



**Pumping
Service Report**

9188114

Client Name Whiting Petroleum Corp.	Well Name Razor 26K-3507A	Job Date March 31, 2014	Call Sheet 1040645
Client Representative Kenny Wilkerson	Location Sec 26:T10N:R58W	Job Type Liner Casing	Rig Frontier Drilling 26

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					
<u>Size (in)</u>	<u>Excess (%)</u>	<u>TMD From (ft)</u>	<u>TMD To (ft)</u>	<u>TVD From (ft)</u>	<u>TVD To (ft)</u>
0.000	--	6,028.000	12,090.000	--	--

Casing									
<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Collapse Pressure</u>	<u>Internal Yield Pressure</u>	<u>Capacity</u>	<u>I.D.</u>	<u>O.D.</u>	<u>Depth From</u>	<u>Depth To</u>
(in)	(lb/ft)		(psi)	(psi)	(bbl)	(in)	(in)	(ft)	(ft)
9.625	36.000	J-55	2,020.0	3,520.0	115.96	8.921	10.625	0.0	1,500.0
7.000	26.000	J-55	4,330.0	4,980.0	173.25	6.276	7.656	1,500.0	6,028.0
4.500	11.600	L-80	6,350.0	7,780.0	111.80	4.000	5.000	4,871.0	12,064.0

Drill Pipe									
<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Collapse Pressure</u>	<u>Capacity</u>	<u>I.D.</u>	<u>O.D.</u>	<u>Depth From</u>	<u>Depth To</u>	
(in)	(lb/ft)		(psi)	(bbl)	(in)	(in)	(ft)	(ft)	
4.000	28.000	X	--	31.640	2.563	4.000	0.000	4,572.000	
4.000	14.000	E	11,350.000	3.240	3.340	5.250	4,572.000	4,871.000	

Products

Stage 1	
From Depth (ft):	4900
To Depth (ft):	12090
Acids/Blends/Fluids :	
Tail: 680 Sacks of 1-1-0 G, Density = 13.7 lb/gal, Volume Pumped = 174.3 (bbl)	
Water Temperature(°F) = 60 , Bulk Temperature(°F) = 60 , Slurry Temperature(°F) = 60	
+ 8 % of SilFume,	
+ 2 % of Gel,	
+ 0.1 % of CFR-5,	
+ 0.7 % of CFL-4,	
+ 1 % of FWCA-H,	
+ 0.55 % of LTR,	
+ 0.2 % of AS-3,	
+ 0.25 lb/sack of Polyflake	

Fluid & Cement Data

Expected Cement Top:	--				
Wellbore Fluid					
<u>Fluid Type</u>	<u>Viscosity (cP)</u>	<u>Density (lbs/gal)</u>	<u>Yield Point (psi)</u>	<u>Temperature (°F)</u>	<u>Recorded@</u>
Water	--	--	--	--	Mar 23, 2014 10:52



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Attachment & Tools

Down Hole Tools

<u>Tool Type</u>	<u>Depth (ft)</u>	<u>Supplier</u>
Liner Hanger	4,871.000	Client
Guide Shoe	12,064.000	Client

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>
449095	TRAILER	Utility Trailer	201191	PICKUP	1 Ton	03/30/2014 21:30	03/31/2014 15:30
445052	TRAILER	SCM Twin	745052	TRACTOR	Tandem - Tractor	03/30/2014 21:30	03/31/2014 15:30
749100	TRACTOR	Tandem - Tractor				03/30/2014 21:30	03/31/2014 15:30

Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Hardwick, Waco	03/30/2014 21:30	03/31/2014 15:30		
Joyner, Barlen	03/30/2014 21:30	03/31/2014 15:30		
Klosterman, Austin	03/30/2014 21:30	03/31/2014 15:30		
Hansen, Kevin	03/30/2014 21:30	03/31/2014 15:30		
Svoboda, Miloslav	03/30/2014 21:30	03/31/2014 15:30		
Daylong, Eric	03/30/2014 21:30	03/31/2014 15:30		

Treatment Reports & Remarks



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Treatment Report

<u>Event #</u>	<u>Event Time</u>	<u>Event Description</u>	<u>Fluid Type</u>	<u>Rate</u> (bbl/min)	<u>Tubular Pressure</u> (psi)	<u>Annular Pressure</u> (psi)	<u>Stage Volume</u> (bbl)	<u>Total Volume</u> (bbl)
1	Mar 30,2014 21:30	Arrive On Location		--	--	--	--	0.00
2	Mar 30,2014 21:45	Tailgate Meeting		--	--	--	--	0.00
3	Mar 31,2014 05:30	Rig In		--	--	--	--	0.00
Remarks: Rigged in water hose, treating iron over to slide and backside iron.								
4	Mar 31,2014 06:40	Wait On Instructions		--	--	--	--	0.00
5	Mar 31,2014 07:15	Rig In		--	--	--	--	0.00
Remarks: Rig in standing iron and floor iron.								
6	Mar 31,2014 09:05	Safety Meeting		--	--	--	--	0.00
7	Mar 31,2014 09:25	Sign-off on Safety		--	--	--	--	0.00
8	Mar 31,2014 09:52	Pressure Test	Water	0.30	5,000.0	0.0	0.50	0.50
9	Mar 31,2014 09:56	Pump Preflush	Water	3.00	400.0	0.0	30.00	30.50
Remarks: Visweep pre - flush.								
10	Mar 31,2014 10:08	Pump	1-1-0 G	3.00	200.0	0.0	179.00	209.50
11	Mar 31,2014 11:08	Wash	Water	--	--	--	--	209.50
Remarks: wash lines to the pit.								
12	Mar 31,2014 11:08	Drop Plug		--	--	--	--	209.50
13	Mar 31,2014 11:10	Displace Fluid	Water	3.00	1,000.0	0.0	142.75	352.25
Remarks: First 10 bbls. of displacement was sugar water, Balance had KCL inhibitor in it that we added.								
14	Mar 31,2014 12:04	Bump Plug	Water	0.00	1,750.0	0.0	0.00	352.25
Remarks: Bumped plug right at calculated displacement of 142.75 bbls.								
15	Mar 31,2014 12:28	Pressure Test	Water	0.50	2,000.0	0.0	3.00	355.25
Remarks: pressure tested packer.								
16	Mar 31,2014 12:45	Reverse Circulate	Water	6.50	1,200.0	0.0	220.00	575.25
Remarks: Reverse circulated until we had clean water back.								
17	Mar 31,2014 13:33	Stop		--	--	--	--	575.25
18	Mar 31,2014 13:33	Wash	Water	2.00	--	--	20.00	575.25
19	Mar 31,2014 13:50	Rig Out		--	--	--	--	575.25
20	Mar 31,2014 15:05	Job Complete		--	--	--	--	575.25
21	Mar 31,2014 15:20	Pre-Departure Meeting		--	--	--	--	575.25
22	Mar 31,2014 15:30	Leave Location		--	--	--	--	575.25

Did Float Hold: Yes
 Fluid Returns : No
 Type :
 Volume (bbl) :
 Temperature (°F) : --
 FDAS Functioning Correctly : Yes
 Was the Program Followed As Per Design? : Yes

Material Transfer Sheet Number

Material Transfer Sheet Number
 37191
 37192



Comments To Service Report

Success, Job went good. Sanjel on location on time. Held tailgate meeting and then waited on rig to finish running casing and run in hole with drill pipe. We spotted trucks and rigged in water hose, treating iron over to slide and backside, then waited for rig to be ready, then when ready we rigged in standing iron and floor iron, held safety meeting, signed all jsa's and pressure tested to 5000 psi., pumped 30 bbls. visweep, 179 bbls. slurry and displaced 142.75 bbls. total, bumped the plug 500 over right on total displacement. tested the packer to 2000 psi. for 5 minits, reverse circulated 220 bbls. fresh water until we had clean returns. shut down, rigged off floor, washed up pump and rigged out. We did not get any cement to surface but got a slight amount of poly flake and all our visweep back. Job complete. All equipment functioned well. Crew worked good together.