



Pumping Service Report

9188731

Client Name Whiting Petroleum Corp.	Well Name Razor 27J-3410B	Rig Frontier 26	Job Date August 17, 2014	Call Sheet 1045691
Client Representative Kenny Wilkerson	Surface Well Location Sec 27: 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):	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)
13.500	25.000	0.000	1,615.000	--	--

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	124.05	8.921	10.625	0.0	1,604.6

Products

Stage 1

From Depth (ft) 0

To Depth (ft) 1604.6

Acids/Blends/Fluids:

Tail: 680 Sacks of 0.10 Type III, Density = 14.2 lb/gal, Volume Pumped = 180 (bbl)

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

+ 1 % of CaCl₂ (Preblend)

+ 0.25 % 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	--	--	--	--	Jul 26, 2014 15:47
Water Based Mud	--	8.500	--	--	Aug 17, 2014 13:51

Attachment & Tools

Down Hole Tools

Tool Type	Depth (ft)	Supplier
Float Collar	1,558.200	Third Party

Tubular Plugs

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



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Units & Personnel

Units							
Truck Unit No.	Main Type	Sub Type	Tractor Unit No.	Main Type	Sub Type	Time On Location	Time Off Location
449093	TRAILER	Utility Trailer	201191	PICKUP	1 Ton	08/17/2014 08:00	08/17/2014 15:00
445052	TRAILER	SCM Twin	745047	TRACTOR	Tandem - Tractor	08/17/2014 08:00	08/17/2014 15:00

Crew and Bonuses

Employee	Start Shift	End Shift	Second Start Shift	Second End Shift
Price, Ryan	08/17/2014 08:00	08/17/2014 15:00		
Davila, Israel	08/17/2014 08:00	08/17/2014 15:00		
Morris, Theodore	08/17/2014 08:00	08/17/2014 15:00		
Wright, Isaac	08/17/2014 08:00	08/17/2014 15:00		

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 17, 2014 08:00	Arrive On Location	---	--	--	--	--	0.00
2	Aug 17, 2014 08:05	Tailgate Meeting	---	--	--	--	--	0.00
3	Aug 17, 2014 08:10	N/A	---	--	--	--	--	0.00
		Remarks: rig still running casing, rigged in bulk, water, and ground iron then waited						
4	Aug 17, 2014 08:50	Wait On Instructions	---	--	--	--	--	0.00
		Remarks: rig still running casing						
5	Aug 17, 2014 10:40	Rig In	---	--	--	--	--	0.00
6	Aug 17, 2014 11:30	Safety Meeting	---	--	--	--	--	0.00
7	Aug 17, 2014 11:42	Sign-off on Safety	---	--	--	--	--	0.00
8	Aug 17, 2014 11:46	Pump	Water	1.00	25.0	--	2.00	0.00
		Remarks: filled lines for pressure test						
9	Aug 17, 2014 11:47	Pressure Test	---	--	3,000.0	--	--	0.00
10	Aug 17, 2014 11:49	Pump Spacer	Water	5.00	150.0	--	25.00	0.00
11	Aug 17, 2014 12:00	Mix Cement	0:1:0 Type III	5.00	300.0	--	180.00	0.00
12	Aug 17, 2014 12:38	Drop Plug	---	--	--	--	--	0.00
13	Aug 17, 2014 12:42	Pump Displacement	Water Based Mud	5.00	500.0	--	118.00	0.00
		Remarks: last 20 of displacement went to water						
14	Aug 17, 2014 13:10	Bump Plug	---	2.00	1,100.0	--	118.00	0.00
15	Aug 17, 2014 13:12	Check Float	---	--	--	--	--	0.00
		Remarks: floats held and got back 5 bbl						
16	Aug 17, 2014 13:40	Rig Out	---	--	--	--	--	0.00
17	Aug 17, 2014 14:20	Wash	Water	--	--	--	20.00	0.00
18	Aug 17, 2014 14:45	Job Complete	---	--	--	--	--	0.00
19	Aug 17, 2014 14:50	Pre-Departure Meeting	---	--	--	--	--	0.00
20	Aug 17, 2014 15:00	Leave Location	---	--	--	--	--	0.00



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Treatment Reports & Remarks

Did Float Hold: Yes
Fluid Returns: Yes
Type: Cement
Volume (bbl): 38
Temperature (°F): 70
FDAS Functioning Correctly: Yes
Was the Program Followed As Per Design?: Yes

Material Transfer Sheet Number

Material Transfer Sheet Number

46835

46836

Comments To Service Report

Job went great. Rig still running casing when we arrived. So we rigged in lay down bin and water and ground iron, then waited. Rig in was fast, great bulk delivery. Crew did a great job all around and company rep was happy with job..