

HALLIBURTON

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## **NOBLE ENERGY INC E-BUSINESS**

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Gemini B31-05  
WATTENBERG  
Weld County , Colorado

### **Recement Service**

18-Mar-2013

### **Job Site Documents**

## Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242		Ship To #: 2987179		Quote #:		Sales Order #: 900294721	
Customer: NOBLE ENERGY INC E-BUSINESS				Customer Rep: Marshall, Dennis			
Well Name: Gemini			Well #: B31-05		API/UWI #: 05-123-13722		
Field: WATTENBERG		City (SAP): KERSEY		County/Parish: Weld		State: Colorado	
Lat: N 40.358 deg. OR N 40 deg. 21 min. 27.382 secs.				Long: W 104.6 deg. OR W -105 deg. 24 min. 1.152 secs.			
Contractor: Workover			Rig/Platform Name/Num: Workover				
Job Purpose: Recement Service							
Well Type: Development Well			Job Type: Recement Service				
Sales Person: AARON, WESLEY			Srcv Supervisor: BULINSKI, MATTHEW			MBU ID Emp #: 483865	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BROOM, KENDALL L	5.5	524682	BULINSKI, MATTHEW J	5.5	483865	Geddes, Chris	5.5	537413
IPSON, TIMOTHY J	5.5	485018	NESBITT, ROY Iverson	5.5	537416			

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10246780C	32 mile	10988836C	32 mile	11064535	32 mile	11542778	32 mile
11605598	32 mile						

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
3-18-13	5.5	2						
TOTAL			Total is the sum of each column separately					

## Job

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To
				BHST	4865. ft	4865. ft	Wk Ht Above Floor			
Job Times										
		Date	Time	Time Zone						
Called Out		18 - Mar - 2013	05:30	MST						
On Location		18 - Mar - 2013	08:45	MST						
Job Started		18 - Mar - 2013	09:43	MST						
Job Completed		18 - Mar - 2013	00:00	MST						
Departed Loc		18 - Mar - 2013	00:00	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
10" Open Hole				10.				578.	4865.		
12" Open Hole				9.				324.	578.		
4 1/2" Production Casing	Unknown		4.5	4.	11.6			.	4865.		4865.
Surface Casing	Used		8.625	8.097	24.		J-55	.	578.	.	578.
1 1/4"	Unknown		1.25	.			K-55	.	4865.		

## 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										Centralizers			

## Miscellaneous Materials

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

## Fluid Data

HALLIBURTON

*Cementing Job Summary*

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	13.5 FracCem	FRACCEM (TM) SYSTEM (452963)	200.0	sacks	13.5	1.48	7.07		7.07	
	7.07 Gal	FRESH WATER								
2	15.8# Cement	HALCEM (TM) SYSTEM (452986)	275.0	sacks	15.8	1.15	5.0		5.0	
	5 Gal	FRESH WATER								
Calculated Values		Pressures		Volumes						
Displacement	6	Shut In: Instant		Lost Returns	0	Cement Slurry	109	Pad		
Top Of Cement	surface	5 Min		Cement Returns	3	Actual Displacement	6	Treatment		
Frac Gradient		15 Min		Spacers	15	Load and Breakdown		Total Job	129	
Rates										
Circulating	2	Mixing	2	Displacement	2	Avg. Job	2			
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						