

*The Road to Excellence Starts with Safety*

Sold To #: 345242		Ship To #: 3633320		Quote #:		Sales Order #: 0902952571	
Customer: NOBLE ENERGY INC E-BUSINESS				Customer Rep: Josh Border			
Well Name: MOSER			Well #: H22-748		API/UWI #: 05-123-40881-00		
Field: WATTENBERG		City (SAP): HUDSON		County/Parish: WELD		State: COLORADO	
Legal Description: NW NE-27-3N-65W-345FNL-1958FEL							
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	1876ft	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	124	0	124
Casing	0	9.625	8.921	36	LTC	J-55	0	1866	0	1866
Open Hole Section			13.5				124	1876	0	1876

**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			1866	Bottom Plug	9.625		
Float Collar	9.625			1822	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	50	bbl	8.34			4		

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		6	9.2	
9.20 Gal		<b>FRESH WATER</b>								
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		6	7.65	
7.65 Gal		<b>FRESH WATER</b>								
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- 9.3#/gal		140.8	bbl	9.3			6		
Cement Left In Pipe		<b>Amount</b>	45 ft		<b>Reason</b>			<b>Shoe Joint</b>		
<b>Comment</b> 41bbl of cement back to surface										

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	11/30/2015	13:00:00	USER	Call out from arc hub
Event	2	Arrive At Loc	Arrive At Loc	11/30/2015	17:00:00	USER	Requested on location at 1800 arrived on location at 1700 met with company rep to discuss job process and concerns. Advised that they would like to have full truck containmaent due to OBM displacement, called for service
Event	3	Other	Other	11/30/2015	20:21:53	USER	TD: __1876__, TP __1866__, SJ: __44__, OH: __13.5__, Casing: Size/Weight/Grade: __9.625__, Previous Casing Shoe: 0__
Event	4	Other	Other	11/30/2015	20:25:00	USER	Water test=pH: 6__, Cl: __3__, temp __65__degrees
Event	5	Start Job	Start Job	11/30/2015	20:30:13	COM4	Held pre0-job safety meeting with all hands on location to discuss job process and hazards. Preloaded plug witnessed by company rep
Event	6	Test Lines	Test Lines	11/30/2015	20:31:54	COM4	Pressure tested pumps and lines found no leaks held for short time due to below freezing temps

Event	7	Pump Spacer 1	Pump Spacer 1	11/30/2015	20:35:16	COM4	Pumped 50bbl of fresh water with red tracer dye at 4bpm 38psi
Event	8	Pump Lead Cement	Pump Lead Cement	11/30/2015	20:49:30	COM4	Mixed 170bbl of 13.5ppg swiftcem at 6.0bpm 125psi
Event	9	Pump Tail Cement	Pump Tail Cement	11/30/2015	21:21:43	COM4	Mixed 20bbl of 14.2ppg swiftcem at 6.0bpm 93psi
Event	10	Shutdown	Shutdown	11/30/2015	21:26:44	COM4	
Event	11	Drop Top Plug	Drop Top Plug	11/30/2015	21:28:14	COM4	Released plug witnessed by company rep
Event	12	Pump Displacement	Pump Displacement	11/30/2015	21:32:03	COM4	Pumped 140.8bbl of OBM to displace cement
Event	13	Bump Plug	Bump Plug	11/30/2015	22:01:56	COM4	Bump plug 500psi over final pump pressure
Event	14	Pressure Up Well	Pressure Up Well	11/30/2015	22:02:22	COM4	Pressure up well per nble policy to test casing
Event	15	Other	Other	11/30/2015	22:17:02	COM4	Released pressure back to pump truck to check floats 1bbl back floats held good
Event	16	End Job	End Job	11/30/2015	22:17:16	USER	41bbl of cement back to surface