



Cementing Service Report

9211479

Client Name Whiting Petroleum Corp.	Well Name Horsetail 07G - 0609	Rig Unit Drilling Co. 409	Job Date March 26, 2016	Call Sheet 1065777
Client Representative Mr. Kenny Ray Wilkerson	Surface Well Location Sec 18:T10N:R57W	Down Hole Well Location	Job Type Production Casing	Lead Supervisor Hansen, Kevin (27592)

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										
<u>Size (in)</u>		<u>Excess (%)</u>	<u>TMD From (ft)</u>		<u>TMD To (ft)</u>	<u>TVD From (ft)</u>		<u>TVD To (ft)</u>		
8.500		15.000	2,024.000		12,750.000	--		--		
Casing										
<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Collapse Pressure</u>	<u>Internal Yield Pressure</u>	<u>Capacity</u>	<u>I.D.</u>	<u>O.D.</u>	<u>Depth From</u>	<u>Depth To</u>	
<u>(in)</u>	<u>(lb/ft)</u>		<u>(psi)</u>	<u>(psi)</u>	<u>(bbl)</u>	<u>(in)</u>	<u>(in)</u>	<u>(ft)</u>	<u>(ft)</u>	
9.625	36.000	J-55	2,020.0	3,520.0	156.47	8.921	10.625	0.0	2,024.0	
5.500	23.000	---	--	--	--	--	--	0.0	12,745.0	

Products

Stage 1

From Depth (ft):

To Depth (ft):

Acids/Blends/Fluids :

Scavenger: 115 Sacks of 65% Class G / 35% Poz (1-2-0 G), Density = 11 lb/gal, Volume Pumped = 46.5 (bbl)

Water Temperature(°F) = 62 , Bulk Temperature(°F) = 63 , Slurry Temperature(°F) = 71

+ 0.4 % of ASM-3 (Preblend),

+ 0.5 % of CFL-10 (Preblend),

+ 0.1 % of LTR (Preblend),

+ 0.25 lb/sack of LCL-7 (Preblend),

+ 0.01 gal/bbl of CDF-3L (Add On The Fly)

Stage 2

From Depth (ft): 0

To Depth (ft): 2059

Acids/Blends/Fluids :

Lead 1: 325 Sacks of 65% Class G / 35% Poz (1-2-0 G), Density = 13.5 lb/gal, Volume Pumped = 86.2 (bbl)

Water Temperature(°F) = 62 , Bulk Temperature(°F) = 62 , Slurry Temperature(°F) = 70

+ 0.4 % of ASM-3 (Preblend),

+ 0.5 % of CFL-10 (Preblend),

+ 0.1 % of LTR (Preblend),

+ 0.25 lb/sack of LCL-7 (Preblend),

+ 0.01 gal/bbl of CDF-3L (Add On The Fly)

Stage 3

From Depth (ft): 2059

To Depth (ft): 12745

Acids/Blends/Fluids :

Tail: 1920 Sacks of 65% Class G / 35% Poz (1-2-0 G), Density = 13.5 lb/gal, Volume Pumped = 513 (bbl)

Water Temperature(°F) = 61 , Bulk Temperature(°F) = 61 , Slurry Temperature(°F) = 70

+ 0.3 % of ASM-3 (Preblend),

+ 0.5 % of CFL-10 (Preblend),

+ 0.1 % of LTR (Preblend),

+ 0.2 % of SPC-2 (Preblend),

+ 0.25 lb/sack of LCL-7 (Preblend),

+ 0.01 lb/gal of CDF-3L (Add On The Fly)

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

Tool Type	Depth (ft)	Supplier
Guide Shoe	12,745.000	Client
Float Collar	12,696.000	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>
200925	PICKUP	1 Ton	449086	TRAILER	Utility Trailer	03/26/2016 22:00	03/27/2016 10:00
445024	TRAILER	SCM Twin	745024	TRACTOR	Tandem - Tractor	03/26/2016 22:00	03/27/2016 10:00
445044	TRAILER	SCM Twin	745044	TRACTOR	Tandem - Tractor	03/26/2016 22:00	03/27/2016 10:00
446024	TRAILER	Bulker	746024	TRACTOR	Tandem - Tractor	03/26/2016 22:00	03/27/2016 10:00
201520	PICKUP	1/2 Ton	449200	TRAILER	Utility Trailer	03/26/2016 22:00	03/27/2016 10:00

Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Hansen, Kevin (27592)	03/26/2016 20:00	03/27/2016 10:00		
Hansen, Ted (29055)	03/26/2016 20:00	03/27/2016 10:00		
Cheal, Samuel (28315)	03/26/2016 20:00	03/27/2016 10:00		
Daylong, Eric (28076)	03/26/2016 20:00	03/27/2016 10:00		
Bushnell, Cody (21127)	03/26/2016 20:00	03/27/2016 10:00		

Treatment Reports & Remarks

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	Mar 26,2016 22:00	Arrive On Location		--	--	--	--	0.00
2	Mar 26,2016 22:10	Crew Briefing (Rig in)		--	--	--	--	0.00
		Remarks: Discussed spotting trucks and filled out JSA.						
3	Mar 27,2016 05:00	Rig in Complete		--	--	--	--	0.00
4	Mar 27,2016 05:30	Crew Briefing (Pre Job)		--	--	--	--	0.00
		Remarks: Discussed upcoming job and safety concerns with rig crew.						
5	Mar 27,2016 06:05	Pressure Test Start	Water	2.50	250.0	--	3.00	0.00
		Remarks: Filled lines for pressure test						
6	Mar 27,2016 06:09	Pressure Test Complete		--	5,000.0	--	--	0.00
		Remarks: Pressure test good.						
7	Mar 27,2016 06:10	Pump Preflush	Water	6.00	650.0	--	30.00	30.00
		Remarks: Pumped mud flush- SAPP & WS-30						
8	Mar 27,2016 06:18	Pump Preflush	Water	6.00	550.0	--	30.00	60.00
		Remarks: Pumped Visweep.						
9	Mar 27,2016 06:26	Mix Cement	65% Class G / 35% Poz (1-2-0 G)	6.00	750.0	--	47.00	107.00
		Remarks: Scavenger Slurry D-11.5, Y-2.27, WR-13.21						
10	Mar 27,2016 06:34	Job Complete		--	--	--	--	107.00
11	Mar 27,2016 06:35	Mix Cement	65% Class G / 35% Poz (1-2-0 G)	8.00	800.0	--	86.00	86.00
		Remarks: Lead cement @ D-13.5, Y-1.49, WR-7.49						
12	Mar 27,2016 06:43	Mix Cement	65% Class G / 35% Poz (1-2-0 G)	8.00	800.0	--	513.00	513.00
		Remarks: Tail @ D-13.5, Y-1.5, WR-7.5						
13	Mar 27,2016 07:48	Pump Out Lines	Water	2.00	0.0	--	5.00	518.00
14	Mar 27,2016 07:50	Drop Plug		--	--	--	--	518.00
15	Mar 27,2016 07:51	Displace Fluid	Water	8.00	2,000.0	--	280.00	798.00
		Remarks: Displaced with customer supplied Chems.						
16	Mar 27,2016 08:38	Bump Plug		8.00	2,500.0	--	280.00	1,078.00
		Remarks: Bumped 500 over. Slowed to 2.5 bbl minute last 10 bbl						
17	Mar 27,2016 08:40	Check Float		--	--	--	--	1,078.00
		Remarks: Floats held 3 bbl back.						
18	Mar 27,2016 08:50	Wash		--	--	--	--	1,078.00
19	Mar 27,2016 09:15	Rig Out		--	--	--	--	1,078.00
20	Mar 27,2016 09:50	Pre-Departure Meeting		--	--	--	--	1,078.00
		Remarks: Discussed journey management						
21	Mar 27,2016 10:00	Leave Location		--	--	--	--	107.00

Treatment Reports & Remarks

Did Float Hold: Yes
Fluid Returns : Yes
Type : Cement
Volume (bbl) : 35
Temperature (°F) : 72
FDAS Functioning Correctly : Yes
Was the Program Followed As Per Design? : Yes

Material Transfer Sheet Number

Material Transfer Sheet Number

67102
67114
67100
67101
67103
67104
67105



Client Whiting Petroleum Corp
Ticket No. 9211479
Location Sec 18:T10N:R57W
Comments 115 sacks Scavenger @ D-11.5
325 sacks Lead @ D-13.5
1920 sacks Tail @ D-13.5

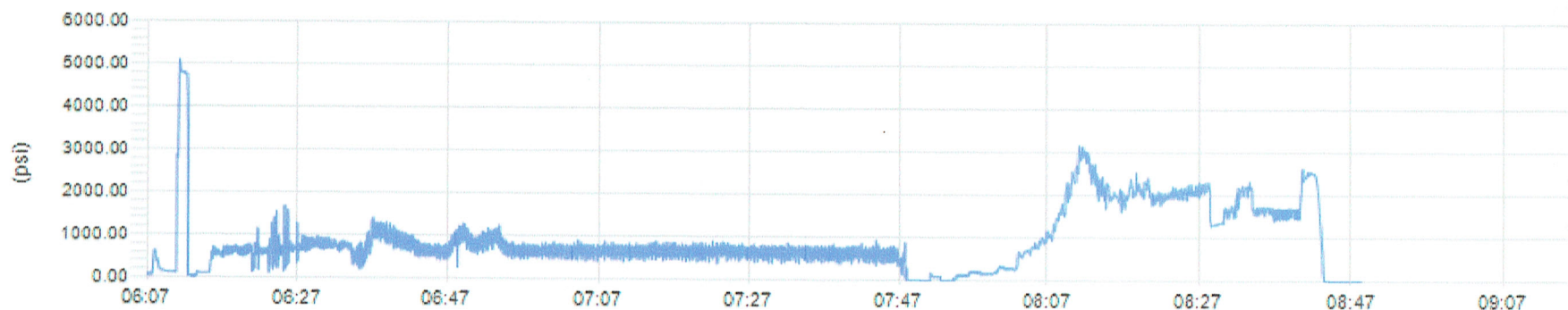
Client Rep Kenny Wilkerson
Well Name Horsetail O7G-0609
Job Type Production Casing

Supervisor Kevin Hansen
Unit No. 745024
Service District Ft Lupton
Job Date 03/26/2016

Unit 745024 Rate Total



Unit 745024 Pump Pressure



Unit 745024 Density

