



## Pumping Service Report

**9200687**

API: 05-123-39305-00

Client Name Whiting Petroleum Corp.	Well Name Razor 330 - 2812	Rig Frontier 9	Job Date December 02, 2014	Call Sheet 1051362
Client Representative Trever	Surface Well Location SW SE Sec 33:T10N:R58W	Down Hole Well Location	Job Type Surface Casing	

### Well Profile

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

### Open Hole

Size (in)	Excess (%)	TMD From (ft)	TMD To (ft)	TVD From (ft)	TVD To (ft)
13.500	25.000	0.000	1,570.000	—	—

### 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	120.29	8.921	10.625	0.0	1,557.0

### Products

#### Stage 1

From Depth (ft):	0
To Depth (ft):	1570 <b>Correction: 1557'</b>

Acids/Blends/Fluids :

Tail: 680 Sacks of 0:1:0 Type III, Density = 14.2 lb/gal, Volume Pumped = 178 (bbl)  
Water Temperature(°F) = 43 , Bulk Temperature(°F) = 40 , Slurry Temperature(°F) = 50  
+ 0.25 lb/sack of Polyflake (Preblend),  
+ 1 % of CaCl<sub>2</sub> (Preblend)

### Fluid & Cement Data

Expected Cement Top: Surface

#### Wellbore Fluid

Fluid Type	Viscosity (cP)	Density (lbs/gal)	Yield Point (psi)	Temperature (°F)	Recorded@
Water	—	8.400	—	—	Jul 14, 2014 20:27
Water Based Mud	—	—	—	—	Oct 09, 2014 19:06

### Attachment & Tools

#### Down Hole Tools

Tool Type	Depth (ft)	Supplier
Guide Shoe	1,557.000	Third Party
Float Collar	1,512.000	Third Party

#### Tubular Plugs

Tubular Plug Type	Size (in)	Supplier
Rubber Top	9.625	Client



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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>
201274	PICKUP	3/4 Ton				12/02/2014 08:00	12/02/2014 19:00
445047	TRAILER	SCM Twin	745047	TRACTOR	Tandem - Tractor	12/02/2014 08:00	12/02/2014 19:00

**Crew and Bonuses**

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Schneider, Patrick	12/02/2014 08:00	12/02/2014 17:00		
Martinez, Fernando	12/02/2014 08:00	12/02/2014 17:00		
Young, Craig	12/02/2014 08:00	12/02/2014 17:00		
Yates, William	12/02/2014 08:00	12/02/2014 17:00		

**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	Dec 02,2014 08:00	Arrive On Location	---	--	--	--	--	0.00
2	Dec 02,2014 08:05	STEACS Briefing	---	--	--	--	--	0.00
		Remarks: discussed lease hazards and rig in procedures						
3	Dec 02,2014 08:35	Wait On Instructions	---	--	--	--	--	0.00
4	Dec 02,2014 15:00	Rig In	---	--	--	--	--	0.00
5	Dec 02,2014 16:00	Safety Meeting	---	--	--	--	--	0.00
6	Dec 02,2014 16:30	Sign-off on Safety	---	--	--	--	--	0.00
7	Dec 02,2014 16:38	Start - Fluid	Water	2.00	50.0	--	2.00	2.00
		Remarks: filled lines						
8	Dec 02,2014 16:41	Pressure Test Lines	Water	--	3,000.0	--	--	2.00
		Remarks: good pressure test						
9	Dec 02,2014 16:43	Pump Preflush	Water	4.00	75.0	--	20.00	22.00
		Remarks: fresh water preflush						
10	Dec 02,2014 16:48	Pump Spacer	Water	4.00	75.0	--	10.00	32.00
		Remarks: dyed water spacer						
11	Dec 02,2014 16:51	Mix Cement	0:1:0 Type III	6.00	300.0	--	178.00	210.00
		Remarks: tail cement @ 14.2 ppg yield = 1.47 h <sub>2</sub> O req = 7.36						
12	Dec 02,2014 17:22	Drop Plug	---	--	0.0	--	--	210.00
13	Dec 02,2014 17:23	Displace Plug	Water	6.00	600.0	--	118.50	328.50
		Remarks: 5 min stage @ 105 bbl away, pumped 1/2 shoe track over						
14	Dec 02,2014 17:53	Finish Displacement	Water	--	600.0	--	--	328.50
		Remarks: did not bump plug						
15	Dec 02,2014 17:55	Check Float	---	--	0.0	--	--	328.50
		Remarks: float held						
16	Dec 02,2014 18:00	Tailgate Meeting	---	--	--	--	--	0.00
		Remarks: revisited JSA						
17	Dec 02,2014 18:10	Rig Out	---	--	--	--	--	0.00
18	Dec 02,2014 18:30	Wash	Water	--	--	--	20.00	0.00
		Remarks: washed pumps and lines						
19	Dec 02,2014 18:45	Job Complete	---	--	--	--	--	0.00
20	Dec 02,2014 18:50	Pre-Departure Meeting	---	--	--	--	--	0.00
21	Dec 02,2014 19:00	Leave Location	---	--	--	--	--	0.00

Did Float Hold: Yes  
Fluid Returns : Yes  
Type : Cement  
Volume (bbl) : 27  
Temperature (°F) : 60  
FDAS Functioning Correctly : Yes  
Was the Program Followed As Per Design? : Yes



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**Treatment Reports & Remarks**

**Material Transfer Sheet Number**

Material Transfer Sheet Number

54179

54280

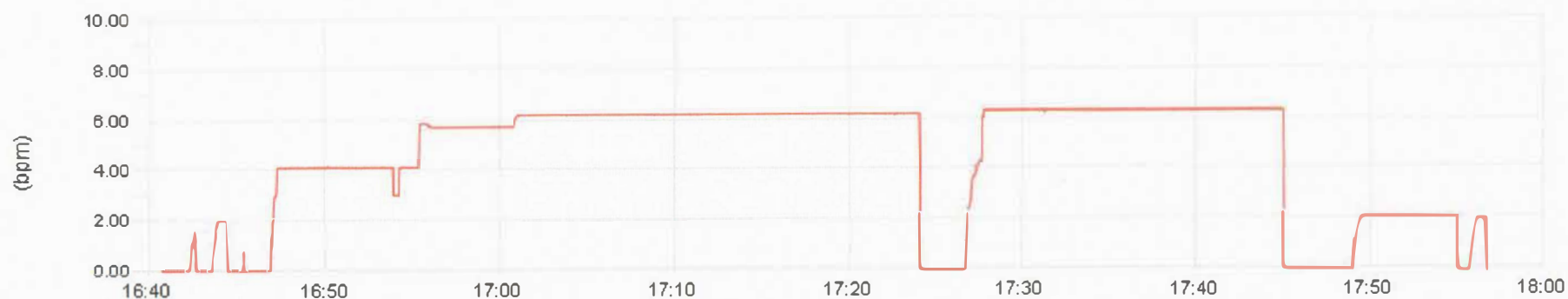
**Comments To Service Report**

arrived on location, STEACS briefing held, waited for rig to run casing, spotted trucks, rigged in, Safety meeting held, filled lines and pressure tested to 3,000 psi, pumped 20 bbl fresh water preflush, pumped 10 bbl dyed water spacer, pumped 178 bbl cement @ 14.2 ppg, dropped plug, displaced 118.5 bbl water, did not bump plug, check float, revisit JSA, rigged out, washed pumps and lines, pre departure meeting held, leave location

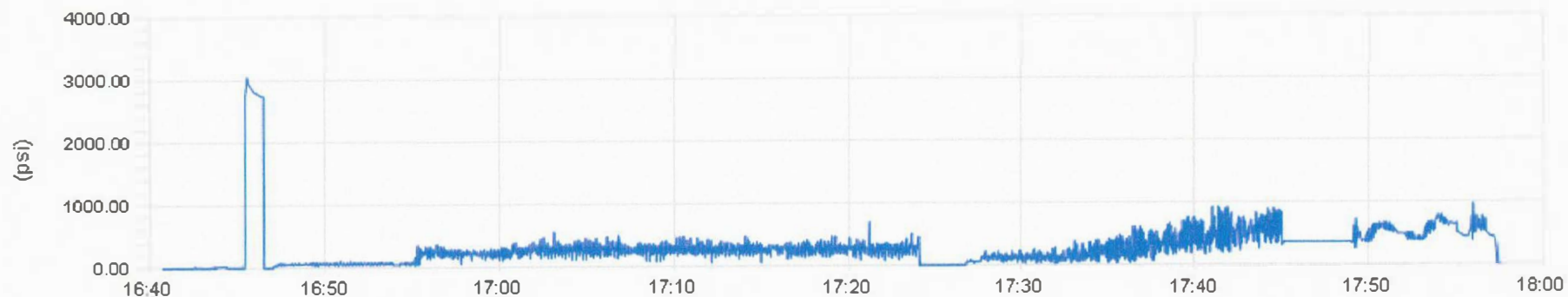


Client	Whiting	Client Rep	Mr. Chris	Supervisor	Pat Schneider
Ticket No.	9200687	Well Name	Razor 33O-2812	Unit No.	445047
Location	Sec. 33 - T10N - R58W	Job Type	Surface Casing	Service District	Ft. Lupton
Comments	680 sks 0:1:0 Type III + 1% CaCl2 + .25 lb/sk Polyflake			Job Date	12/02/2014

Unit 445047 Rate Total



Unit 445047 Pump Pressure



Unit 445047 Density

