

**ENSIGN UNITED STATES DRILLING EBUSI
PO BOX 17805 - DO NOT MAIL
DENVER, Colorado**

Phelps
Phelps A-32NHZ

Ensign/Ensign/17

Post Job Summary

Cement Intermediate Casing

Date Prepared: 04/07/2014
Version: 1

Service Supervisor: BULINSKI, MATTHEW

Submitted by: MCKAY, ADAM

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Wellbore Geometry

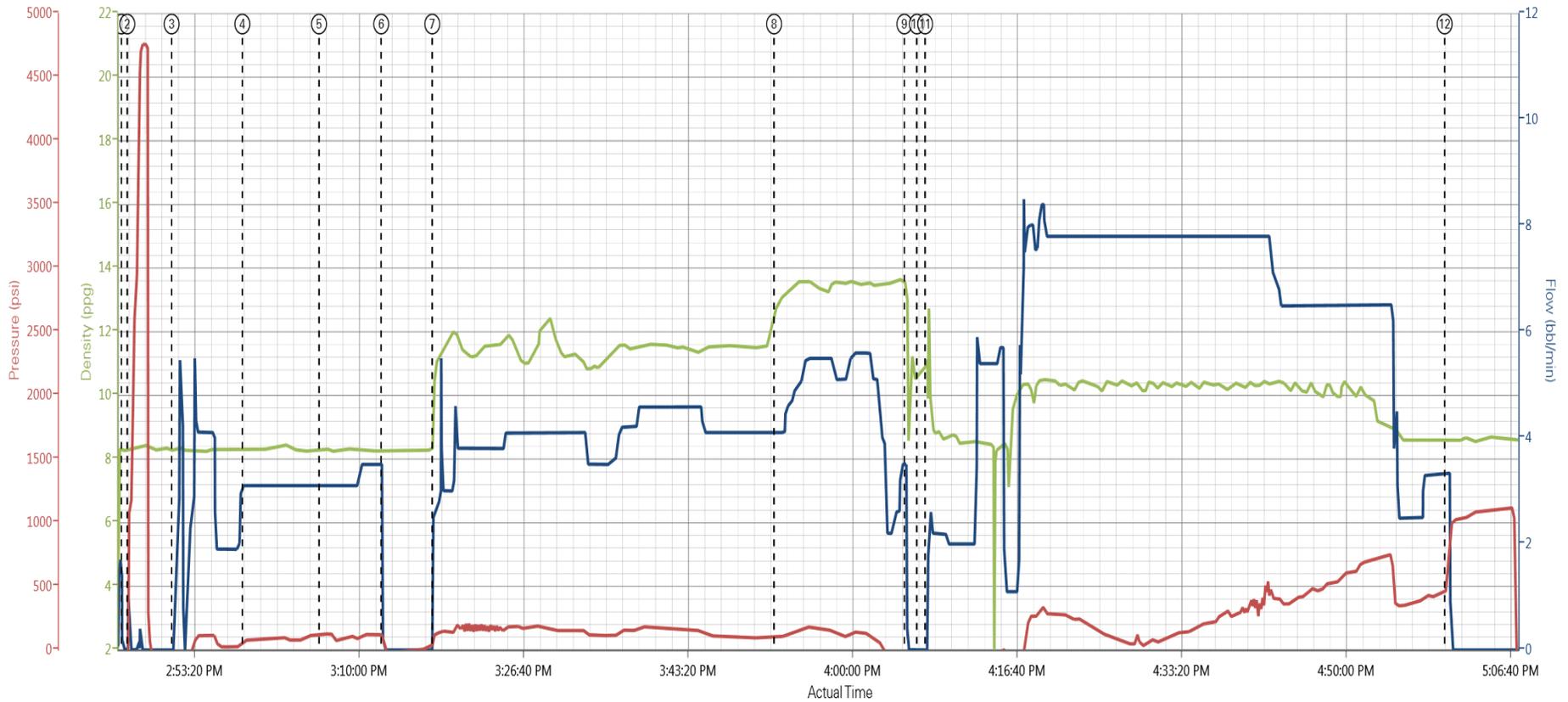
Job Tubulars					MD		TVD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	
Casing	9-5/8" Surface Casing	9.63	8.921	36.00	0.00	1,193.00			0.00
Casing	7" Casing	7.00	6.276	26.00	0.00	7,930.00	0.00	6,843.00	90.00
Open Hole Section	8-3/4" Hole		8.750		1,193.00	7,930.00	1,193.00	6,843.00	

Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Water Spacer	8.33	3.00		.0
1	2	Spacer	Mud Flush III	8.40	3.00	24.0 bbl	24.0 bbl
1	3	Spacer	Water Spacer	8.33	3.00		24.0 bbl
1	4	Cement Slurry	ExtendaCem B1	11.50	4.0	330.0 sacks	330.0 sacks
1	5	Cement Slurry	FracCem B2	13.50	5.0	205.0 sacks	205.0 sacks

Data Acquisition

Ensign United States Drilling Phelps A-32NHZ Intermediate 12-27-13



DH Density (ppg) Comb Pump Rate (bbl/min) PS Pump Press (psi)

- ① Start Job 8:27,0;124 ④ Pump Spacer 2:8,31,3,1;76 ⑦ Pump Lead Cement 10:65,2,6;131 ⑩ Drop Top Plug 10:69,0;-91 ⑬ End Job 8:57,0;-105
- ② Test Lines 8:33,0;1107 ⑤ Pump Spacer 1:8,3,3,1;124 ⑧ Pump Tail Cement 12:75,4,1;99 ⑪ Pump Displacement 10:48,1,8;-90
- ③ Pump Spacer 1:8,35,1,1;-49 ⑥ Shutdown 8:26,0;53 ⑨ Shutdown 13:58,2;-50 ⑫ Bump Plug 8:65,3,3;519

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
12/27/2013 09:00		Call Out					
12/27/2013 11:30		Depart Yard Safety Meeting					JSA on Job Materials, Pre-tripping trucks, and driving to Location
12/27/2013 12:30		Arrive at Location from Service Center					Arrived 1.5hrs early and rig is ahead of schedule... Finished running Csg at 13:10
12/27/2013 12:35		Assessment Of Location Safety Meeting					Hazard Hunt on location before spotting in trucks
12/27/2013 12:45		Safety Meeting - Pre Rig-Up					JSA on Location rig up, Rigging up bulk trucks, and iron to rig
12/27/2013 13:15		Rig-Up Equipment					
12/27/2013 13:40		Rig-Up Completed					
12/27/2013 14:00		Safety Meeting - Pre Job					JSA with Company Man, Rig hands, and HES hands on pump schedule
12/27/2013 14:46		Start Job					
12/27/2013 14:46		Test Lines					4500psi Pressure Test Lines
12/27/2013 14:51		Pump Spacer 1	4	20		330.0	20bbls H2O spacer
12/27/2013 14:58		Pump Spacer 2	4	24		320.0	24bbls Mud Flush spacer
12/27/2013 15:06		Pump Spacer 1	4	20		350.0	20bbls H2O spacer
12/27/2013 15:16		Drop Bottom Plug					Pre-Loaded
12/27/2013 15:17		Pump Lead Cement	4	135.7		350.0	330sks Extendacem, 11.5ppg, 2.31yield, 12.99gal/sk, Mixed with rig water and # verify by pressurized mud scales
12/27/2013 15:52		Pump Tail Cement	5	64.2		310.0	205sks FracCem, 13.5ppg, 1.76yield, 8.38gal/sk, Mixed with rig water and # verify by pressurized mud scales
12/27/2013 16:05		Shutdown					
12/27/2013 16:06		Drop Top Plug					Pre-Loaded
12/27/2013 16:07		Pump Displacement	8	298		400.0	Mud displacement, Good returns throughout
12/27/2013 17:00		Bump Plug	3			560.0	Slowed down last 20bbls to 3bbl/min to bump... Plug landed at 560psi and brought to 1140psi for 10mins
12/27/2013 17:11		Check Floats					Floats Held
12/27/2013 17:12		End Job					
12/27/2013 17:15		Safety Meeting - Pre Rig-Down					JSA on rigging down bulk trucks and iron from rig
12/27/2013 17:20		Rig-Down Equipment					
12/27/2013 17:50		Rig-Down Completed					
12/27/2013 18:00		Safety Meeting - Departing Location					JSA on location clean up, pre-tripping trucks and driving to Brighton yard

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Sold To #: 301256		Ship To #: 3274106		Quote #:		Sales Order #: 900999020	
Customer: ENSIGN UNITED STATES DRILLING EBUSI				Customer Rep: Martinez, Mike			
Well Name: Phelps			Well #: A-32NHZ		API/UWI #: 05-123-37872		
Field: WATTENBURG		City (SAP): FORT LUPTON		County/Parish: Weld		State: Colorado	
Contractor: Ensign			Rig/Platform Name/Num: Ensign 17				
Job Purpose: Cement Intermediate Casing							
Well Type: Development Well				Job Type: Cement Intermediate Casing			
Sales Person: PLIENESS, RYAN			Srvc 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 #
BULINSKI, MATTHEW J	0.0	483865	CARPENTER, JACOB P	0.0	499500	LANGE, TIMOTHY Paul	0.0	520811
TOWNSON, JUSTIN Travis	0.0	555407						

Equipment

HES Unit #	Distance-1 way						
10246780C	10 mile	10977079C	10 mile	10988836C	10 mile	11410470C	10 mile
11562544C	10 mile	11605598	10 mile				

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
TOTAL								
<i>Total is the sum of each column separately</i>								

Job

Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
					27 - Dec - 2013	09:00	MST
Form Type			BHST	On Location	27 - Dec - 2013	12:30	MST
Job depth MD	7930. ft		Job Depth TVD	6843. ft	Job Started	20 - Dec - 2013	14:46
Water Depth			Wk Ht Above Floor		Job Completed	27 - Dec - 2013	17:16
Perforation Depth (MD)	<i>From</i>		<i>To</i>		Departed Loc	27 - Dec - 2013	18:00

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
8-3/4" Hole				8.75				1193.	7930.	1193.	6843.
7" Casing	Mixed		7.	6.276	26.			.	7930.	.	6843.
9-5/8" Surface Casing	Unknown		9.625	8.921	36.			.	1193.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
SHOE,FLT,7 8RD,2-3/4 SS II VLV	1	EA		
CLR,FLT,7 8RD 17-26PPF,2-3/4SSII	1	EA		
CTRZR ASSY,API,7 CSG X 8 3/4HOLE,HNGD	40	EA		
CENTRALISER SLIDER II,#0700-0834S	30	EA		
Description	Qty	Qty uom	Depth	Supplier
CLAMP - LIMIT - 7 - HINGED -	1	EA		
KIT,HALL WELD-A	1	EA		
PLUG,CMTG,TOP,7,HWE,5.66 MIN/6.54 MAX CS	1	EA		
PLUG,CMTG,BOT,7,HWE,5.66 MIN/6.54 MAX CS	1	EA		

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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

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	Water Spacer	Water	20	bbl	8.33			3.0	
2	Mud Flush III	MUD FLUSH III - SBM (528788)	24.00	bbl	8.4			3.0	
3	Water Spacer	Water	20	bbl	8.33			3.0	
4	ExtendaCem B1	EXTENDACEM (TM) SYSTEM (452981)	330.0	sacks	11.5	2.31	12.99	4.0	12.99
		12.99 Gal FRESH WATER							
5	FracCem B2	FRACCEN (TM) SYSTEM (452963)	205.0	sacks	13.5	1.76	8.38	5.0	8.38
		8.38 Gal FRESH WATER							

Calculated Values

Pressures

Volumes

Displacement	298	Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement	298	Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	

Rates

Circulating		Mixing		Displacement		Avg. Job	
Cement Left In Pipe	Amount	90 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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