATER							
Comment : ESIMATED TOP OF FIRST PLUG 4782'. ESTIMATED TOP OF 2 ND PLUG 3019'									

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Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	10/16/2017	05:00:00	USER					For on location after previous job.
Event	2	Depart Location for Service Center or Other Site	Depart Location for other Site.	10/16/2017	12:30:00	USER					Journey called into dispatch.
Event	3	Arrive at Location from Other Job or Site	Arrive at Location from Other Job or Site	10/16/2017	13:30:00	USER					With all equipment and materials.
Event	4	Comment	Comment	10/16/2017	13:32:00	USER					Tubing 2 7/8" 6.5# @ 526', Surface Casing 10 3/4" 32.75# @ 500', Liner 5 1/2" 15.5# from surface to 271'. OH 12".
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/16/2017	13:35:00	USER					JSA with HES crew to discuss the hazards of rig-up.
Event	6	Rig-Up Completed	Rig-Up Completed	10/16/2017	14:00:00	USER					With no incidents or injuries.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/16/2017	14:05:00	USER	6.20	8.39	57.00	3.8	With all essential personnel.
Event	8	Start Job	Start Job	10/16/2017	14:19:19	COM5	2.00	8.22	-42.00	26.1	With water supplied from transport, water test good to mix cement, PH 7, CL 52 ppm, Temp 65.
Event	9	Test Lines	Test Lines	10/16/2017	14:20:37	COM5	0.00	7.93	-53.00	27.8	@ 3000 psi, Pressure test was good.
Event	10	Pump Spacer 1	Pump Spacer 1	10/16/2017	14:24:37	COM5	0.00	1.69	-52.00	0.0	5 bbls fresh water to establish circulation.

369 sks (75 bbls) G neat @
15.8 ppg, 1.15 ft3/sk, 5.0
gal/sk. Verified with
pressurized scales. 336
sks(69 bbls) to get cement
to surface.

Event	11	Pump Cement	Pump Cement	10/16/2017	14:37:21	COM5	0.10	8.23	23.00	0.0	
Event	12	Shutdown	Shutdown	10/16/2017	15:00:15	USER	0.00	15.65	167.00	68.0	Cement returns to surface.
Event	13	Comment	Comment	10/16/2017	15:00:57	USER	0.00	15.69	31.00	68.0	POOH to nipple down.
Event	14	Pump Spacer	Pump Spacer	10/16/2017	15:41:23	USER	0.30	16.78	2.00	68.1	Top out casing. Used 2 bbls to top out.
Event	15	Comment	Comment	10/16/2017	15:53:13	USER	0.00	17.92	-4.00	71.4	Stopped top out, Cement falling about 3ft/min. Discussed with customer rep to come back and tag in the morning.
Event	16	End Job	End Job	10/16/2017	16:11:00	COM5	6.20	8.09	117.00	107.5	End Recording Data.
Event	17	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/16/2017	16:15:00	USER	0.00	6.39	3.00	133.4	JSA to discuss the hazards of rig-down.
Event	18	Rig-Down Completed	Rig-Down Completed	10/16/2017	16:35:00	USER					With no incidents or injuries.
Event	19	Depart Location Safety Meeting	Depart Location Safety Meeting	10/16/2017	16:40:00	USER					Journey management meeting held prior to departure.
Event	20	Depart Location	Depart Location	10/16/2017	16:45:00	USER					Thank you for choosing Halliburton Cementing, Aaron Smith and Crew.