Bison Oil Well Cementing
1547 Gaylord Street
Denver, CO 80206

FIELD INVOICE #
35057

# FIELD INVOICE

| WELL NO. AND FARM | COUNTY | STATE | DATE | Contractor |
|---|---|---|---|---|
| grant elmquist 2a-14h-c268 | Weld | Colorado | 10/18/2014 | ensign 135 |

CHARGE TO
EnCana Oil & Gas (USA) Inc.
EnCana Oil & Gas (USA) Inc.
370 17th Street, Suite 1700
Denver, CO. 80202

| WELL LOCATION Section | TWP | RANGE |
|---|---|---|
| 14 | 2n | 68w |

| DELIVERED TO | LOCATION 1 | CODE |
|---|---|---|
| 22-11 | shop | |
| **SHIPPED VIA** | **LOCATION 2** | **CODE** |
| 4030-3103/4020 3211 | 22-11 | |
| **TYPE AND PURPOSE OF JOB** | **LOCATION 3** | **CODE** |
| SURFACE | shop | |
| | **WELL TYPE** | **CODE** |
| | gas | |

| ITEM | DESCRIPTION | UNITS QTY. | UNITS MEAS. | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| PUMP CHARGE | | | | | $ - |
| SURFACE | | 1 | | | |
| MILLEAGE CHARGE | | | | | |
| Pickup | | 60 | | | |
| Truck/Equipment | | 120 | | | |
| CEMENT CHARGE: | | | | | |
| BFN III | | 375 | sack | | |
| ADDITIVES CHARGE: | | | | | |
| Dye Blue | | 16 | oz | | |
| KCL | | 3 | qts | | |
| Sugar | | 300 | lbs | | |
| FLOAT EQUIPMENT: | | | | | |
| OTHER CHARGES: | | | | | |
| DATA ACQUISITION FEE | | 1 | ea | | $ |
| PSI Test | | 1 | ea | | $ |

| Encana Oil & Gas (USA) Inc | |
|---|---|
| DJ Basin | Date: 10/18/2014 |
| Well: | Grant Elmquist 2B-14H-C268 |
| AFE: | 13175944 |
| Major / Minor CC: | 875.618 |
| Total Amount: | |
| Signature: | |
| Approver: | R.C.K. |

| | |
|---|---|
| SUB TOTAL | $ |
| TAX 2.90% | $ |
| TOTAL | $ |

If this account is not paid within 30 days of invoice date a FINANCE CHARGE will be made. Computed at a single monthly rate of 1 1/2% which is equal to an ANNUAL PERCENTAGE RATE OF 18%.

SUBJECT TO CORRECTION

Customer or Agent

Bison Oil Well Cementing, Inc. Representative

Customers hereby acknowledges and specifically agrees to the terms and conditions on this work order, including, without limitation, the provisions on the riverside hereof which include the release and indemnity.

# Bison Oil Well Cementing
# Single Cement Surface Pipe

Date: 10/18/2014
Invoice # 35057
API#
Foreman: Kirk Kallhoff

**Customer:** EnCana Oil & Gas (USA) Inc.
**Well Name:** grant elmquist 2a-14h-c268

County: Weld
State: Colorado

Sec: 14
Twp: 2n
Range: 68w

Consultant: dennis
Rig Name & Number: ensign 135
Distance To Location: 22
Units On Location: 4030-3103/4020 3211
Time Requested: 700 pm
Time Arrived On Location: 615 pm
Time Left Location: 10:15pm

## WELL DATA

| | |
|---|---|
| Casing Size OD (in) : | 9.625 |
| Casing Weight (lb) : | 40.00 |
| Casing Depth (ft.) : | 836 |
| Total Depth (ft) : | 864 |
| Open Hole Diameter (in.) : | 12.25 |
| Conductor Length (ft) : | 100 |
| Conductor ID : | 16 |
| Shoe Joint Length (ft) : | 44 |
| Landing Joint (ft) : | 18 |
| Max Rate: | |
| Max Pressure: | |

## Cement Data

| | |
|---|---|
| Cement Name: | BFN III |
| Cement Density (lb/gal) : | 15.2 |
| Cement Yield (cuft) : | 1.27 |
| Gallons Per Sack: | 5.89 |
| % Excess: | 60% |
| Displacement Fluid lb/gal: | 8.3 |
| BBL to Pit: | |
| Fluid Ahead (bbls): | 30.0 |
| H20 Wash Up (bbls): | 20.0 |

Spacer Ahead Makeup

Casing ID 8.835 Casing Grade J-55 only used

## Calculated Results

**cuft of Shoe** 18.73 cuft
(Casing ID Squared) X ( .005454) X (Shoe Joint ft)

**cuft of Conductor** 89.10 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 368.80 cuft
(Open Hole Squared)-(Casing Size Squared) X ( .005454) X (Casing Depth - Conductor Length )

**Total Slurry Volume** 476.63 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 84.89 bbls
(Total Slurry Volume) X (.1781)

**Sacks Needed** 375 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 52.63 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 61.42 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

Hydrostatic Pressure: 660.11 PSI

## Pressure of the fluids inside casing

| | |
|---|---|
| Displacement: | 341.50 psi |
| Shoe Joint: | 34.74 psi |
| Total | 376.24 psi |
| Differential Pressure: | 283.87 psi |
| Collapse PSI: | 2570.00 psi |
| Burst PSI: | 3950.00 psi |
| Total Water Needed: | 164.05 bbls |

Authorization To Proceed

Customers hereby acknowledges and specifically agrees to the terms and condition on this work order, including, without limitation, the provisions on this work order.

**Bison Oil Well Cementing**
**Single Cement Surface Pipe**

| | |
|---|---|
| INVOICE # | 35057 |
| LOCATION | Weld |
| FOREMAN | Kirk Kallhoff |
| Date | 10/18/2014 |

| | |
|---|---|
| Customer | EnCana Oil & Gas (USA) Inc. |
| Well Name | grant elmquist 2a-14h-c268 |

**Treatment Report Page 2**

## DESCRIPTION OF JOB EVENTS

| | |
|---|---|
| Safety Meeting | 816pm |
| MIRU | 735pm |
| CIRCULATE | 841pm |
| Drop Plug | |
| 909 pm | |
| | |
| | |
| M & P | |

| Time | Sacks |
|---|---|
| 848 pm | 375 |
| 907 pm stop | |
| | |
| | |
| | |

| | |
|---|---|
| % Excess | |
| Mixed bbls | 52.6 |
| Total Sacks | |
| bbl Returns | 24 |
| Water Temp | |

| Displace 1 | | | Displace 2 | | | Displace 3 | | | Displace 4 | | | Displace 5 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BBLS | Time | PSI | BBLS | Time | PSI | BBLS | Time | PSI | BBLS | Time | PSI | BBLS | Time | PSI |
| 0 | 909pm | 10 | 0 | | | 0 | | | 0 | | | 0 | | |
| 10 | 912pm | 70 | 10 | | | 10 | | | 10 | | | 10 | | |
| 20 | 914pm | 180 | 20 | | | 20 | | | 20 | | | 20 | | |
| 30 | 916pm | 260 | 30 | | | 30 | | | 30 | | | 30 | | |
| 40 | 918pm | 340 | 40 | | | 40 | | | 40 | | | 40 | | |
| 50 | 921pm | 400 | 50 | | | 50 | | | 50 | | | 50 | | |
| 60 | 924pm | 380 | 60 | | | 60 | | | 60 | | | 60 | | |
| 70 | | | 70 | | | 70 | | | 70 | | | 70 | | |
| 80 | | | 80 | | | 80 | | | 80 | | | 80 | | |
| 90 | | | 90 | | | 90 | | | 90 | | | 90 | | |
| 100 | | | 100 | | | 100 | | | 100 | | | 100 | | |
| 110 | | | 110 | | | 110 | | | 110 | | | 110 | | |
| 120 | | | 120 | | | 120 | | | 120 | | | 120 | | |
| 130 | | | 130 | | | 130 | | | 130 | | | 130 | | |
| 140 | | | 140 | | | 140 | | | 140 | | | 140 | | |
| 150 | | | 150 | | | 150 | | | 150 | | | 150 | | |

Notes:

bumped plug at 926 pm 600 psi

84.8 bbls slurry

casing test 1500 psi 15 min

X Dennis Tarochi
Work Preformed

X Engineer Wellsite Supv.
Title

X 10-18-14
Date