

HALLIBURTON

*Cementing Job Summary**The Road to Excellence Starts with Safety*

Sold To #: 345242		Ship To #: 3633309		Quote #:		Sales Order #: 0902976838				
Customer: NOBLE ENERGY INC E-BUSINESS				Customer Rep: Jim Turner						
Well Name: MOSER		Well #: H22-735		API/UWI #: 05-123-40884-00						
Field: WATTENBERG	City (SAP): HUDSON	County/Parish: WELD		State: COLORADO						
Legal Description: NW NE-27-3N-65W-345FNL-1913FEL										
Contractor: H & P DRLG				Rig/Platform Name/Num: H & P 321						
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB45834				Srv Supervisor: Vaughn Oteri						
Job										
Formation Name										
Formation Depth (MD)		Top			Bottom					
Form Type				BHST	128 degF					
Job depth MD		1860ft		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	1850	0	1850
Open Hole Section			13.5				130	1860	0	1860
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			1850		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 ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Water	Water/tracer dye		50	bbl	8.34				
Fluid #	Stage Type	Fluid Name		Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	SwiftCem B1	SWIFTCM (TM) SYSTEM		550	sack	13.5	1.74		5	9.2
9.20 Gal		FRESH WATER								

last updated on 12/11/2015 3:51:24 PM

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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 displacement		240	bbl	8.5			5	
Cement Left In Pipe		Amount	45 ft		Reason			Shoe Joint	
Comment 25bbl of 13.5ppg Swiftcem 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	12/10/2015	21:00:00	USER				Call out from ARC hub
Event	2	Arrive At Loc	Arrive At Loc	12/11/2015	00:45:00	USER				Requested on location @0130 Arrived @ 0045 met with company rep to discuss job process and concerns advised that they were just getting ready to start picking up casing
Event	3	Other	Other	12/11/2015	00:50:00	USER				TD: 1860, TP 1850, SJ: 44.78, OH: 13.50, Casing: Size/Weight/Grade: 9.625, Previous Casing Shoe: n/a
Event	4	Safety Meeting - Pre Rig-Up	Safety Meeting - Pre Rig-Up	12/11/2015	01:00:00	USER				Held pre-rig up safety meeting with all hands to discuss process and hazards
Event	5	Other	Other	12/11/2015	01:15:00	USER				Water test=pH: 6, Cl: 0, temp 65 degrees
Event	6	Safety Meeting - Pre Job	Safety Meeting - Pre Job	12/11/2015	05:30:00	USER				Held pre-job safety meeting with all hands on location to discuss job process and hazards
Event	7	Start Job	Start Job	12/11/2015	06:31:08	COM4				Held another safety meeting with new rig crew about job process and hazards. Preloaded plug witnessed by company rep
Event	8	Test Lines	Test Lines	12/11/2015	06:33:13	COM4	2490.00			Pressure tested pumps and lines found no leaks and pressure held well, held for 2min due to below freezing temps
Event	9	Pump Spacer 1	Pump Spacer 1	12/11/2015	06:36:14	COM4	148.00	8.33	5.00	Pumped 50bbl of fresh water last 10bbl had red tracer dye @5.0bpm 148psi
Event	10	Pump Lead Cement	Pump Lead Cement	12/11/2015	06:51:28	COM4	270.00	13.50	6.00	Mixed 170bbl or 550sks of 13.5ppg 1.74y 9.2g/sk swiftcem @6bpm 270psi
Event	11	Pump Tail Cement	Pump Tail Cement	12/11/2015	07:18:59	COM4	220.00	14.20	6.00	Mixed 20bbl or 75sks of 14.2ppg 1.53y 7.65g/sk Swiftcem @6.0bpm 220psi
Event	12	Shutdown	Shutdown	12/11/2015	07:24:00	COM4				

Event	13	Drop Top Plug	Drop Top Plug	12/11/2015	07:26:12	COM4				Released plug witnessed by company rep
Event	14	Pump Displacement	Pump Displacement	12/11/2015	07:26:27	COM4	500.00	10.00	6.00	Pumped 140bbl OBM drill mud to displace cement
Event	15	Bump Plug	Bump Plug	12/11/2015	08:01:52	COM4	1000.00	7.55	0.00	Bumped plug 500psi over final pump pressure
Event	16	Pressure Up Well	Pressure Up Well	12/11/2015	08:02:23	COM4	1038.00	7.55	0.00	Held pressure for 15min for casing test per Noble policy
Event	17	Other	Other	12/11/2015	08:16:00	COM4	982.00	7.54	0.00	Released pressure back to pump truck to check floats, 1 bbl back to surface floats held well
Event	18	End Job	End Job	12/11/2015	08:17:41	COM4				25bbl of 13.5ppg Swiftcem back to surface, Estimated TOTC 1654.98
Event	19	Safety Meeting - Pre Rig-Down	Safety Meeting - Pre Rig-Down	12/11/2015	08:19:24	USER				Held pre-rig down safety meeting to discuss job tasks and hazards
Event	20	Safety Meeting - Departing Location	Safety Meeting - Departing Location	12/11/2015	09:14:02	USER				Held pre-convoy safety meeting to discuss route and start journey back to yard