



## Pumping Service Report

**9201540**

API: 05-123-39258-00

Client Name Whiting Petroleum Corp.	Well Name Razor 33M - 2804	Rig Pioneer Drilling 54	Job Date December 24, 2014	Call Sheet 1052551
Client Representative BJ	Surface Well Location SWSW Sec 33:T10N:R58W	Down Hole Well Location	Job Type Intermediate Casing	Lead Supervisor Douglass, Brian (23898)

### 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)
8.750	30.000	--	--	--	--

### 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)
7.000	29.000		--	--	--	--	--	0.0	6,170.0

### Products

#### Stage 1

From Depth (ft): 0  
To Depth (ft): 6170

#### Acids/Blends/Fluids :

Lead 1: 445 Sacks of 1:2:6 POZ G Gel, Density = 12.5 lb/gal, Volume Pumped = 149 (bbl)  
Water Temperature(°F) = 55 , Bulk Temperature(°F) = 35 , Slurry Temperature(°F) = 75  
+ 0.2 % of CFR (Preblend),  
+ 0.5 % of CFL-4 (Preblend),  
+ 0.15 % of LTR (Preblend),  
+ 0.25 lb/sack of Polyflake (Preblend)

Tail: 215 Sacks of 1:1:0 Poz G Gel, Density = 13.5 lb/gal, Volume Pumped = 58 (bbl)  
Water Temperature(°F) = 55 , Bulk Temperature(°F) = 35 , Slurry Temperature(°F) = 80  
+ 8 % of Fume (Preblend),  
+ 2 % of Gel (Preblend),  
+ 0.1 % of CFR-5 (Preblend),  
+ 0.7 % of CFL-3 (Preblend),  
+ 0.3 % of LTR (Preblend),  
+ 0.25 lb/sack of Polyflake (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

<u>Tool Type</u>	<u>Depth (ft)</u>	<u>Supplier</u>
Guide Shoe	--	Third Party
Float Collar	--	Third Party

#### Tubular Plugs

<u>Tubular Plug Type</u>	<u>Size (in)</u>	<u>Supplier</u>
Rubber Top	7.000	Sanjel

### 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>
449093	TRAILER	Utility Trailer	201025	PICKUP	1 Ton	12/24/2014 11:30	12/24/2014 19:20
445051	TRAILER	SCM Twin	745051	TRACTOR	Tandem - Tractor	12/24/2014 11:30	12/24/2014 19:20

#### Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Douglass, Brian (23898)	12/24/2014 11:30	12/24/2014 19:20		
Tylo, Christopher (29799)	12/24/2014 11:30	12/24/2014 19:20		
Leue, David (28684)	12/24/2014 11:30	12/24/2014 19:20		
Melgarejo Herrera, Eduardo (26606)	12/24/2014 11:30	12/24/2014 19:20		



#### 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	Dec 24, 2014 16:40	Pump	1:2:6 POZ G Gel	6.00	800.0	--	149.00	149.00
2	Dec 24, 2014 11:30	Arrive On Location		--	--	--	--	149.00
3	Dec 24, 2014 11:40	Crew Briefing (Rig in)		--	--	--	--	149.00
4	Dec 24, 2014 12:30	Rig in Complete		--	--	--	--	149.00
5	Dec 24, 2014 16:00	Crew Briefing (Pre Job)		--	--	--	--	149.00
6	Dec 24, 2014 16:30	Pressure Test Start		--	3,500.0	--	--	149.00
7	Dec 24, 2014 16:32	Pressure Test Complete		--	--	--	--	149.00
8	Dec 24, 2014 16:34	Pump Preflush	Water	6.00	800.0	--	10.00	149.00
		Remarks: with red dye						
9	Dec 24, 2014 16:37	Pump Preflush	Water	6.00	1,000.0	--	20.00	149.00
		Remarks: with visweep						
10	Dec 24, 2014 16:40	Pump	1:2:6 POZ G Gel	6.00	800.0	--	149.00	298.00
11	Dec 24, 2014 16:55	Pump	1:1:0 Poz G Gel	6.00	500.0	--	58.00	356.00
12	Dec 24, 2014 17:12	Drop Plug		--	--	--	--	356.00
13	Dec 24, 2014 17:14	Displace Fluid	Water Based Mud	7.50	1,000.0	--	227.00	583.00
14	Dec 24, 2014 17:50	Bump Plug		--	1,500.0	--	--	583.00
15	Dec 24, 2014 17:55	Check Float		--	--	--	--	583.00
		Remarks: float held						
16	Dec 24, 2014 18:00	Rig Out		--	--	--	--	583.00
17	Dec 24, 2014 18:45	Job Complete		--	--	--	--	583.00
18	Dec 24, 2014 19:20	Leave Location		--	--	--	--	583.00

Did Float Hold: Yes

Fluid Returns : Yes

Type : Cement

Volume (bbl) : 10

Temperature (°F) : 80

FDAS Functioning Correctly : Yes

Was the Program Followed As Per Design? : Yes

##### Material Transfer Sheet Number

Material Transfer Sheet Number

55338

55336

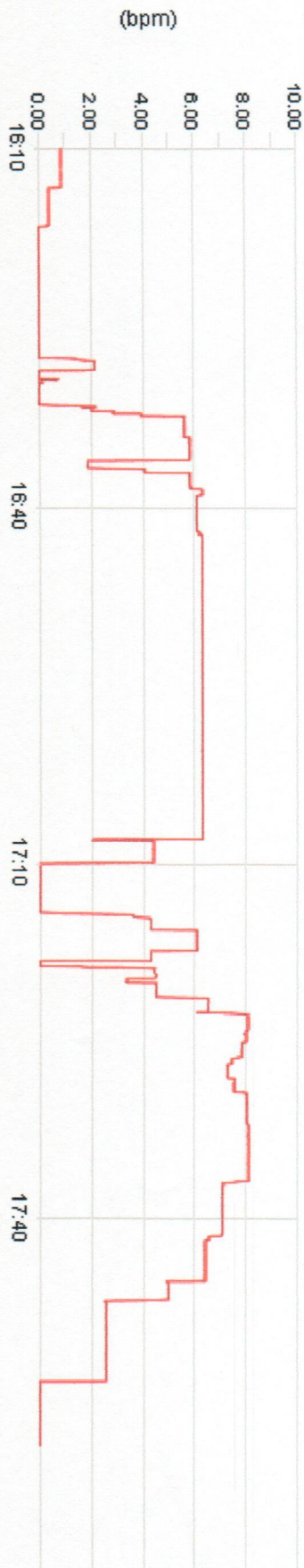
55337



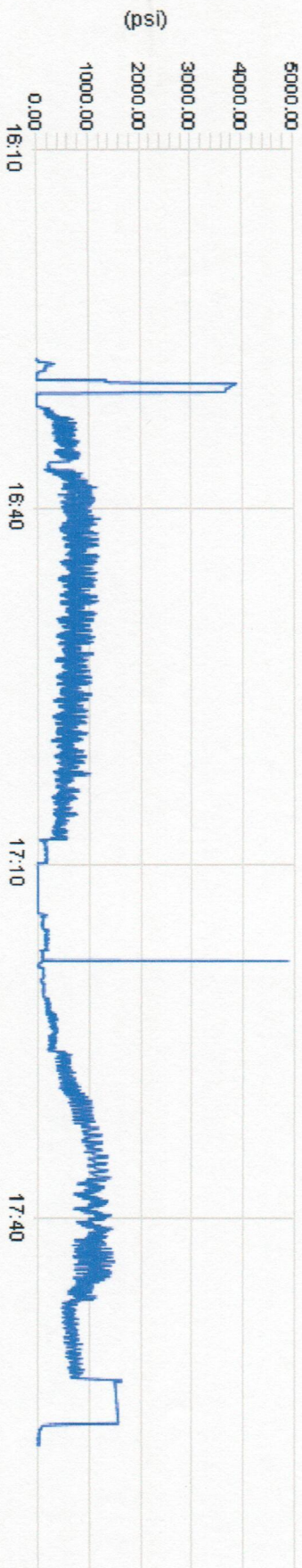


Client	WHITTING OIL AND GAS CORP	Client Rep	DAVID	Supervisor	BRIAN DOUGLASS
Ticket No.	9201540	Well Name	RAZOR 33M-2804	Unit No.	745051
Location	SEC.27-T10N-R58W	Job Type	Intermediate Casing	Service District	FORT LUPTON,CO
Comments	445 SX LEAD @ 12.5 PPG 215 SX TAIL @ 13.5 PPG			Job Date	12/24/2014

Unit 745051 Rate Total



Unit 745051 Pump Pressure



Unit 745051 Density

