



Cementing Service Report

9209048

Client Name Whiting Petroleum Corp.	Well Name Horsetail 07E -1803	Rig Unit Drilling Co. 409	Job Date January 20,2016	Call Sheet 1064120
Client Representative Mr. BJ Honeycutt	Surface Well Location NW NW Sec 7:T10N:R57W	Down Hole Well Location	Job Type Surface Casing	Lead Supervisor Schneider, Patrick (24093)

Well Profile

Well Type:	Oil
Maximum Treating Pressure (psi):	---
Predicted Bottom Hole Static Temperature (°F):	100.00 @ --
Bottom Hole Circulating Temperature (°F):	80.00 @ --
Bottom Hole Logged Temperature (°F):	--- @ --

Open Hole

Size (in)	Excess (%)	TMD From (ft)	TMD To (ft)	TVD From (ft)	TVD To (ft)
13.500	30.000	0.000	2,035.000	--	--

Casing

Size	Weight	Grade	Collapse Pressure	Internal Yield Pressure	Capacity	I.D.	O.D.	Depth From	Depth To
(in)	(lb/ft)		(psi)	(psi)	(bbl)	(in)	(in)	(ft)	(ft)
9.625	36.000	J-55	2,020.0	3,520.0	155.93	8.921	10.625	0.0	2,017.0

Products

Stage 1

From Depth (ft):	0
To Depth (ft):	1517

Acids/Blends/Fluids :

Lead 1: 390 Sacks of Control Set C, Density = 12 lb/gal, Volume Pumped = 171 (bbl)
Water Temperature(°F) = 56 , Bulk Temperature(°F) = 20 , Slurry Temperature(°F) = 62
+ 0.25 lb/sack of LCL-7 (Preblend)

Stage 2

From Depth (ft):	1517
To Depth (ft):	2017

Acids/Blends/Fluids :

Tail: 230 Sacks of 0:1:0 Type III, Density = 14.2 lb/gal, Volume Pumped = 60 (bbl)
Water Temperature(°F) = 56 , Bulk Temperature(°F) = 20 , Slurry Temperature(°F) = 68
+ 2 % of CaCl₂ (Preblend),
+ 0.25 lb/sack of LCL-7 (Preblend)

Fluid & Cement Data

Expected Cement Top: Surface

Wellbore Fluid

Fluid Type	Viscosity (cP)	Density (lbs/gal)	Yield Point (psi)	Temperature (°F)	Recorded@
Water	--	8.340	--	--	Jul 07, 2015 14:19
Water Based Mud	--	--	--	--	Aug 24, 2015 15:49

Attachment & Tools

Down Hole Tools

<u>Tool Type</u>	<u>Depth (ft)</u>	<u>Supplier</u>
Guide/Float Shoe	2,017.000	Third Party
Float Collar	1,970.000	Third Party

Tubular Plugs

<u>Tubular Plug Type</u>	<u>Size (in)</u>	<u>Supplier</u>
Rubber Top	9.625	Client

Units & Personnel

Units

<u>Truck Unit No.</u>	<u>Main Type</u>	<u>Sub Type</u>	<u>Tractor Unit No.</u>	<u>Main Type</u>	<u>Sub Type</u>	<u>Time On Location</u>	<u>Time Off Location</u>
201191	PICKUP	1 Ton	449088	TRAILER	Utility Trailer	01/20/2016 00:15	01/20/2016 06:30
445047	TRAILER	SCM Twin	745047	TRACTOR	Tandem - Tractor	01/20/2016 00:15	01/20/2016 06:30
446200	TRAILER	Bulker	746200	TRACTOR	Tandem - Tractor	01/20/2016 00:15	01/20/2016 06:30
446201	TRAILER	Bulker	746201	TRACTOR	Tandem - Tractor	01/20/2016 00:15	01/20/2016 06:30

Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Schneider, Patrick (24093)	01/20/2016 00:15	01/20/2016 06:30		
Yates, William (29930)	01/20/2016 00:15	01/20/2016 06:30		
Decenick, Scott (30083)	01/20/2016 00:15	01/20/2016 06:30		
Davila, Israel (28152)	01/20/2016 00:15	01/20/2016 06:30		

Treatment Reports & Remarks

Treatment Report								
Event #	Event Time	Event Description	Fluid Type	Rate (bbl/min)	Tubular Pressure (psi)	Annular Pressure (psi)	Stage Volume (bbl)	Total Volume (bbl)
1	Jan 20,2016 00:15	Arrive On Location		--	--	--	--	0.00
2	Jan 20,2016 00:20	Crew Briefing (Rig in)		--	--	--	--	0.00
		Remarks: discussed lease hazards and rig in procedures						
3	Jan 20,2016 01:00	Wait to rig in (Wait on Client)		--	--	--	--	0.00
		Remarks: waited for rig to run casing						
4	Jan 20,2016 02:30	Rig In		--	--	--	--	0.00
5	Jan 20,2016 03:15	Rig in Complete		--	--	--	--	0.00
6	Jan 20,2016 03:30	Crew Briefing (Pre Job)		--	--	--	--	0.00
		Remarks: discussed job scope and everyones dutys						
7	Jan 20,2016 04:02	Start - Fluid	Water	2.00	--	--	2.00	2.00
		Remarks: filled lines						
8	Jan 20,2016 04:05	Pressure Test Start	Water	--	2,500.0	--	--	2.00
9	Jan 20,2016 04:07	Pressure Test Complete	Water	--	0.0	--	--	2.00
		Remarks: good pressure test						
10	Jan 20,2016 04:07	Pump Preflush	Water	7.00	350.0	--	20.00	22.00
		Remarks: 10 bbl fresh water, 10 bbl dyed water						
11	Jan 20,2016 04:11	Mix Cement	Control Set C	7.50	300.0	--	171.00	193.00
		Remarks: 390 sks lead cement @ 12.0 ppg, yield = 2.46, h2o req = 14.52						
12	Jan 20,2016 04:35	Mix Cement	0:1:0 Type III	7.50	400.0	--	60.00	253.00
		Remarks: 230 sks tail cement 2 14.2 ppg, yield = 1.46, h2o req = 7.36						
13	Jan 20,2016 04:48	Drop Plug	Water Based Mud	--	0.0	--	--	253.00
14	Jan 20,2016 04:52	Displace Plug	Water Based Mud	8.00	600.0	--	152.00	405.00
		Remarks: slowed last 5 bbl to 2 bbl per min						
15	Jan 20,2016 05:22	Pumping Pressure Before Bump	Water Based Mud	2.00	500.0	--	--	405.00
16	Jan 20,2016 05:23	Bump Plug	Water Based Mud	--	1,500.0	--	--	405.00
		Remarks: bumped plug 1,000 psi over						
17	Jan 20,2016 05:23	Hold Pressure	Water Based Mud	--	1,500.0	--	--	405.00
		Remarks: 10 min casing test						
18	Jan 20,2016 05:34	Check Float	Water Based Mud	--	0.0	--	--	405.00
		Remarks: floats held got .75 bbl back						
19	Jan 20,2016 05:35	Tailgate Meeting		--	--	--	--	405.00
		Remarks: revisited JSA						
20	Jan 20,2016 05:40	Rig Out		--	--	--	--	405.00
21	Jan 20,2016 06:00	Wash	Water	--	--	--	--	405.00
		Remarks: washed pumps and lines						
22	Jan 20,2016 06:15	Job Complete		--	--	--	--	405.00
23	Jan 20,2016 06:20	Pre-Departure Meeting		--	--	--	--	405.00
24	Jan 20,2016 06:30	Leave Location		--	--	--	--	405.00

Treatment Reports & Remarks

Did Float Hold: Yes
Fluid Returns : Yes
Type : Cement
Volume (bbl) : 60
Temperature (°F) : 75
FDAS Functioning Correctly : Yes
Was the Program Followed As Per Design? : Yes

Material Transfer Sheet Number

Material Transfer Sheet Number

63382

63383

63384



Client Whiting
Ticket No. 9209048
Location NW NW Sec. 7-T10N-R57W
Comments Lead Cement: 390 sks Control Set 'C' + .25 lb/sk LCL-7
Tail Cement: 230 sks 0:1:0 Type III + 2% CaCl₂ + .25 lb/sk LCL-7

Client Rep Mr. BJ Honeycutt
Well Name Horsetail 07E-1803
Job Type Surface Casing

Supervisor Pat Schneider
Unit No. 445047
Service District Ft. Lupton
Job Date 01/20/2016

