



Pumping Service Report

9206527

| | | | | |
|--|--|------------------------------|---------------------------|--|
| Client Name Whiting Petroleum Corp. | Well Name Razor Federal 12F-1308B | Rig Unit Drilling Co. 409 | Job Date July 17, 2015 | Call Sheet 1059230 |
| Client Representative Kenney | Surface Well Location SE NW Sec 12:T1N:R58W | Down Hole Well Location | Job Type Liner Casing | Lead Supervisor Hansen, Kevin (27592) |

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 | 6,341.000 | 13,836.000 | -- | -- |

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 | P-110 | 8,510.0 | 9,520.0 | 235.56 | 6.184 | 7.656 | 0.0 | 6,341.0 |
| 4.500 | 11.600 | P-110 | 7,560.0 | 10,690.0 | 133.15 | 4.000 | 5.000 | 5,259.0 | 13,826.0 |

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 | 29.000 | --- | -- | -- | -- | -- | 0.000 | 4,495.000 |
| 4.875 | 49.000 | --- | -- | -- | -- | -- | 4,495.000 | 5,236.000 |
| 3.500 | 20.000 | --- | -- | -- | -- | -- | 5,236.000 | 5,286.000 |

Products

Stage 1

From Depth (ft): 6341

To Depth (ft): 13826

Acids/Blends/Fluids :

Tail: 580 Sacks of 1-1-0 G, Density = 13.7 lb/gal, Volume Pumped = 153 (bbl)

Water Temperature(°F) = 75 , Bulk Temperature(°F) = 75 , Slurry Temperature(°F) = 85

+ 8 % of SilFume (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),

+ 0.25 lb/sack of Polyflake (Preblend)

Fluid & Cement Data

Expected Cement Top: Depth (ft): 5259

Wellbore Fluid

| Fluid Type | Viscosity (cP) | Density (lbs/gal) | Yield Point (psi) | Temperature (°F) | Recorded@ |
|-----------------|----------------|-------------------|-------------------|------------------|--------------------|
| Water | -- | 8.340 | -- | -- | Jul 07, 2015 14:19 |
| Water Based Mud | -- | 10.000 | -- | -- | Jul 11, 2015 17:09 |

Attachment & Tools

Down Hole Tools

| <u>Tool Type</u> | <u>Depth (ft)</u> | <u>Supplier</u> |
|------------------|-------------------|-----------------|
| Guide Shoe | 13,826.000 | Third Party |
| Liner Hanger | 5,259.000 | 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> |
|-----------------------|------------------|-----------------|-------------------------|------------------|------------------|-------------------------|--------------------------|
| 201025 | PICKUP | 1 Ton | 445087 | TRAILER | SCM Twin | 07/17/2015 19:00 | 07/18/2015 06:30 |
| 445070 | TRAILER | SCM Twin | 745070 | TRACTOR | Tandem - Tractor | 07/17/2015 19:00 | 07/18/2015 06:30 |

Crew and Bonuses

| <u>Employee</u> | <u>Start Shift</u> | <u>End Shift</u> | <u>Second Start Shift</u> | <u>Second End Shift</u> |
|----------------------------|--------------------|------------------|---------------------------|-------------------------|
| Hansen, Kevin (27592) | 07/17/2015 19:00 | 07/18/2015 06:30 | | |
| Martinez, Fernando (28421) | 07/17/2015 19:00 | 07/18/2015 06:30 | | |
| Meisner, Jeremy (27681) | 07/17/2015 19:00 | 07/18/2015 06:30 | | |
| Orist, Mark (28876) | 07/17/2015 19:00 | 07/18/2015 06:30 | | |

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 | Jul 17,2015 19:00 | Arrive On Location | | -- | -- | -- | -- | 0.00 |
| 2 | Jul 17,2015 19:10 | Crew Briefing (Rig in) | | -- | -- | -- | -- | 0.00 |
| | | Remarks: Discussed spotting trucks and filled out JSA | | | | | | |
| 3 | Jul 18,2015 01:30 | Rig in Complete | | -- | -- | -- | -- | 0.00 |
| 4 | Jul 18,2015 01:45 | Crew Briefing (Pre Job) | | -- | -- | -- | -- | 0.00 |
| | | Remarks: Discussed job and safety concerns with rig crew and signed JSA | | | | | | |
| 5 | Jul 18,2015 02:25 | Pressure Test Start | | 2.00 | 700.0 | -- | 3.00 | 3.00 |
| | | Remarks: Filled lines for pressure test | | | | | | |
| 6 | Jul 18,2015 02:29 | Pressure Test Complete | | -- | 5,000.0 | -- | -- | 3.00 |
| | | Remarks: Pressure test good | | | | | | |
| 7 | Jul 18,2015 02:30 | Pump Preflush | Water | 4.00 | 1,000.0 | -- | 30.00 | 33.00 |
| | | Remarks: Pumped Visweep | | | | | | |
| 8 | Jul 18,2015 02:45 | Mix Cement | 1-1-0 G | 5.50 | 2,200.0 | -- | 153.00 | 186.00 |
| | | Remarks: Pumped @ D-13.7, Y-1.48, WR-6.74 | | | | | | |
| 9 | Jul 18,2015 03:00 | Mix Cement | | -- | -- | -- | -- | 186.00 |
| | | Remarks: Weigh slurry to verify density | | | | | | |
| 10 | Jul 18,2015 03:22 | Pump Out Lines | Water | 1.50 | 0.0 | -- | 5.00 | 191.00 |
| 11 | Jul 18,2015 03:26 | Drop Plug | | -- | -- | -- | -- | 191.00 |
| 12 | Jul 18,2015 03:27 | Displace Fluid | Water | 5.00 | 1,900.0 | -- | 164.50 | 355.50 |
| | | Remarks: Displaced with customer supplied KCL Water | | | | | | |
| 13 | Jul 18,2015 04:04 | Bump Plug | | -- | 2,500.0 | -- | -- | 355.50 |
| | | Remarks: Bumped 500 over | | | | | | |
| 14 | Jul 18,2015 04:10 | Check Float | | -- | -- | -- | -- | 355.50 |
| | | Remarks: Floats held 1 bbl back | | | | | | |
| 15 | Jul 18,2015 04:15 | Pump | Water | 7.00 | 2,200.0 | -- | 130.00 | 485.50 |
| | | Remarks: Rolled hole with customer supplied KCL water | | | | | | |
| 16 | Jul 18,2015 04:37 | Pressure Test | | -- | 2,000.0 | -- | -- | 485.50 |
| | | Remarks: Pressure test backside for 5 minutes | | | | | | |
| 17 | Jul 18,2015 04:40 | Job Complete | | -- | -- | -- | -- | 485.50 |
| 18 | Jul 18,2015 04:45 | Wash | | -- | -- | -- | -- | 485.50 |
| 19 | Jul 18,2015 05:20 | Rig Out | | -- | -- | -- | -- | 485.50 |
| 20 | Jul 18,2015 05:48 | Pre-Departure Meeting | | -- | -- | -- | -- | 485.50 |
| | | Remarks: Discussed journey management | | | | | | |
| 21 | Jul 18,2015 06:30 | Leave Location | | -- | -- | -- | -- | 485.50 |

Did Float Hold: Yes
 Fluid Returns : Yes
 Type : Cement
 Volume (bbl) : 20
 Temperature (°F) : 84
 FDAS Functioning Correctly : Yes
 Was the Program Followed As Per Design? : Yes

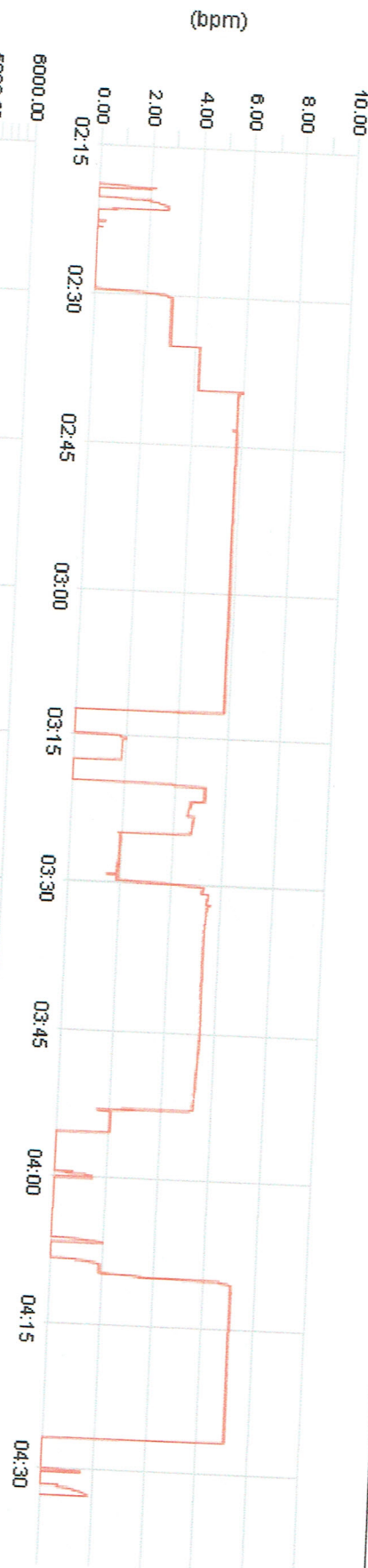


| Treatment Reports & Remarks | |
|---------------------------------------|--|
| Material Transfer Sheet Number | |
| <u>Material Transfer Sheet Number</u> | |
| 65210 | |
| 65209 | |

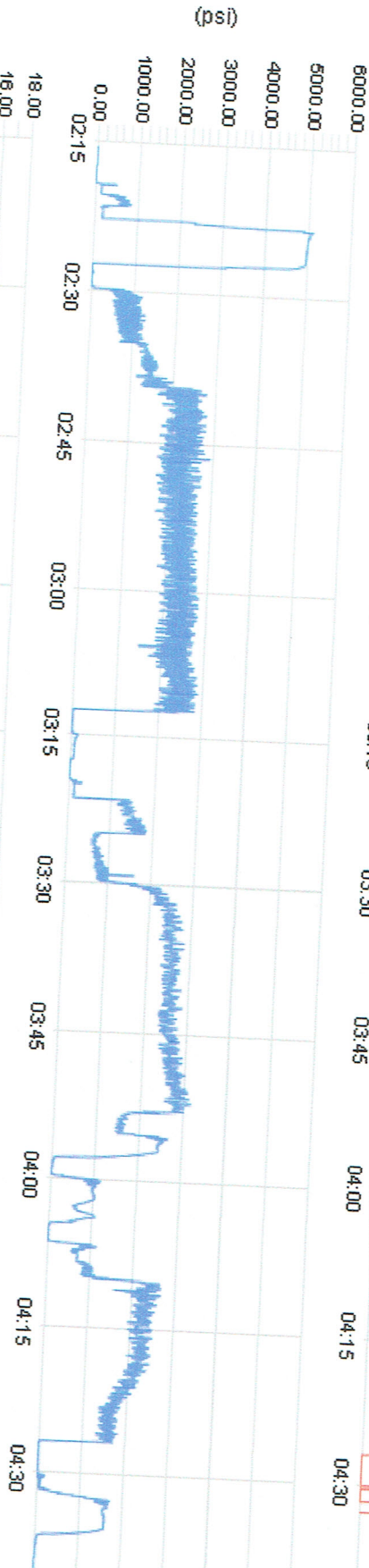


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|------------|---|------------|-------------------------|------------------|--------------|
| Client | Whiting Petroleum Corp | Client Rep | Kenny | Supervisor | Kevin Hansen |
| Ticket No. | 9206527 | Well Name | Razor Federal 12F-1308B | Unit No. | 745070 |
| Location | SE NW Sec12:T1N:R58W | Job Type | Liner Casing | Service District | Ft Lupton |
| Comments | 580 sacks 1-1-0 "G" @ D-13.7, Y-1.48, WR-6.74 | | | Job Date | 07/18/2015 |

Unit 745070 Rate Total



Unit 745070 Pump Pressure



Unit 745070 Density

