



# Cementing Service Report

9206637

|  |   |                              |                                |   |
|--|---|------------------------------|--------------------------------|---|
| Client Name<br>Whiting Petroleum Corp. | Well Name<br>Razor Federal 12F-1302B            | Rig<br>Unit Drilling Co. 409 | Job Date<br>September 24, 2015 | Call Sheet<br>1061008                       |
| Client Representative<br>Kenny         | Surface Well Location<br>SE NE Sec 12:T10N:R58W | Down Hole Well Location      | Job Type<br>Surface Casing     | Lead Supervisor<br>Johnson, Quintin (23945) |

## 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    | --         | 0.000         | 1,890.000   | --            | --          |

## 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  | ---   | --                | --                      | --       | --   | --   | 0.0        | 1,873.0  |

## Products

### Stage 1

|                  |      |
|------------------|------|
| From Depth (ft): | 0    |
| To Depth (ft):   | 1350 |

Acids/Blends/Fluids :

Lead 1: 355 Sacks of Control Set C, Density = 12 lb/gal, Volume Pumped = 155.5 (bbl)  
Water Temperature(°F) = 65 , Bulk Temperature(°F) = 65 , Slurry Temperature(°F) = 70  
+ 0.25 lb/sack of LCL-7 (Preblend)

### Stage 2

|                  |      |
|------------------|------|
| From Depth (ft): | 1350 |
| To Depth (ft):   | 1890 |

Acids/Blends/Fluids :

Tail: 240 Sacks of 0:1:0 Type III, Density = 14.2 lb/gal, Volume Pumped = 62.4 (bbl)  
Water Temperature(°F) = 65 , Bulk Temperature(°F) = 65 , Slurry Temperature(°F) = 70  
+ 2 % of CaCl<sub>2</sub> (Preblend),  
+ 0.25 lb/sack of LCL-7 (Preblend)

### Stage 3

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

Acids/Blends/Fluids :

## Fluid & Cement Data

Expected Cement Top: Surface

### 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 | --             | --                | --                | --               | Aug 24, 2015 15:49 |

**Attachment & Tools****Down Hole Tools**

| <u>Tool Type</u> | <u>Depth (ft)</u> | <u>Supplier</u> |
|------------------|-------------------|-----------------|
| Guide/Float Shoe | 1,873.000         | Third Party     |
| Float Collar     | 1,840.000         | Third Party     |

**Tubular Plugs**

| <u>Tubular Plug Type</u> | <u>Size (in)</u> | <u>Supplier</u> |
|--------------------------|------------------|-----------------|
| Rubber Top               | 9.625            | Sanjel          |

**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> |
|-----------------------|------------------|-----------------|-------------------------|------------------|------------------|-------------------------|--------------------------|
| 200925                | PICKUP           | 1 Ton           | 449095                  | TRAILER          | Utility Trailer  | 09/24/2015 21:30        | 09/25/2015 01:30         |
| 445024                | TRAILER          | SCM Twin        | 745024                  | TRACTOR          | Tandem - Tractor | 09/24/2015 21:30        | 09/25/2015 01:30         |
| 446153                | TRAILER          | Bulker          | 746153                  | TRACTOR          | Tandem - Tractor | 09/24/2015 21:30        | 09/25/2015 01:30         |

**Crew and Bonuses**

| <u>Employee</u>            | <u>Start Shift</u> | <u>End Shift</u> | <u>Second Start Shift</u> | <u>Second End Shift</u> |
|----------------------------|--------------------|------------------|---------------------------|-------------------------|
| Doran, Benjamin (27933)    | 09/24/2015 21:30   | 09/25/2015 01:30 |                           |                         |
| Schroeder, Stephen (25442) | 09/24/2015 21:30   | 09/25/2015 01:30 |                           |                         |
| Leue, David (28684)        | 09/24/2015 21:30   | 09/25/2015 01:30 |                           |                         |
| Vitera, John (29843)       | 09/24/2015 21:30   | 09/25/2015 01:30 |                           |                         |
| Wilson, Johnny (30052)     | 09/24/2015 21:30   | 09/25/2015 01:30 |                           |                         |



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| Treatment Reports & Remarks                   |                   |  |                    |                   |                           |                           |                       |                       |  |
|---|-------------------|--|--------------------|-------------------|---------------------------|---------------------------|-----------------------|-----------------------|--|
| Treatment Report                              |                   |  |                    |                   |                           |                           |                       |                       |  |
| Event #                                       | Event Time        | Event Description                      | Fluid Type         | Rate<br>(bbl/min) | Tubular Pressure<br>(psi) | Annular Pressure<br>(psi) | Stage Volume<br>(bbl) | Total Volume<br>(bbl) |  |
| 1   | Sep 24,2015 21:30 | Arrive On Location                     |                    | --                | --                        | --                        | --                    | 0.00                  |  |
| 2   | Sep 24,2015 21:35 | Crew Briefing (Rig in)                 |                    | --                | --                        | --                        | --                    | 0.00                  |  |
| 3   | Sep 24,2015 22:45 | Rig in Complete                        |                    | --                | --                        | --                        | --                    | 0.00                  |  |
| 4   | Sep 24,2015 22:55 | Crew Briefing (Pre Job)                |                    | --                | --                        | --                        | --                    | 0.00                  |  |
| 5   | Sep 24,2015 23:08 | Pressure Test Start                    | Water              | 2.00              | 100.0                     | --                        | 2.00                  | 0.00                  |  |
|   |                   | Remarks: Fill lines                    |                    |                   |                           |                           |                       |                       |  |
| 6   | Sep 24,2015 23:10 | Pressure Test Complete                 |                    | --                | 2,500.0                   | --                        | --                    | 0.00                  |  |
|   |                   | Remarks: All lines held pressure       |                    |                   |                           |                           |                       |                       |  |
| 7   | Sep 24,2015 23:11 | Pump Spacer                            | Water              | 6.60              | 200.0                     | --                        | 20.00                 | 0.00                  |  |
| 8   | Sep 24,2015 23:17 | Mix Cement                             | Control Set<br>C   | 8.30              | 400.0                     | --                        | 155.50                | 0.00                  |  |
|   |                   | Remarks: Mix/Pump 355 Sacks @ 12 PPG   |                    |                   |                           |                           |                       |                       |  |
| 9   | Sep 24,2015 23:35 | Mix Cement                             | 0:1:0 Type<br>III  | 8.00              | 400.0                     | --                        | 62.40                 | 0.00                  |  |
|   |                   | Remarks: Mix/Pump 240 Sacks @ 14.2 PPG |                    |                   |                           |                           |                       |                       |  |
| 10  | Sep 24,2015 23:48 | Drop Plug                              |                    | --                | --                        | --                        | --                    | 0.00                  |  |
| 11  | Sep 24,2015 23:51 | Displace Fluid                         | Water<br>Based Mud | 8.00              | 500.0                     | --                        | 142.20                | 0.00                  |  |
| 12  | Sep 25,2015 00:23 | Bump Plug                              |                    | --                | 1,170.0                   | --                        | --                    | 0.00                  |  |
| 13  | Sep 25,2015 00:25 | Check Float                            |                    | --                | --                        | --                        | --                    | 0.00                  |  |
|   |                   | Remarks: .75 BBL back                  |                    |                   |                           |                           |                       |                       |  |
| 14  | Sep 25,2015 00:35 | Rig Out                                |                    | --                | --                        | --                        | --                    | 0.00                  |  |
| 15  | Sep 25,2015 01:20 | Job Complete                           |                    | --                | --                        | --                        | --                    | 0.00                  |  |
| 16  | Sep 25,2015 01:30 | Leave Location                         |                    | --                | --                        | --                        | --                    | 0.00                  |  |
| Did Float Hold: Yes                           |                   |  |                    |                   |                           |                           |                       |                       |  |
| Fluid Returns : Yes                           |                   |  |                    |                   |                           |                           |                       |                       |  |
| Type : Cement                                 |                   |  |                    |                   |                           |                           |                       |                       |  |
| Volume (bbl) : 82                             |                   |  |                    |                   |                           |                           |                       |                       |  |
| Temperature (°F) : 70                         |                   |  |                    |                   |                           |                           |                       |                       |  |
| FDAS Functioning Correctly : Yes              |                   |  |                    |                   |                           |                           |                       |                       |  |
| Was the Program Followed As Per Design? : Yes |                   |  |                    |                   |                           |                           |                       |                       |  |
| Material Transfer Sheet Number                |                   |  |                    |                   |                           |                           |                       |                       |  |
| Material Transfer Sheet Number                |                   |  |                    |                   |                           |                           |                       |                       |  |
| 65758   |                   |  |                    |                   |                           |                           |                       |                       |  |
| 65760   |                   |  |                    |                   |                           |                           |                       |                       |  |

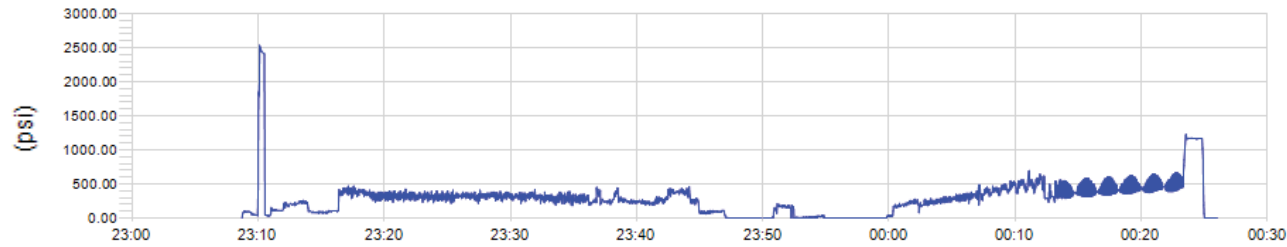


|            |                        |            |                         |                  |            |
|------------|------------------------|------------|-------------------------|------------------|------------|
| Client     | Whiting                | Client Rep | Mr. Tyson               | Supervisor       | Ben Doran  |
| Ticket No. | 9206637                | Well Name  | Razor Federal 12F-1302B | Unit No.         | 745024     |
| Location   | SE NE Sec12:T10N:R58W  | Job Type   | Surface Casing          | Service District | 505        |
| Comments   | Pump Job As per design |            |                         | Job Date         | 09/24/2015 |

Unit 745024 Rate Total



Unit 745024 Pump Pressure



Unit 745024 Density

