HALLIBURTON

NOBLE ENERGY INC E-BUSINESS

Mossberg PMJ 28-09
WATTENBERG
Weld County , Colorado

Squeeze Hole in Casing

31-Oct-2012

Job Site Documents

SUMMIT Version: 7.20.130

Wednesday, October 31, 2012
01:51:00

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242	**Ship To #:** 2961117	**Quote #:**	**Sales Order #:** 9932801
Customer: NOBLE ENERGY INC E-BUSINESS		**Customer Rep:** Zwaagstra, Erich	
Well Name: Mossberg	**Well #:** PMJ 28-09		**API/UWI #:** 0
Field: WATTENBERG	**City (SAP):** EVANS	**County/Parish:** Weld	**State:** Colorado
Contractor: Ensign	**Rig/Platform Name/Num:**		
Job Purpose: Squeeze Hole in Casing			
Well Type: Development Well	**Job Type:** Squeeze Hole in Casing		
Sales Person: AARON, WESLEY	**Srvc Supervisor:** WHEELER, JUSTIN	**MBU ID Emp #:** 196470	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BAMMER, JORDAN Blaine	2	526575	IPSON, TIMOTHY J	2	485018	SANSONI, NICHOLAS Sterling J	2	502962
WHEELER, JUSTIN W	2	196470						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11542778	30 mile	11562546C	30 mile	11566182	30 mile	11605599	30 mile

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
10-31-12	2	2						
TOTAL			*Total is the sum of each column separately*					

Job

Formation Name			
Formation Depth (MD)	**Top**		**Bottom**
Form Type		**BHST**	
Job depth MD	574. ft	**Job Depth TVD**	574. ft
Water Depth		**Wk Ht Above Floor**	
Perforation Depth (MD)	**From**		**To**

Job Times

	Date	Time	Time Zone
Called Out	31 - Oct - 2012	00:00	MST
On Location	31 - Oct - 2012	09:30	MST
Job Started	31 - Oct - 2012	10:00	MST
Job Completed	31 - Oct - 2012	10:47	MST
Departed Loc	31 - Oct - 2012	11:30	MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Suface Casing	Used		8.625	8.097	24.			.	315.	.	315.
Tubing	Unknown		1.25	1.995				.	576.	.	576.

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool					Tubing	1.25			576'	Centralizers			

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

Stage/Plug #: 1

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Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	15.8# Cement	HALCEM (TM) SYSTEM (452986)	300.0	sacks	15.79	1.15	5.0	2.0	5.0
	5 Gal	FRESH WATER							

Calculated Values		Pressures		Volumes					
Displacement	1	Shut In: Instant	125	Lost Returns	No	Cement Slurry	61.4	Pad	
Top Of Cement	Surface	5 Min		Cement Returns	2 bbls	Actual Displacement	1	Treatment	
Frac Gradient		15 Min		Spacers	10 bbls	Load and Breakdown		Total Job	

Rates

Circulating		Mixing		Displacement		Avg. Job	

Cement Left In Pipe	Amount	0 ft	Reason	Shoe Joint

Frac Ring # 1 @		ID		Frac ring # 2 @		ID		Frac Ring # 3 @		ID		Frac Ring # 4 @		ID	

The Information Stated Herein Is Correct	Customer Representative Signature

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Cementing Job Log

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Well Name: Mossberg	**Well #:** PMJ 28-09		**API/UWI #:** 0
Field: WATTENBERG	**City (SAP):** EVANS	**County/Parish:** Weld	**State:** Colorado
Legal Description:			
Lat: N 0 deg. OR N 0 deg. 0 min. 0 secs.		**Long:** E 0 deg. OR E 0 deg. 0 min. 0 secs.	
Contractor: Ensign	**Rig/Platform Name/Num:**		
Job Purpose: Squeeze Hole in Casing			**Ticket Amount:**
Well Type: Development Well	**Job Type:** Squeeze Hole in Casing		
Sales Person: AARON, WESLEY	**Srvc Supervisor:** WHEELER, JUSTIN		**MBU ID Emp #:** 196470

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Depart from Service Center or Other Site	10/31/2012 09:00							Depart From Different Noble Location, for this Location
Arrive At Loc	10/31/2012 09:30							
Safety Meeting - Pre Rig-Up	10/31/2012 09:35							Water Provided By Rig, Tested ok for Mixing Cement
Test Lines	10/31/2012 10:01							Pressure Test Lines to 2500 PSI (1 1/4" Tubing Set @ 576')
Pump Spacer	10/31/2012 10:02		0.5	10		20.0		Pump Fresh Water Spacer, Establish Circulation
Pump Cement	10/31/2012 10:18		2	61.4		250.0		Mix and Pump 300 sks Class G Cement @ 15.8 lb/gal (Density Verifed By Pressurized Scales)
Cement Returns to Surface	10/31/2012 10:45		2			650.0		2 bbls Cement to Surface
Pump Displacement	10/31/2012 10:46		2	1		655.0		Pump 1 bbl Fresh Water Displacement to Clear Tubing
Shutdown	10/31/2012 10:47							Shutdown
Safety Meeting - Pre Rig-Down	10/31/2012 11:00							Safety Meeting w/ HES Crew Prior to Rigging Down (Wet and Dry Samples of Cement Left on Location)
Safety Meeting - Departing Location	10/31/2012 11:30							Journey Management Meeting with HES Crew, Prior to Departing Location