



**Pumping
Service Report**

9193285

Client Name Whiting Petroleum Corp.	Well Name Razor 27J-2212B	Rig Frontier Drilling 26	Job Date August 15, 2014	Call Sheet 1045612
Client Representative Mr Tyson	Surface Well Location Sec 27:T10N:R58W	Down Hole Well Location	Job Type Liner Casing	

Well Profile

Well Type:	Oil		
Maximum Treating Pressure (psi):	---		
Predicted Bottom Hole Static Temperature (°F):	200.00	@	--
Bottom Hole Circulating Temperature (°F):	200.00	@	--
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	5,984.000	13,595.000	--	--

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	L-80	7,030.0	8,160.0	222.29	6.184	7.656	0.0	5,984.0
4.500	11.600	L-80	6,350.0	7,780.0	135.92	4.000	5.000	4,850.0	13,595.0

Products

Stage 1

From Depth (ft): 4850
To Depth (ft): 13595

Acids/Blends/Fluids :

Tail: 650 Sacks of 1-1-0 G, Density = 13.7 lb/gal, Volume Pumped = 171 (bbl)
Water Temperature(°F) = 63 , Bulk Temperature(°F) = 65 , Slurry Temperature(°F) = 78
+ 8 % of Silfume (Preblend),
+ 2 % of Gel (Preblend),
+ 0.1 % of CFR-5 (Preblend),
+ 0.7 % of CFL-4 (Preblend),
+ 1 % of FWCA-H (Preblend),
+ 0.45 % of LTR (Preblend),
+ 0.2 % of AS-3 (Preblend),
+ 0.25 lb/sack of Polyflake (Preblend)

Fluid & Cement Data

Expected Cement Top: --

Wellbore Fluid

Fluid Type	Viscosity (cP)	Density (lbs/gal)	Yield Point (psi)	Temperature (°F)	Recorded@
Water	--	--	--	--	May 20, 2014 04:37
Water Based Mud	--	--	--	--	Jun 17, 2014 09:17



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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
449095	TRAILER	Utility Trailer	201168	PICKUP	1 Ton		
445051	TRAILER	SCM Twin	745051	TRACTOR	Tandem - Tractor		

Crew and Bonuses					
Employee	Start Shift	End Shift	Second Start Shift	Second End Shift	
Ripka, Robert					
Smock, Curtis					
Lopez, Armando					
Lampp III, Larry					

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 15, 2014 16:00	Arrive On Location		--	--	--	--	0.00
2	Aug 15, 2014 16:05	Tailgate Meeting		--	--	--	--	0.00
3	Aug 15, 2014 16:10	Rig In		--	--	--	--	0.00
4	Aug 15, 2014 18:30	Safety Meeting		--	--	--	--	0.00
5	Aug 15, 2014 18:50	Sign-off on Safety		--	--	--	--	0.00
6	Aug 15, 2014 19:13	Pressure Test		--	5,000.0	--	--	0.00
7	Aug 15, 2014 19:15	Pump Spacer	Water	3.50	1,100.0	--	30.00	30.00
		Remarks: pumped w/ 1L						
8	Aug 15, 2014 19:25	Mix Cement	1-1-0 G	5.00	1,300.0	--	171.00	201.00
9	Aug 15, 2014 20:13	Drop Plug		--	--	--	--	201.00
10	Aug 15, 2014 20:13	Displace Fluid	Water	5.00	1,000.0	--	165.00	366.00
		Remarks: pump water with kcl						
11	Aug 15, 2014 16:10	Bump Plug		--	--	--	--	366.00
12	Aug 15, 2014 20:55	Check Float		--	--	--	--	366.00
13	Aug 15, 2014 21:04	Pressure Test		--	2,500.0	--	--	366.00
		Remarks: Pressure test casing to 2500 psi						
14	Aug 15, 2014 21:25	Reverse Circulate	Water	5.50	1,000.0	--	168.00	534.00
		Remarks: Clean out hole						
15	Aug 15, 2014 22:10	Rig Out		--	--	--	--	0.00
16	Aug 15, 2014 23:15	Job Complete		--	--	--	--	0.00
17	Aug 15, 2014 23:30	Pre-Departure Meeting		--	--	--	--	0.00
18	Aug 15, 2014 23:45	Leave Location		--	--	--	--	0.00



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Did Float Hold: Yes
Fluid Returns : Yes
Type : Cement
Volume (bbl) : 30
Temperature (°F) : 80
FDAS Functioning Correctly : Yes
Was the Program Followed As Per Design? : Yes

Material Transfer Sheet Number

Material Transfer Sheet Number

9501

9874