



Pumping Service Report

9202397

| | | | | |
|--|---|-------------------------|---------------------------------|---|
| Client Name Whiting Petroleum Corp. | Well Name Razor 11F - 0205A | Rig Frontier 26 | Job Date February 22,2015 | Call Sheet 1055673 |
| Client Representative Mr. Kenny | Surface Well Location SE NW Sec 11:T10N:R58W | Down Hole Well Location | Job Type Intermediate Casing | Lead Supervisor Johnson, Quintin (23945) |

Well Profile

| | |
|--|----------|
| Well Type: | Oil |
| Maximum Treating Pressure (psi): | --- |
| Predicted Bottom Hole Static Temperature (°F): | --- @ -- |
| Bottom Hole Circulating Temperature (°F): | --- @ -- |
| 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> |
|------------------|-------------------|----------------------|--------------------|----------------------|--------------------|
| 8.750 | -- | 0.000 | 6,585.000 | -- | -- |

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) |
| 7.000 | 29.000 | P-110 | 8,510.0 | 9,520.0 | 243.88 | 6.184 | 7.656 | 0.0 | 6,565.0 |

Products

Stage 1

| | |
|------------------|------|
| From Depth (ft): | 0 |
| To Depth (ft): | 4507 |

Acids/Blends/Fluids :

Lead 1: 490 Sacks of 1:2:6 POZ G Gel, Density = 12.5 lb/gal, Volume Pumped = 164.9 (bbl)
Water Temperature(°F) = 45 , Bulk Temperature(°F) = 45 , Slurry Temperature(°F) = 45
+ 0.2 % of CFR (Preblend),
+ 0.5 % of CFL-4 (Preblend),
+ 0.15 % of LTR (Preblend),
+ 0.25 lb/sack of Polyflake (Preblend)

Stage 2

| | |
|------------------|------|
| From Depth (ft): | 6585 |
| To Depth (ft): | 4507 |

Acids/Blends/Fluids :

Tail: 210 Sacks of 1-1-0 G, Density = 13.5 lb/gal, Volume Pumped = 56.8 (bbl)
Water Temperature(°F) = 45 , Bulk Temperature(°F) = 45 , Slurry Temperature(°F) = 45
+ 8 % of SilFume (Preblend),
+ 2 % of Gel (Preblend),
+ 0.1 % of CFR-5 (Preblend),
+ 0.7 % of CFL-3 (Preblend),
+ 0.3 % of LTR (Preblend),
+ 0.25 lb/sack of Polyflake (Preblend)

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 | -- | 8.400 | -- | -- | Jul 14, 2014 20:27 |
| Water Based Mud | -- | -- | -- | -- | Oct 09, 2014 19:06 |



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Attachment & Tools

Tubular Plugs

| <u>Tubular Plug Type</u> | <u>Size (in)</u> | <u>Supplier</u> |
|--------------------------|------------------|-----------------|
| Rubber Top | 7.000 | 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> |
|-----------------------|------------------|-----------------|-------------------------|------------------|------------------|-------------------------|--------------------------|
| 201173 | PICKUP | 1 Ton | 449095 | TRAILER | Utility Trailer | 02/22/2015 06:30 | 02/22/2015 14:30 |
| 445024 | TRAILER | SCM Twin | 745024 | TRACTOR | Tandem - Tractor | 02/22/2015 06:30 | 02/22/2015 14:30 |

Crew and Bonuses

| <u>Employee</u> | <u>Start Shift</u> | <u>End Shift</u> | <u>Second Start Shift</u> | <u>Second End Shift</u> |
|--------------------------|--------------------|------------------|---------------------------|-------------------------|
| Johnson, Quintin (23945) | 02/22/2015 14:06 | 02/22/2015 14:30 | | |
| Lindsay, Kevin (27589) | 02/22/2015 14:06 | 02/22/2015 14:30 | | |
| Barden, Sean (27711) | | | | |
| Crane, Troy (29924) | 02/22/2015 14:06 | 02/22/2015 14:30 | | |
| Cox, Brandon (27419) | 02/22/2015 14:06 | 02/22/2015 14:30 | | |

Treatment Reports & Remarks

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 | Feb 22,2015 06:30 | Arrive On Location | | -- | -- | -- | -- | 0.00 |
| | | Remarks: arrived ahead of schedule | | | | | | |
| 2 | Feb 22,2015 06:40 | Tailgate Meeting | | -- | -- | -- | -- | 0.00 |
| | | Remarks: talked about spotting trucks | | | | | | |
| 3 | Feb 22,2015 06:50 | Crew Briefing (Rig in) | | -- | -- | -- | -- | 0.00 |
| | | Remarks: talked about job site hazards and how to mitigate them | | | | | | |
| 4 | Feb 22,2015 07:10 | Rig In | | -- | -- | -- | -- | 0.00 |
| | | Remarks: rigged in our trucks and water | | | | | | |
| 5 | Feb 22,2015 08:55 | Rig in Complete | | -- | -- | -- | -- | 0.00 |
| | | Remarks: gather up for jsa meeting | | | | | | |
| 6 | Feb 22,2015 09:00 | Crew Briefing (Pre Job) | | -- | -- | -- | -- | 0.00 |
| | | Remarks: talked about the job scope and safety concerns | | | | | | |
| 7 | Feb 22,2015 09:01 | Sign-off on Safety | | -- | -- | -- | -- | 0.00 |
| | | Remarks: Signed their and our JSA | | | | | | |
| 8 | Feb 22,2015 09:53 | Pressure Test Start | Water | 2.00 | 100.0 | -- | 2.00 | 2.00 |
| | | Remarks: filled lines for pressure test | | | | | | |
| 9 | Feb 22,2015 09:54 | Pressure Test | Water | 0.00 | 3,000.0 | -- | 0.00 | 2.00 |
| | | Remarks: pressured lines and the held | | | | | | |
| 10 | Feb 22,2015 09:56 | Pressure Test Complete | | -- | -- | -- | -- | 2.00 |
| | | Remarks: opened up to pump job | | | | | | |
| 11 | Feb 22,2015 09:59 | Pump Preflush | Water | 1.50 | 300.0 | -- | 20.00 | 22.00 |
| | | Remarks: pumped wg-11 | | | | | | |

Acidizing • Cementing • Coiled Tubing • Fracturing • Nitrogen

Canada • USA • International

Print Date:

March 20, 2015

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V4.1.0.0



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Treatment Report

| Event # | Event Time | Event Description | Fluid Type | Rate (bbl/min) | Tubular Pressure (psi) | Annular Pressure (psi) | Stage Volume (bbl) | Total Volume (bbl) |
|---------|-------------------|---|--------------------|-------------------|---------------------------|---------------------------|-----------------------|-----------------------|
| 12 | Feb 22,2015 10:21 | Pump Spacer | Water | 3.00 | 400.0 | -- | 10.00 | 32.00 |
| | | Remarks: pump fresh between preflush and slurry | | | | | | |
| 13 | Feb 22,2015 10:25 | Mix Cement | 1:2:6 POZ G Gel | 5.50 | 600.0 | -- | 164.90 | 196.90 |
| | | Remarks: mixed lead slurry at 12.5 | | | | | | |
| 14 | Feb 22,2015 10:57 | Mix Cement | 1-1-0 G | 5.50 | 280.0 | 0.0 | 56.90 | 253.80 |
| | | Remarks: mixed tail slurry at 13.5 density | | | | | | |
| 15 | Feb 22,2015 11:05 | Drop Plug | | -- | -- | -- | -- | 253.80 |
| | | Remarks: drop their plug | | | | | | |
| 16 | Feb 22,2015 11:15 | Pump Displacement | Water Based Mud | 4.00 | 1,100.0 | -- | 256.00 | 509.80 |
| | | Remarks: pumped mud till plug bumps | | | | | | |
| 17 | Feb 22,2015 13:24 | Bump Plug | | 2.00 | 2,100.0 | -- | 256.00 | 765.80 |
| | | Remarks: bump plug 80 over | | | | | | |
| 18 | Feb 22,2015 13:26 | Check Float | Water Based Mud | -- | 2,100.0 | -- | -- | 765.80 |
| | | Remarks: bled off and got 1.5 bbls back | | | | | | |
| 19 | Feb 22,2015 13:25 | Pressure Test | Water Based Mud | 1.00 | 1,500.0 | -- | 2.00 | 767.80 |
| | | Remarks: held for 10 minutes | | | | | | |
| 20 | Feb 22,2015 13:40 | Stop | | -- | -- | -- | -- | 767.80 |
| | | Remarks: stop rigged off and blew lines back to rig | | | | | | |
| 21 | Feb 22,2015 13:50 | Wash | Water | 2.00 | 150.0 | -- | 20.00 | 787.80 |
| | | Remarks: wash mix side and did run backs | | | | | | |
| 22 | Feb 22,2015 13:55 | Rig Out | | -- | -- | -- | -- | 787.80 |
| | | Remarks: rig out our iron and water hoses | | | | | | |
| 23 | Feb 22,2015 14:20 | Job Complete | | -- | -- | -- | -- | 787.80 |
| | | Remarks: do a complete walk around and check pins | | | | | | |
| 24 | Feb 22,2015 14:30 | Leave Location | | -- | -- | -- | -- | 787.80 |
| | | Remarks: go back to Sanjel yard | | | | | | |

Did Float Hold: Yes

Fluid Returns : Yes

Type : Cement

Volume (bbl) : 58

Temperature (°F) : 46

FDAS Functioning Correctly : Yes

Was the Program Followed As Per Design? : Yes

Material Transfer Sheet Number

Material Transfer Sheet Number

55404

55778

55780