



## Cementing Service Report

9207876

Client Name Whiting Petroleum Corp.	Well Name Razor Federal 12F - 0108B	Rig Unit Drilling Co. 409	Job Date August 05,2015	Call Sheet 1059741
Client Representative Tyson	Surface Well Location SE NE Sec 12:T10N:R58W	Down Hole Well Location	Job Type Liner 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

Size (in)	Excess (%)	TMD From (ft)	TMD To (ft)	TVD From (ft)	TVD To (ft)
6.000	15.000	0.000	13,515.000	--	5,900.000

### 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	32.000	P-110	10,760.0	9,520.0	227.27	6.094	7.656	0.0	6,300.0
4.500	11.600	P-110	7,560.0	10,690.0	127.73	4.000	5.000	5,293.0	13,511.0

### Drill Pipe

Size (in)	Weight (lb/ft)	Grade	Collapse Pressure (psi)	Capacity (bbl)	I.D. (in)	O.D. (in)	Depth From (ft)	Depth To (ft)
4.500	20.000	X	16,420.000	9.540	3.640	6.250	0.000	741.000
4.000	14.000	X	14,380.000	49.330	3.340	5.250	741.000	5,293.000

### Products

#### Stage 1

From Depth (ft): 5317

To Depth (ft): 13511

Acids/Blends/Fluids :

Tail: 560 Sacks of 1:1:0 Poz Dacotah G, Density = 13.7 lb/gal, Volume Pumped = 148 (bbl)

Water Temperature(°F) = 60 , Bulk Temperature(°F) = 60 , Slurry Temperature(°F) = 70

+ 8 % of Silica Fume (Preblend),

+ 2 % of Gel (Preblend),

+ 0.1 % of CFR-5 (Preblend),

+ 0.7 % of CFL-4 (Preblend),

+ 1 % of FWC-2 (Preblend),

+ 0.35 % of LTR (Preblend),

+ 0.2 % of ASM-3 (Preblend)

### Fluid & Cement Data

Expected Cement Top: Depth (ft): 5317

#### Wellbore Fluid

Fluid Type	Viscosity (cP)	Density (lbs/gal)	Yield Point (psi)	Temperature (°F)	Recorded@
Water	--	8.340	--	--	Jul 07, 2015 14:19

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

<u>Tool Type</u>	<u>Depth (ft)</u>	<u>Supplier</u>
Guide Shoe	13,511.000	Third Party
Liner Hanger	5,317.000	Third Party
Float Collar	13,465.000	

**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	201168	PICKUP	1 Ton	08/06/2015 02:00	08/06/2015 10:45
445024	TRAILER	SCM Twin	745024	TRACTOR	Tandem - Tractor	08/06/2015 02:00	08/06/2015 10:45

**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)	08/05/2015 23:00	08/06/2015 12:20		
Hansen, Kevin (27592)	08/05/2015 23:00	08/06/2015 12:20		
Cox, Brandon (27419)	08/05/2015 23:00	08/06/2015 12:20		
Martinez, Fernando (28421)	08/05/2015 23:00	08/06/2015 12:20		

**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	Aug 06,2015 02:00	Arrive On Location		--	--	--	--	0.00
		Remarks: gather informations						
2	Aug 06,2015 02:30	Crew Briefing (Rig in)		--	--	--	--	0.00
		Remarks: tailgate meeting						
3	Aug 06,2015 02:40	Rig in Complete		--	--	--	--	0.00
4	Aug 06,2015 02:50	Wait On Instructions		--	--	--	--	0.00
5	Aug 06,2015 05:30	Crew Briefing (Pre Job)		--	--	--	--	0.00
		Remarks: JSA with rig crew, tool pusher						
6	Aug 06,2015 06:55	Pressure Test Start		2.00	4,000.0	--	2.00	2.00
7	Aug 06,2015 06:57	Pressure Test Complete		--	--	--	--	2.00
		Remarks: pressure held						
8	Aug 06,2015 06:58	Pump Preflush	Water	5.00	1,900.0	--	30.00	32.00
		Remarks: visweep						
9	Aug 06,2015 07:04	Mix Cement	1:1:0 Poz Dacotah G	5.00	1,900.0	--	148.00	180.00
		Remarks: mixed & pumped away						
10	Aug 06,2015 07:35	Stop		--	0.0	--	--	180.00
		Remarks: pump out line						
11	Aug 06,2015 07:35	Drop Plug		--	--	--	--	180.00
		Remarks: tool pusher dropped dart						
12	Aug 06,2015 07:38	Pump Displacement	Water	5.00	2,000.0	--	156.00	336.00
13	Aug 06,2015 08:20	Bump Plug	Water	--	2,500.0	--	--	336.00
		Remarks: slow down last 10 bbl to 2 bbl/min						
14	Aug 06,2015 08:21	Stop		--	--	--	--	336.00
		Remarks: hold pressure for 5 min						
15	Aug 06,2015 08:30	Set Packer		--	--	--	--	336.00
16	Aug 06,2015 08:43	Pressure Test	Water	--	2,000.0	--	2.00	338.00
		Remarks: pressure test for back side						
17	Aug 06,2015 08:48	Stop	Water	--	0.0	--	--	338.00
		Remarks: pressure held						
18	Aug 06,2015 08:52	Pump	Water	5.00	1,200.0	--	115.00	453.00
		Remarks: role the hole						
19	Aug 06,2015 09:18	Stop		--	--	--	--	453.00
20	Aug 06,2015 09:27	Wash	Water	--	--	--	--	453.00
		Remarks: wash up pump						
21	Aug 06,2015 09:50	Job Complete		--	--	--	--	453.00
22	Aug 06,2015 10:10	Pre-Departure Meeting		--	--	--	--	453.00
23	Aug 06,2015 10:45	Leave Location		--	--	--	--	453.00

### Treatment Reports & Remarks

Did Float Hold: Yes  
Fluid Returns : Yes  
Type : Cement  
Volume (bbl) : 12  
Temperature (°F) : 90  
FDAS Functioning Correctly : Yes  
Was the Program Followed As Per Design? : Yes

### Material Transfer Sheet Number

Material Transfer Sheet Number

65332

65331