



Cementing Service Report

9211386

Client Name Whiting Petroleum Corp.	Well Name Horsetail 07G-1809	Rig Unit Drilling Co. 409	Job Date April 01, 2016	Call Sheet 1065849
Client Representative Mr. Kenny Ray Wilkerson	Surface Well Location Sec 18:T10N:R57W	Down Hole Well Location	Job Type Production Casing	Lead Supervisor Laeger, Kacey (25046)

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)	
8.500	--	2,050.000	13,908.000	--	--	

Casing									
Size (in)	Weight (lb/ft)	Grade	Collapse Pressure (psi)	Internal Yield Pressure (psi)	Capacity (bbl)	I.D. (in)	O.D. (in)	Depth From (ft)	Depth To (ft)
9.625	36.000	J-55	2,020.0	3,520.0	156.48	8.921	10.625	0.0	2,050.0
5.500	23.000	N-80	11,160.0	9,880.0	294.33	4.670	6.050	0.0	13,893.0

Products

Stage 1

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

Acids/Blends/Fluids :

Scavenger: 115 Sacks of 65% Class G / 35% Poz (1-2-0 G), Density = 11 lb/gal, Volume Pumped = 30.5 (bbl)
 Water Temperature(°F) = 53 , Bulk Temperature(°F) = 36 , Slurry Temperature(°F) = 68
 + 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): 214

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) = 53 , Bulk Temperature(°F) = 36 , Slurry Temperature(°F) = 68
 + 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): 214
 To Depth (ft): 13893

Acids/Blends/Fluids :

Tail: 2130 Sacks of 65% Class G / 35% Poz (1-2-0 G), Density = 13.5 lb/gal, Volume Pumped = 569 (bbl)
 Water Temperature(°F) = 53 , Bulk Temperature(°F) = 36 , Slurry Temperature(°F) = 68
 + 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
Float Collar	13,845.000	Third Party
Guide/Float Shoe	13,893.000	Third Party

Tubular Plugs

Tubular Plug Type	Size (in)	Supplier
Latch Down Top	5.500	Third Party



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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>
449087	TRAILER	Utility Trailer	201352	PICKUP	1 Ton	04/01/2016 07:00	04/01/2016 15:30
445051	TRAILER	SCM Twin	745051	TRACTOR	Tandem - Tractor	04/01/2016 07:00	04/01/2016 15:30
445033	TRAILER	SCM Twin	745033	TRACTOR	Tandem - Tractor	04/01/2016 07:00	04/01/2016 15:30
201401	PICKUP	1 Ton	449200	TRAILER	Utility Trailer	04/01/2016 07:00	04/01/2016 15:30
446173	TRAILER	Bulker	746173	TRACTOR	Tandem - Tractor	04/01/2016 07:00	04/01/2016 15:30
449183	TRAILER	1600 Porta Bulker				04/01/2016 07:00	04/01/2016 15:30
449122	TRAILER	1600 Porta Bulker				04/01/2016 07:00	04/01/2016 15:30

Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Laeger, Kacey (25046)	04/01/2016 07:00	04/01/2016 15:30		
Cheal, Samuel (28315)	04/01/2016 07:00	04/01/2016 15:30		
Decenick, Scott (30083)	04/01/2016 07:00	04/01/2016 15:30		
Schnalder, Patrick (24093)	04/01/2016 07:00	04/01/2016 15:30		
Decenick, Scott (30083)	04/01/2016 07:00	04/01/2016 15:30		
Decenick, Scott (30083)	04/01/2016 07:00	04/01/2016 15:30		
Decenick, Scott (30083)	04/01/2016 07:00	04/01/2016 15:30		

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	Apr 01, 2016 07:00	Arrive On Location		--	--	--	--	0.00
		Remarks: Requested on location time 07:00						
2	Apr 01, 2016 07:03	Crew Briefing (Rig in)		--	--	--	--	0.00
3	Apr 01, 2016 09:10	Rig in Complete		--	--	--	--	0.00
4	Apr 01, 2016 10:10	Crew Briefing (Pre Job)		--	--	--	--	0.00
5	Apr 01, 2016 11:39	Pressure Test Start	Water	--	5,200.0	--	--	0.00
6	Apr 01, 2016 11:41	Pressure Test Complete	Water	--	5,140.0	--	--	0.00
7	Apr 01, 2016 11:44	Pump Preflush	Water	6.00	50.0	0.0	30.00	30.00
		Remarks: Mudflush						
8	Apr 01, 2016 11:51	Pump Preflush	Water	5.50	450.0	0.0	30.00	60.00
		Remarks: Visweep						
9	Apr 01, 2016 11:58	Pump Scavenger	65% Class G / 35% Poz (1-2-0 G)	7.50	800.0	0.0	30.00	90.00
		Remarks: 115sx of Scavenger @ 13.5# 1.49 yield / 7.49 H2O						
10	Apr 01, 2016 12:02	Mix Cement	65% Class G / 36% Poz (1-2-0 G)	8.50	1,100.0	0.0	85.00	175.00
		Remarks: 325sx of Lead @ 13.5# 1.49 yield / 7.49 H2O						
11	Apr 01, 2016 12:13	Mix Cement	65% Class G / 35% Poz (1-2-0 G)	8.50	700.0	0.0	563.00	738.00
		Remarks: 2130sx of Tail @ 13.5# 1.50 yield / 7.50 H2O						
12	Apr 01, 2016 13:17	Wash	Water	2.00	120.0	0.0	5.00	738.00
		Remarks: Flush lines before dropping plug						
13	Apr 01, 2016 13:22	Drop Plug	---	--	--	--	--	738.00
14	Apr 01, 2016 13:23	Pump Displacement	Water	8.50	1,000.0	0.0	290.00	1,028.00
		Remarks: LED indicator flashed green and buzzed when plug went						
15	Apr 01, 2016 14:11	Pumping Pressure Before Bump	Water	2.80	1,700.0	0.0	0.00	1,028.00
16	Apr 01, 2016 14:11	Bump Plug	Water	2.80	2,200.0	0.0	0.00	1,028.00
		Remarks: 290bbbls bumped plug						
17	Apr 01, 2016 14:14	Check Float		--	--	--	--	1,028.00
		Remarks: Floats heldvand got 1bbl back						
18	Apr 01, 2016 14:14	Job Complete		--	--	--	--	1,028.00
19	Apr 01, 2016 14:16	Rig Out		--	--	--	--	0.00
20	Apr 01, 2016 15:30	Leave Location		--	--	--	--	1,028.00

Treatment Reports & Remarks	
Did Float Hold:	Yes
Fluid Returns :	Yes
Type :	Cement
Volume (bbl) :	15
Temperature (°F) :	93
FDAS Functioning Correctly :	Yes
Was the Program Followed As Per Design? :	Yes
Material Transfer Sheet Number	
<u>Material Transfer Sheet Number</u>	
	967140
	967135
	967137
	967139
	967138



Client: Whiting Petroleum Co
Ticket No.: 9211386
Location: Sec 18:T10:R57W
Comments: See Data logs

Client Rep: Mr. Kenny Ray Wilkerson
Well Name: Horsetail 07G-1809
Job Type: Production Casing

Supervisor: Kacey Laeger
Unit No.: 745051
Service District: Fort Lupton
Job Date: 04/01/2016

