

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3633323	Quote #:	Sales Order #: 0902999040
Customer: NOBLE ENERGY INC E-BUSINESS		Customer Rep: DEVIN	
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: 392189			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HX38199		Srvc Supervisor: Joseph Scieppi	

Job

Formation Name			
Formation Depth (MD)	Top	0	Bottom 16441
Form Type	BHST 225 degF		
Job depth MD	7268ft	Job Depth TVD	6944
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	0	9.825	8.921	36	BTC	J-55	0	1848	0	1848
Casing	0	5.5	4.778	20	BTC	P-110	0	16439	0	6944
Open Hole Section			8.5				1848	16441	1848	6944

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5			16439	Top Plug	5.5		
Float Shoe	5.5				Bottom Plug	5.5		
Float Collar	5.5				SSR plug set	5.5		
Insert Float	5.5				Plug Container	5.5		
Stage Tool	5.5			7268	Centralizers	5.5		

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	12.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12.5	2.75		6		
	0.30 gal/bbl	MUSOL A, 330 GAL TOTE - (790828)								
	0.30 gal/bbl	DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
	203.65 lbm/bbl	BARITE, BULK (100003681)								
	34.60 gal/bbl	FRESH WATER								

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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	12.5 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	12.5	2.75		6	
34.60 gal/bbl			FRESH WATER						
203.65 lbm/bbl			BARITE, BULK (100003681)						
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
3	ElastiCem	ELASTICEM (TM) SYSTEM	665	sack	13.6	1.88		6	8.57
0.50 %			HR-5, 50 LB SK (100005050)						
8.57 Gal			FRESH WATER						
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
4	Displacement	Displacement	160.6	bbl	8.33				
Cement Left In Pipe	Amount	45 ft			Reason			Shoe Joint	
Mix Water:	pH ##	Mix Water Chloride: ## ppm			Mix Water Temperature: ## °F °C				
Cement Temperature:	## °F °C	Plug Displaced by: ## lb/gal kg/m ³ XXXX			Disp. Temperature: ## °F °C				
Plug Bumped?	Yes/No	Bump Pressure: #### psi MPa			Floats Held? Yes/No				
Cement Returns:	## bbl m³	Returns Density: ## lb/gal kg/m ³			Returns Temperature: ## °F °C				
Comment GOT 15 BBLs OF SPACER BACK TO SURFACE									

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)	DH Density (ppg)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	12/24/2015	06:30:00	USER				CALLOUT FOR ON LOCATION AT 10:30
Event	2	Crew Leave Yard	Crew Leave Yard	12/24/2015	09:45:00	USER				PRE JOURNEY JSA W/ CREW
Event	3	Arrive At Loc	Arrive At Loc	12/24/2015	10:20:00	USER				UPON ARRIVAL RIG WAS DONE RUNNING CASING AND WAS PUMPING BALL DOWN, MET W/ COMPANY REP TO DISCUSS JOB PROCEDURE
Event	4	Rig-Up Equipment	Rig-Up Equipment	12/24/2015	11:00:00	USER				HAZARD HUNT JSA W/ CREW
Event	5	Other	Other	12/24/2015	11:05:00	USER				FIELD MIX WATER ANALYSIS: TEMP 58, PH-7, CHLORIDES-0, SULFATE- <200
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/24/2015	13:58:20	USER				JSA W/ ALL INVOLVED PERSONNEL
Event	7	Start Job	Start Job	12/24/2015	18:19:46	COM5				
Event	8	Test Lines	Test Lines	12/24/2015	18:21:45	COM5			4500.00	TESTED LINES TO 4500 PSI FOR 5 MIN, NO VISIBLE LEAKS
Event	9	Pump Spacer 1	Pump Spacer 1	12/24/2015	18:28:53	COM5	7.00	12.5	604.00	PUMPED 40 BBLS OF 12.5 SPACER W/ 12 GAL MUSOL A AND 12 GAL SURFACTANT B AT 7 BPM AND 604 PSI
Event	10	Pump Spacer 2	Pump Spacer 2	12/24/2015	18:37:07	COM5	7.00	12.5	587.00	PUMPED 40 BBLS OF 12.5 SPACER AT 7 BPM AND 587 PSI
Event	11	Pump Cement	Pump Cement	12/24/2015	18:45:36	COM5	8.00	13.6	600.00	PUMPED 665 SKS OR 222.6 BBLS 13.6 CMT AT 8 BPM AND 600 PSI
Event	12	Check Weight	Check weight	12/24/2015	18:51:56	COM5				WEIGHT VERIFIED W/ MUD SCALES
Event	13	Check Weight	Check weight	12/24/2015	18:56:27	COM5				WEIGHT VERIFIED W/ MUD SCALES
Event	14	Check Weight	Check weight	12/24/2015	19:10:02	COM5				WEIGHT VERIFIED W/ MUD SCALES
Event	15	Shutdown	Shutdown	12/24/2015	19:26:28	COM5				SHUTDOWN AND WASHED PUMPS AND LINES
Event	16	Drop Top Plug	Drop Top Plug	12/24/2015	19:30:13	COM5				PLUG PRE LOADED AND WITNESSED BY COMPANY REP
Event	17	Pump Displacement	Pump Displacement	12/24/2015	19:30:17	COM5	9.00	8.33	1689.00	PUMPED 160.6 BBLS OF FRESH WATER AT 9 BPM AND

1689 PSI, GOT 15 BBLS OF SPACER BACK TO SURFACE

Event	18	Bump Plug	Bump Plug	12/24/2015	19:56:02	COM5	0.00	8.33	2180.00	PLUG LANDED AT 2180 PSI AND WENT TO UP TO 4035 PSI
Event	19	Pressure Up Well	Pressure Up Well	12/24/2015	20:01:03	COM5	0.00	8.41	3041.00	HELD PRESSURE AT 4000 PSI FOR 5 MIN AND CHECKED FLOATS GOT 2 BBLS BACK TO TRUCK, THEN PRESSURED UP TO 3000 PSI FOR 5 MIN AND CHECKED FLOATS AND GOT .5 BBL BACK
Event	20	End Job	End Job	12/24/2015	20:21:21	COM5				