



Cementing Service Report

9209076

Client Name Whiting Petroleum Corp.	Well Name Razor Federal 12F - 0105A	Rig Unit Drilling Co. 409	Job Date November 11, 2015	Call Sheet 1062415
Client Representative Tyson	Surface Well Location SE NW 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	6,425.000	13,582.000	--	--

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	231.78	6.094	7.656	0.0	6,425.0
4.500	11.600	P-110	7,560.0	10,690.0	127.03	4.000	5.000	5,399.0	13,572.0

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)
4.000	27.000		--	--	--	--	4,655.660	5,396.430
4.000	19.000		--	--	--	--	0.000	4,655.660

Products

Stage 1

From Depth (ft): 5399

To Depth (ft): 13572

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) = 44 , Bulk Temperature(°F) = 48 , Slurry Temperature(°F) = 50

+ 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): 5399

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	13,572.000	Third Party
Float Collar	13,523.000	Third Party
Liner Hanger	5,396.000	Third Party

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	201191	PICKUP	1 Ton	11/11/2015 14:00	11/11/2015 23:59
445024	TRAILER	SCM Twin	745024	TRACTOR	Tandem - Tractor	11/11/2015 14:00	11/11/2015 23:59
449102	TRAILER	1600 Porta Bulker				11/11/2015 14:00	11/11/2015 23:59

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)	11/11/2015 09:00	11/11/2015 23:59		
Faircloth, Branden (29706)	11/11/2015 09:00	11/11/2015 23:59		
Hansen, Ted (29055)	11/11/2015 09:00	11/11/2015 23:59		
Bark, Eric (28944)	11/11/2015 09:00	11/11/2015 23:59		
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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	Nov 11,2015 14:00	Arrive On Location		--	--	--	--	0.00
		Remarks: sing in						
2	Nov 11,2015 14:10	Crew Briefing (Rig in)		--	--	--	--	0.00
		Remarks: tailgate meeting						
3	Nov 11,2015 15:35	Rig in Complete		--	--	--	--	0.00
4	Nov 11,2015 16:30	Crew Briefing (Pre Job)		--	--	--	--	0.00
		Remarks: JSA with rig crew, tool pusher						
5	Nov 11,2015 17:45	Pressure Test Start		2.00	4,000.0	--	2.00	0.00
6	Nov 11,2015 17:52	Pressure Test Complete		--	0.0	--	--	0.00
		Remarks: pressure held						
7	Nov 11,2015 17:57	Pump Preflush	Water	5.50	2,400.0	--	30.00	30.00
		Remarks: Visweep						
8	Nov 11,2015 18:04	Mix Cement	1:1:0 Poz Dacotah G	5.50	2,100.0	--	148.00	178.00
		Remarks: mixed & pumped away						
9	Nov 11,2015 18:34	Stop		--	--	--	--	178.00
10	Nov 11,2015 18:42	Pump Out Lines		--	--	--	--	178.00
11	Nov 11,2015 18:48	Displace Plug	Water	5.00	1,800.0	--	159.50	337.50
12	Nov 11,2015 19:26	Bump Plug	Water	2.00	2,600.0	--	--	337.50
13	Nov 11,2015 19:28	Check Float		--	--	--	--	337.50
		Remarks: 1.5 bbl back						
14	Nov 11,2015 19:31	Set Packer		--	--	--	--	337.50
15	Nov 11,2015 19:35	Stop		--	--	--	--	337.50
		Remarks: release pressure						
16	Nov 11,2015 09:36	Pump		8.00	2,000.0	--	160.00	337.50
		Remarks: role the hole						
17	Nov 11,2015 20:00	Stop		--	--	--	--	337.50
18	Nov 11,2015 14:00	Rig Out		--	--	--	--	337.50
19	Nov 11,2015 20:02	Pressure Test Lines		2.00	2,000.0	--	2.00	337.50
		Remarks: back side pressure test						
20	Nov 11,2015 20:07	Stop		--	--	--	--	337.50
		Remarks: pressure held						
21	Nov 11,2015 20:20	Rig Out		--	--	--	--	337.50
22	Nov 11,2015 21:00	Job Complete		--	--	--	--	337.50
23	Nov 11,2015 21:30	Pre-Departure Meeting		--	--	--	--	337.50
24	Nov 11,2015 22:00	Leave Location		--	--	--	--	337.50

Treatment Reports & Remarks

Did Float Hold: Yes
Fluid Returns : Yes
Type : Cement
Volume (bbl) : 22
Temperature (°F) : 85
FDAS Functioning Correctly : Yes
Was the Program Followed As Per Design? : Yes

Material Transfer Sheet Number

Material Transfer Sheet Number

63721

63720