



**Pumping
Service Report**

9182837

| | | | |
|--|-----------------------------|--------------------------------|-----------------------|
| Client Name Black Diamond Minerals, LLC | Well Name TRP #112-16 | Job Date September 19, 2013 | Call Sheet 1029509 |
| Client Representative Mr Jamey Brumley | Location Sec 25:T7S:R94W | Job Type Surface Casing | Rig |

| Well Profile | | | | | | | | | | |
|--|---------|------------|-------------------|-------------------------|----|-------------|-------|---------------|------------|-------------|
| Well Type: | | Gas (Wet) | | | | | | | | |
| Maximum Treating Pressure (psi): | | --- | | | | | | | | |
| Predicted Bottom Hole Static Temperature (°F): | | --- | | @ | -- | | | | | |
| Bottom Hole Circulating Temperature (°F): | | --- | | @ | -- | | | | | |
| Bottom Hole Logged Temperature (°F): | | --- | | @ | -- | | | | | |
| Open Hole | | | | | | | | | | |
| Size (in) | | Excess (%) | | TMD From (ft) | | TMD To (ft) | | TVD From (ft) | | TVD To (ft) |
| 14.750 | | 50.000 | | 0.000 | | 2,300.000 | | 0.000 | | 2,300.000 |
| 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 | J-55 | 2,020.0 | 3,520.0 | | 175.57 | 8.921 | 10.625 | 0.0 | 2,271.0 |

| Products | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| Stage 1 | | | | | | | | | |
| From Depth (ft): | | | | | | | | | |
| To Depth (ft): | | | | | | | | | |
| Acids/Blends/Fluids : | | | | | | | | | |
| Lead 1: 720 Sacks of Control Set C, Density = 11.5 lb/gal, Volume Pumped = 364.5 (bbl) | | | | | | | | | |
| Water Temperature(°F) = 60 , Bulk Temperature(°F) = 60 , Slurry Temperature(°F) = 60 | | | | | | | | | |
| + 1 % of CaCl ₂ , | | | | | | | | | |
| + 1 % of Gypsum, | | | | | | | | | |
| + 1 % of SMS, | | | | | | | | | |
| + 0.25 lb/sack of Polyflake | | | | | | | | | |
| Tail: 365 Sacks of 0:1:0 Type III, Density = 14.2 lb/gal, Volume Pumped = 94.9 (bbl) | | | | | | | | | |
| Water Temperature(°F) = 60 , Bulk Temperature(°F) = 60 , Slurry Temperature(°F) = 60 | | | | | | | | | |
| + 1 % of CaCl ₂ , | | | | | | | | | |
| + 0.25 lb/sack of Polyflake | | | | | | | | | |

| Fluid & Cement Data | | | | | |
|----------------------|----------------|-------------------|-------------------|------------------|--------------------|
| Expected Cement Top: | | -- | | | |
| Wellbore Fluid | | | | | |
| Fluid Type | Viscosity (cP) | Density (lbs/gal) | Yield Point (psi) | Temperature (°F) | Recorded@ |
| Water | -- | 8.340 | -- | -- | Sep 11, 2013 14:44 |



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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 |
|----------------|-----------|-----------------|------------------|-----------|---------------------|------------------|-------------------|
| 449039 | TRAILER | Utility Trailer | 200866 | PICKUP | 3/4 Ton | 09/19/2013 12:30 | 09/20/2013 00:12 |
| 445020 | TRAILER | Twin Pumper | 745020 | TRACTOR | Tandem - Tractor | 09/19/2013 12:30 | 09/20/2013 00:12 |
| 446084 | TRAILER | Bulker | 746084 | TRACTOR | Tandem - Tractor | 09/19/2013 12:30 | 09/20/2013 00:12 |
| 446153 | TRAILER | Bulker | 746153 | TRACTOR | Tandem - Tractor | 09/19/2013 12:30 | 09/20/2013 00:12 |
| 446152 | TRAILER | Booster | 746152 | TRACTOR | Tandem - Tractor | 09/19/2013 12:30 | 09/20/2013 00:12 |

Crew and Bonuses

| Employee | Start Shift | End Shift | Second Start Shift | Second End Shift |
|--------------------|------------------|------------------|--------------------|------------------|
| Cooper, Jeremy | 09/19/2013 12:30 | 09/20/2013 00:12 | | |
| Laeger, Kacey | 09/19/2013 12:30 | 09/20/2013 00:12 | | |
| Gordon, Jeffrey | 09/19/2013 12:30 | 09/20/2013 00:12 | | |
| Dewitt Jr, Jerry | 09/19/2013 12:30 | 09/20/2013 00:12 | | |
| Durham, Adrian | 09/19/2013 12:30 | 09/20/2013 00:12 | | |
| Sanchez Jr, Carlos | 09/19/2013 12:30 | 09/20/2013 00:12 | | |

Treatment Reports & Remarks



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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) |
|---|-------------------|-----------------------|-------------------|-------------------|---------------------------|---------------------------|-----------------------|-----------------------|
| 1 | Sep 19,2013 12:30 | Arrive On Location | | -- | -- | -- | -- | 0.00 |
| 2 | Sep 19,2013 13:00 | Tailgate Meeting | | -- | -- | -- | -- | 0.00 |
| 3 | Sep 19,2013 16:30 | Rig In | | -- | -- | -- | -- | 0.00 |
| 4 | Sep 19,2013 17:45 | Safety Meeting | | -- | -- | -- | -- | 0.00 |
| 5 | Sep 19,2013 18:00 | Sign-off on Safety | | -- | -- | -- | -- | 0.00 |
| 6 | Sep 19,2013 18:05 | Pressure Test | Water | -- | -- | -- | -- | 0.00 |
| 7 | Sep 19,2013 18:10 | Forward Circulate | Water | 4.00 | 250.0 | -- | 10.00 | 10.00 |
| 8 | Sep 19,2013 18:20 | Mix Cement | Control Set C | 6.00 | 250.0 | -- | 364.00 | 374.00 |
| Remarks: HAD CEMENT DELIVERY HOSE PLUG UP SHUT DOWN AT 19:00 RESUMED AT 19:05 11.5 PPG BY MUD SCALE | | | | | | | | |
| 9 | Sep 19,2013 20:05 | Mix Cement | 0:1:0 Type III | 4.00 | 200.0 | -- | 75.00 | 449.00 |
| Remarks: 14.2 PPG BY MUD SCALE CEMENT RETURNED 25 BBLS EARLY BY CALCULATIONS. | | | | | | | | |
| 10 | Sep 19,2013 21:00 | Stop | | -- | -- | -- | -- | 449.00 |
| Remarks: SHUT DOWN WITH 20 BBLS OF TAIL LEFT. RETURNS PLUGED UP CELAR PUMP AND HOSES. CHANGED HOSES | | | | | | | | |
| 11 | Sep 19,2013 21:15 | Drop Plug | Water | -- | -- | -- | -- | 449.00 |
| 12 | Sep 19,2013 21:15 | Displace Fluid | Water | 2.00 | 300.0 | -- | 14.00 | 463.00 |
| Remarks: PUMPED 2 BBL/MIN FOR CELAR PUMP TO KEEP UP | | | | | | | | |
| 13 | Sep 19,2013 21:20 | Displace Fluid | Water | -- | 3,000.0 | -- | 12.50 | 475.50 |
| Remarks: pumped off/on at the rate the celar pump could keep up un till reaching max pressure | | | | | | | | |
| 14 | Sep 19,2013 22:50 | Pump | Water | 0.75 | 1,600.0 | -- | 5.00 | 480.50 |
| Remarks: PUMPED 5 BBLS SUGAR WATER DOWN PARISITE LINE | | | | | | | | |
| 15 | Sep 19,2013 23:30 | Wash | | -- | -- | -- | -- | 0.00 |
| 16 | Sep 20,2013 12:30 | Job Complete | | -- | -- | -- | -- | 480.50 |
| 17 | Sep 20,2013 13:00 | Pre-Departure Meeting | | -- | -- | -- | -- | 480.50 |
| 18 | Sep 20,2013 13:00 | Leave Location | | -- | -- | -- | -- | 480.50 |

Did Float Hold: Yes
Fluid Returns : Yes
Type : Cement
Volume (bbl) : 30
Temperature (°F) : 90
FDAS Functioning Correctly : Yes
Was the Program Followed As Per Design? : Yes

Material Transfer Sheet Number

Material Transfer Sheet Number
37214
22367
22368

Comments To Service Report

CEMENT CAME TO SURFACE 25 BBLS EARLY BY CALCULATIONS. CEMENT WAS THICK AT RETURNS, CELAR PUMP HAD PROBLEMS PUMPING CEMENT TO PIT.