

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

Phelps 11-32NHZ

Ensign 17

Post Job Summary

Cement Surface Casing

Date Prepared: 11/17/2013
Version: 1

Service Supervisor: SMITH, AARON

Submitted by: TRIER, DEREK

HALLIBURTON

Wellbore Geometry

Job Tubulars					MD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	
Open Hole Section	Open Hole		13.500		0.00	1,210.00	
Casing	Surface Casing	9.63	8.921	36.00	0.00	1,193.00	43.00

HALLIBURTON

Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	Fresh Water Spacer	8.33	5.00	10.0 bbl	10.0 bbl
1	2	Cement Slurry	SwiftCem B2	13.40	5.00	275.0 sacks	275.0 sacks
1	4	Cement Slurry	Top Out Cement	15.80	2.00	40.0 sacks	40.0 sacks

Fluids Pumped

Stage/Plug # 1 Fluid 1: Fresh Water Spacer
DUMMY MUD / FLUSH / SPACER SBC MATERIAL

Fluid Density: 8.33 lbm/gal
Fluid Volume: 10.00 bbl
Pump Rate: 5.00 bbl/min

Stage/Plug # 1 Fluid 2: SwiftCem B2
SWIFTCEM (TM) SYSTEM
0.25 lbm Poly-E-Flake

Fluid Weight: 13.40 lbm/gal
Slurry Yield: 1.79 ft³/sack
Total Mixing Fluid: 9.51 Gal
Surface Volume: 275.0 sacks
Sacks: 275.0 sacks

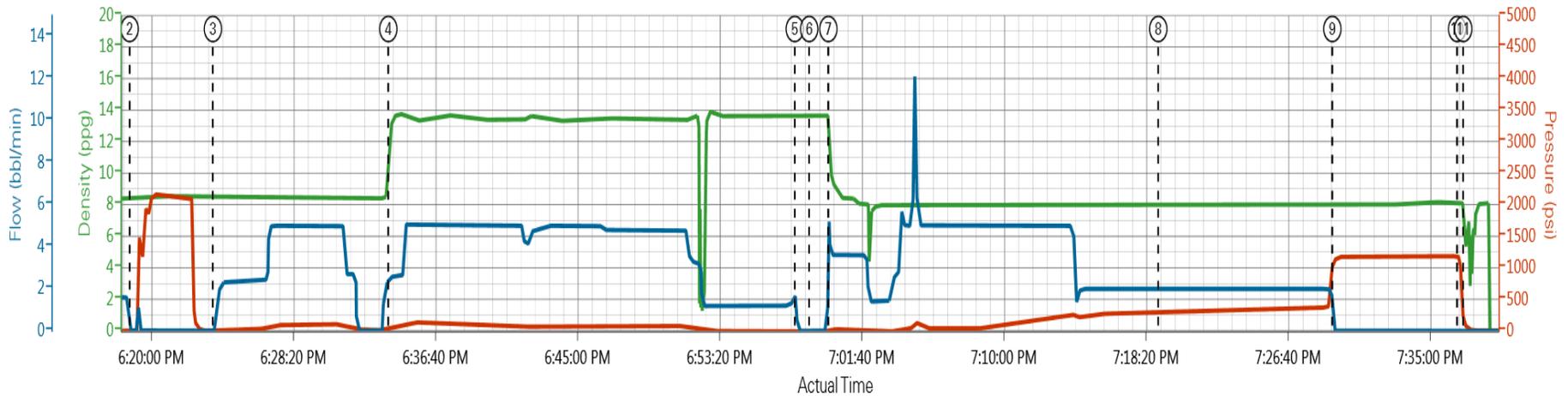
Stage/Plug # 1 Fluid 4: Top Out Cement
HALCEM (TM) SYSTEM

Fluid Weight: 15.80 lbm/gal
Slurry Yield: 1.15 ft³/sack
Total Mixing Fluid: 5.00 Gal
Surface Volume: 40.0 sacks
Sacks: 40.0 sacks
Pump Rate: 5.00 bbl/min

HALLIBURTON

Data Acquisition

ENSIGN UNITED STATES DRILLING PHELPS 11-32NHZ SURFACE



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

- ① Start Job 0.02;-9;0 ④ Pump Cement 13.01;56;2.6 ⑦ Pump Displacement 9.91;36;3.6 ⑩ Check Floats 8.08;1062;0
- ② Test Lines 8.39;10;0 ⑤ Shutdown 13.75;-5;0 ⑧ Other 8;288;2 ⑪ End Job 5.46;62;0
- ③ Pump Spacer 18.44;-6;0 ⑥ Drop Top Plug 13.66;-10;0 ⑨ Bump Plug 8.1;1139;0

▼ HALLIBURTON | iCem® Service

Created: 2013-11-12 17:27:42, Version: 2.0.606

Edit

Customer: ENSIGN UNITED STATES DRILLING

Job Date: 11/12/2013 5:44:53 PM

Well: PHELPS 11-32NHZ

Representative: AARON SMITH

Sales Order #: 900893716

THANKS: AARON SMITH AND CREW

HALLIBURTON

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
11/12/2013 17:00		Arrive at Location from Service Center					WITH ALL EQUIPMENT AND MATERIALS,
11/12/2013 17:10		Pre-Rig Up Safety Meeting					RIG-UP JSA
11/12/2013 17:15		Rig-Up Equipment					
11/12/2013 17:45		Rig-Up Completed					
11/12/2013 17:50		Pre-Job Safety Meeting					WITH CUSTOMER REP AND RIG CREW
11/12/2013 18:17		Start Job					
11/12/2013 18:18		Test Lines				2000.0	FRESH WATER WITH NO ADDITIVES
11/12/2013 18:23		Pump Spacer 1	5	30		95.0	FRESH WATER NO ADDITIVES
11/12/2013 18:34		Pump Cement	5	88		125.0	275 SKS SWIFTCEM B1 @ 13.4 PPG 1.79 YIELD, 9.51 GAL/SK
11/12/2013 18:57		Shutdown					
11/12/2013 18:58		Drop Top Plug					PRE-LOADED HWE TOP PLUG IN PLUG CONTAINER VERIFIED BY CUSTOMER REP
11/12/2013 18:59		Pump Displacement	5	89		375.0	FRESH WATER WITH NO ADDITIVES
11/12/2013 19:19		Cement Returns to Surface					@73 BBLS DISPLACEMENT, 15 BBLS TO THE PIT
11/12/2013 19:29		Bump Plug	2	89		1184.0	FINAL CIRCULATING PRESSURE 375, PSI TO LAND 303, PSI TO LIFT 499,
11/12/2013 19:36		Check Floats					FLOATS HELD, .5 BBLS BACK
11/12/2013 19:37		End Job					RIG DOWN JSA, JOURNEY MANAGMENT MEETING, THANKS AARON SMITH AND CREW
11/13/2013 04:00		Arrive at Location from Service Center					
11/13/2013 04:10		Pre-Rig Up Safety Meeting					
11/13/2013 04:15		Rig-Down Equipment					
11/13/2013 04:30		Rig-Up Completed					
11/13/2013 05:00		Start Job					
11/13/2013 05:07		Pump Cement	2	8			SKS TOP OUT CEMENT @ 15.8 PPG 1.15 YIELD, 5.00 GAL/SK 2% CALCIUM CHLORIDE
11/13/2013 06:02		End Job					

The Road to Excellence Starts with Safety

Sold To #: 301256		Ship To #: 3117319		Quote #:		Sales Order #: 900893716	
Customer: ENSIGN UNITED STATES DRILLING EBUSI				Customer Rep: Pouling, Dave			
Well Name: Phelps			Well #: 11-32NHZ		API/UWI #:		
Field: WATTENBERG		City (SAP): LOCHBUIE		County/Parish: Weld		State: Colorado	
Contractor: Ensign			Rig/Platform Name/Num: Ensign 17				
Job Purpose: Cement Surface Casing							
Well Type: Development Well				Job Type: Cement Surface Casing			
Sales Person: FINK, JOHN			Srvc Supervisor: SMITH, AARON			MBU ID Emp #: 518187	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DODSON, RICHARD Bryan	6.0	518192	SMITH, AARON David	6.0	518187	TOWNSON, JUSTIN T	6.0	555407

Equipment

HES Unit #	Distance-1 way						
10857080C	5 mile	11064046C	5 mile	11488570C	5 mile	11633846C	5 mile
12010173	5 mile						

Job

Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
					12 - Nov - 2013	14:00	MST
Form Type			BHST	On Location	12 - Nov - 2013	17:00	MST
Job depth MD	1210. ft		Job Depth TVD	1210. ft	Job Started	12 - Nov - 2013	18:17
Water Depth			Wk Ht Above Floor	5. ft	Job Completed	12 - Nov - 2013	19:37
Perforation Depth (MD)	<i>From</i>		<i>To</i>	Departed Loc	12 - Nov - 2013	20:30	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
Open Hole				13.5				.	1210.		
Surface Casing	Unknown		9.625	8.921	36.		J-55	.	1193.		

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	Fresh Water Spacer		10.00	bbl	8.33			5.0	
2	SwiftCem B2	SWIFTCEM (TM) SYSTEM (452990)	275.0	sacks	13.4	1.79	9.51	5.0	9.51
		0.25 lbm POLY-E-FLAKE (101216940)							
		9.51 Gal FRESH WATER							
3	Displacement		89.0	bbl	8.33			5.0	
4	Top Out Cement	HALCEM (TM) SYSTEM (452986)	40.0	sacks	15.8	1.15	5.0	2.0	5.0
		5 Gal FRESH WATER							

Calculated Values

Pressures

Volumes

Displacement	89	Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns	15	Actual Displacement	89	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe	Amount	43 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					

