

9209100

Client Name Whiting Petroleum Corp.	Well Name Horsetail 07E-1803	Rig Unit Drilling Co. 409	Job Date January 23, 2016	Call Sheet 1064265
Client Representative BJ	Surface Well Location NW NW Sec 7:T10N:R57W	Down Hole Well Location	Job Type Production Casing	Lead Supervisor Svoboda, Miloslav (28226)

### 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	2,023.000	13,917.000	--	5,781.000

### 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	156.39	8.921	10.625	0.0	2,023.0
5.500	20.000	P-110	11,080.0	12,640.0	308.45	4.778	6.050	0.0	13,909.0

### Products

#### Stage 1

From Depth (ft): 0

To Depth (ft): 0

Acids/Blends/Fluids :

Scavenger: 125 Sacks of 50% Class III / 50% Poz (1-1-0 III), Density = 11.5 lb/gal, Volume Pumped = 51 (bbl)

- + 0.3 % of ASM-3 (Preblend),
- + 0.5 % of CFL-10 (Preblend),
- + 2 % of FWC-2 (Preblend),
- + 0.1 % of LTR (Preblend),
- + 0.25 lb/sack of LCL-7 (Preblend)

#### Stage 2

From Depth (ft): 0

To Depth (ft): 3639

Acids/Blends/Fluids :

Lead 1: 670 Sacks of 50 % Class III / 50 % Poz, Density = 12 lb/gal, Volume Pumped = 234 (bbl)

Water Temperature(°F) = 33 , Bulk Temperature(°F) = 31 , Slurry Temperature(°F) = 56

- + 0.3 % of ASM-3 (Preblend),
- + 0.5 % of CFL-10 (Preblend),
- + 2 % of FWC-2 (Preblend),
- + 0.1 % of LTR (Preblend),
- + 0.25 lb/sack of LCL-7 (Preblend)

#### Stage 3

From Depth (ft): 3639

To Depth (ft): 13909

Acids/Blends/Fluids :

Tail: 1260 Sacks of 65% Class G / 35% Poz (1-2-0 G), Density = 13.5 lb/gal, Volume Pumped = 420 (bbl)

Water Temperature(°F) = 33 , Bulk Temperature(°F) = 31 , Slurry Temperature(°F) = 56

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+ 0.3 % of ASM-3 (Preblend),  
 + 0.5 % of CFL-10 (Preblend),  
 + 25 % of Silica Flour (Preblend),  
 + 4 % of FWC-2 (Preblend),  
 + 0.1 % of LTR (Preblend),  
 + 0.2 % of SPC-2 (Preblend),  
 + 0.25 lb/sack of LCL-7 (Preblend)

**Fluid & Cement Data**

Expected Cement Top: Surface

**Wellbore Fluid**

<u>Fluid Type</u>	<u>Viscosity (cP)</u>	<u>Density (lbs/gal)</u>	<u>Yield Point (psi)</u>	<u>Temperature (°F)</u>	<u>Recorded@</u>
Water	--	8.340	--	--	Jul 07, 2015 14:19
Water Based Mud	--	10.000	--	--	Jul 11, 2015 17:09

**Attachment & Tools****Down Hole Tools**

<u>Tool Type</u>	<u>Depth (ft)</u>	<u>Supplier</u>
Guide Shoe	13,909.000	Client
Float Collar	13,860.000	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	449095	TRAILER	Utility Trailer	01/24/2016 00:30	01/24/2016 07:00
445052	TRAILER	SCM Twin	745052	TRACTOR	Tandem - Tractor	01/24/2016 00:30	01/24/2016 07:00
445024	TRAILER	SCM Twin	745024	TRACTOR	Tandem - Tractor	01/24/2016 00:30	01/24/2016 07:00

**Crew and Bonuses**

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Svoboda, Miloslav (28226)	01/23/2016 09:00	01/24/2016 18:30		
Ripka, Robert (23825)	01/23/2016 09:00	01/24/2016 18:30		
Johnson, Jakob (30073)	01/23/2016 09:00	01/24/2016 18:30		
Hilt, Brandon (30128)	01/23/2016 09:00	01/24/2016 18:30		

**Treatment Reports & Remarks**

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### 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 24,2016 00:30	Arrive On Location		--	--	--	--	0.00
		Remarks: sing in						
2	Jan 24,2016 00:40	Crew Briefing (Rig in)		--	--	--	--	0.00
		Remarks: tailgate meeting						
3	Jan 24,2016 01:15	Rig in Complete		--	--	--	--	0.00
4	Jan 24,2016 01:20	Crew Briefing (Pre Job)		--	--	--	--	0.00
		Remarks: JSA wit OSR, rig crew						
5	Jan 24,2016 01:51	Pressure Test Start	Water	2.00	8,700.0	--	2.00	2.00
6	Jan 24,2016 01:53	Pressure Test Complete		--	--	--	--	2.00
		Remarks: pressure held						
7	Jan 24,2016 01:55	Pump Preflush	Water	5.00	500.0	--	30.00	32.00
		Remarks: SAPP + WWS3						
8	Jan 24,2016 02:02	Pump Preflush	Water	5.00	600.0	--	30.00	62.00
		Remarks: Visweep						
9	Jan 24,2016 02:07	Mix Cement	50% Class III / 50% Poz (1-1-0 III)	7.00	900.0	--	51.00	113.00
		Remarks: scavenger						
10	Jan 24,2016 02:14	Mix Cement	50 % Class III / 50 % Poz	7.00	300.0	--	234.00	347.00
		Remarks: lead						
11	Jan 24,2016 02:49	Mix Cement	65% Class G / 35% Poz (1-2-0 G)	7.00	400.0	--	420.00	767.00
		Remarks: tail						
12	Jan 24,2016 03:53	Drop Plug		--	--	--	--	767.00
13	Jan 24,2016 03:58	Displace Plug	Water	7.50	1,400.0	--	308.00	1,075.00
14	Jan 24,2016 04:45	Bump Plug	Water	--	2,100.0	--	--	1,075.00
15	Jan 24,2016 04:47	Check Float	Water	--	--	--	--	1,075.00
		Remarks: got 2 bbls back						
16	Jan 24,2016 05:00	Wash		--	--	--	--	1,075.00
		Remarks: wash pump						
17	Jan 24,2016 05:30	Rig Out		--	--	--	--	1,075.00
18	Jan 24,2016 06:00	Job Complete		--	--	--	--	1,075.00
19	Jan 24,2016 06:30	Pre-Departure Meeting		--	--	--	--	1,075.00
		Remarks: AAR						
20	Jan 24,2016 07:00	Leave Location		--	--	--	--	1,075.00

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Did Float Hold: Yes

Fluid Returns : Yes

Type : Cement

Volume (bbl) : 45

Temperature (°F) : 65

FDAS Functioning Correctly : Yes

Was the Program Followed As Per Design? : Yes

### Material Transfer Sheet Number

#### Material Transfer Sheet Number

63404

63403

63405

63406

63414

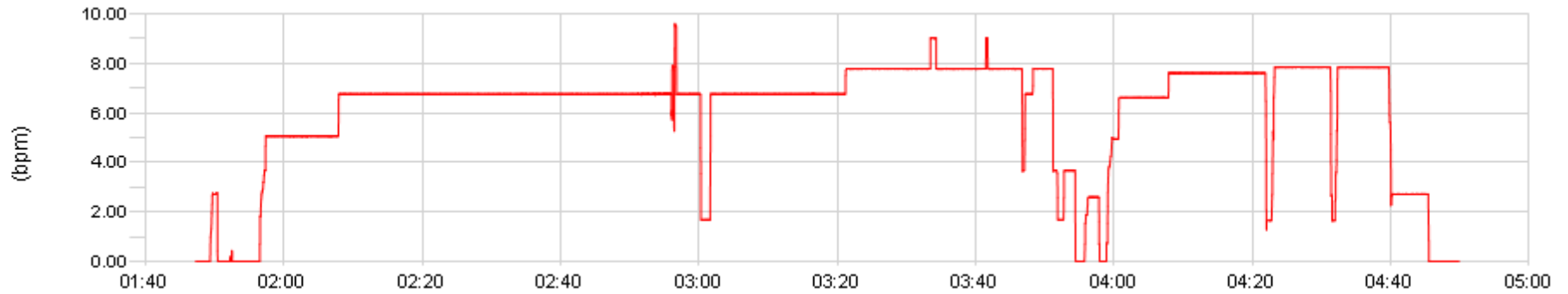


Client Whiting  
Ticket No. 9209100  
Location NW NW Sec 7:T10N:R57W  
Comments pump per program

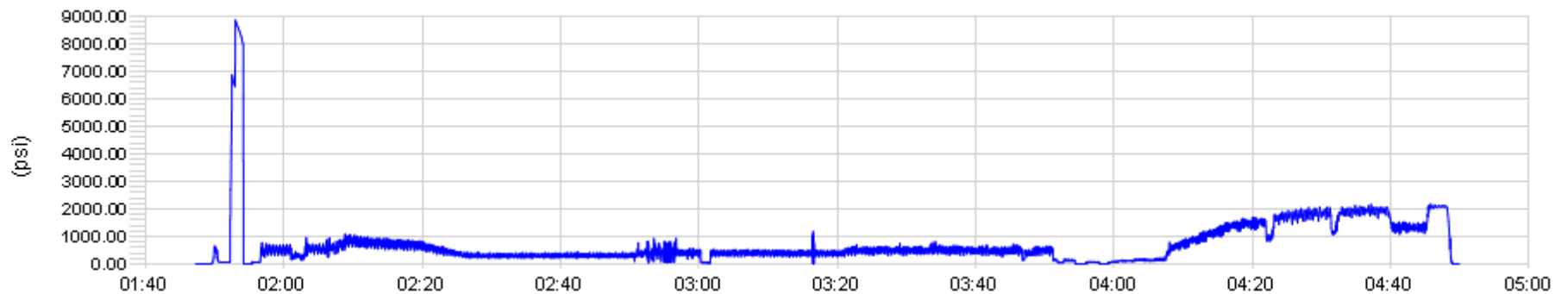
Client Rep Tyson  
Well Name Horsetail 07E-1803  
Job Type Production Casing

Supervisor MiloSvoboda  
Unit No. 445052  
Service District D505  
Job Date 01/24/2016

Unit 445052 Rate Total



Unit 445052 Pump Pressure



Unit 445052 Density

