

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3633323	Quote #:	Sales Order #: 0902992250
Customer: NOBLE ENERGY INC E-BUSINESS		Customer Rep: Gary Stapleton	
Well Name: MOSER	Well #: H34-735	API/UWI #: 05-123-40860-00	
Field: WATTENBERG	City (SAP): HUDSON	County/Parish: WELD	State: COLORADO
Legal Description: NW NE-27-3N-65W-345FNL-1891FEL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 321	
Job BOM: 7521			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB45834		Srvc Supervisor: Vaughn Oteri	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST 128 degF
Job depth MD	1858ft		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	3	16	15.376	55			0	130	0	130
Casing	0	9.625	8.921	36	LTC	J-55	0	1848	0	1848
Open Hole Section			13.5				130	1858	0	1858

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	9.625				Top Plug	9.625	1	HES
Float Shoe	9.625			1848	Bottom Plug	9.625		
Float Collar	9.625			1805	SSR plug set	9.625		
Insert Float	9.625				Plug Container	9.625	1	HES
Stage Tool	9.625				Centralizers	9.625		

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	Water	Water with red tracer dye	50	bbl	8.34				

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 B1	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	SwiftCem B1	SWIFTCEM (TM) SYSTEM	75	sack	14.2	1.53		5	7.65	
7.65 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	Oil based mud I		140.8	bbl	8.5			5		
Cement Left In Pipe		Amount	43 ft		Reason			Shoe Joint		
Comment 35bbl of 13.5ppg cement back to surface										

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	PS Pump Rate (bbl/min)	Comments
Event	1	Call Out	Call Out	12/16/2015	23:30:00	USER				Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	12/17/2015	02:00:00	USER				Requested on location @0330. Arrived @0200 met with company rep to discuss job process and concerns. Advised that they had about 2 racks of casing left to run
Event	3	Other	Other	12/17/2015	03:00:00	USER				Water test=pH: <u>6</u> , Cl: <u>0</u> , temp <u>75</u> degrees
Event	4	Other	Other	12/17/2015	03:30:00	USER				TD: 1858, TP 1848, SJ: 42.75, OH: 13.5, Casing: Size/Weight/Grade: 9.625/36#, Previous Casing Shoe: n/a
Event	5	Start Job	Start Job	12/17/2015	05:35:48	COM4	88.00	0.29	0.00	Held pre-job safety meeting in dog house with all hands on location to discuss job process and hazards. Pre-loaded plug into cement head witnessed by company rep
Event	6	Test Lines	Test Lines	12/17/2015	05:54:52	COM4	31.00	9.35	0.00	Pressure tested pumps and lines found no leaks held for short time due to sub-zero temps
Event	7	Pump Spacer 1	Pump Spacer 1	12/17/2015	05:59:02	COM4	11.00	9.16	0.00	Pumped 40bbl of fresh water, and 10bbl of water with red tracer dye @5.0bpm 140psi
Event	8	Pump Lead Cement	Pump Lead Cement	12/17/2015	06:17:37	COM4	168.00	12.63	5.00	Mixed 550sks or 170bbl of 13.5ppg y1.74 g/sk9.2 @6.0bpm 190psi
Event	9	Pump Tail Cement	Pump Tail Cement	12/17/2015	06:49:05	COM4	89.00	14.46	1.10	Mixed 75sks or 20bbl of 14.2ppg y1.53 g/sk7.65 @6.0bpm 152psi
Event	10	Shutdown	Shutdown	12/17/2015	06:57:59	COM4	40.00	14.40	0.00	
Event	11	Drop Top Plug	Drop Top Plug	12/17/2015	06:59:56	COM4	9.00	14.79	0.00	Released plug witnessed by company rep
Event	12	Pump Displacement	Pump Displacement	12/17/2015	07:00:32	COM4	7.00	14.85	0.00	Pumped 140.8bbl of OBM to displace cement
Event	13	Bump Plug	Bump Plug	12/17/2015	07:32:45	COM4	987.00	9.92	0.00	Bumped plug 500psi over final pump pressure (final 1053)
Event	14	Pressure Up Well	Pressure Up Well	12/17/2015	07:33:47	COM4	1069.00	9.90	0.00	Held pressure for 15min to test casing per Noble policy

Event	15	Other	Other	12/17/2015	07:46:26	COM4	1065.00	9.76	0.00	Released pressure back to pump truck to check floats, 1bbl back; floats held good
Event	16	End Job	End Job	12/17/2015	07:47:11	USER	58.00	9.72	0.00	35bbl of cement back to surface