



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/12/2014

Invoice # 12626

API# 05-123-37976

Foreman: Calvin Reimers

Customer: Encana

Well Name: McConahay 4A-34H

County: Weld

State: Colo.

Sec: 34

Twp: 2N

Range: 66W

Consultant: Mike

Rig Name &amp; Number: Ensign 124

Distance To Location: 24 Miles

Units On Location: 3106/3203

Time Requested: 200pm

Time Arrived On Location: 140pm

Time Left Location: 9:00 pm

## WELL DATA

Casing Size OD (in) : 9.6250  
Casing Weight (lb) : 40  
Casing Depth (ft) : 1,130  
Total Depth (ft) : 1160  
Open Hole Diameter (in.) : 12.25  
Conductor Length (ft) : 84  
Conductor ID : 16  
Shoe Joint Length (ft) : 45  
Landing Joint (ft) : 17

Max Rate: 7  
Max Pressure: 2500

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 15.2  
Cement Yield (cuft) : 1.27  
Gallons Per Sack: 5.89  
% Excess: 45%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit: 34  
Fluid Ahead (bbls):  
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

30bbls H2O+KCL+Dye in 2nd 10bbls

Casing ID

8.835

Casing Grade

J-55 only used

## Calculated Results

**cuft of Shoe** 19.14 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor** 74.84 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 327.58 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 421.56 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 108.87 bbls  
(Total Slurry Volume) X (.1781) X (% Excess Cement)

**Sacks Needed** 481 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 67.50 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 83.56 bbls

(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

**Hydrostatic Pressure:** 892.23 PSI

## Pressure of the fluids inside casing

**Displacement:** 467.84 psi**Shoe Joint:** 35.51 psi**Total** 503.34 psi**Differential Pressure:** 388.89 psi**Collapse PSI:** 2570.00 psi**Burst PSI:** 3950.00 psi**Total Water Needed:** 201 bbls  
~~87.50 bbls~~

x *Bud Burke*  
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.



Customer  
Well Name

Encana  
McConahay 4A-34H

Treatment Report Page 2

## DESCRIPTION OF JOB EVENTS

Notes:

The day

Float Held

Casing PSI Test 757pm 1500psi to 812pm 1500psi

1/2 bbl back on bleed off

Rig water was at 67.40 F

Notes:

## The day

Float Held

Casing PSI Test 757pm 1500psi to 812pm 1500psi

1/2 hhl back on bleed off

Rig water was at 67.40 F

X Bud Burke

## X Drilling Supervisor

X	Work Preformed
---	----------------

X 2-12-14  
Date





# Bison Oil Well Cementing Single Cement Surface Pipe

## Cementing Customer Satisfaction Survey

Service Date	2/12/2014
Well Name	McConahay 4A-34H
County	Weld
State	Colo.
SEC	34
TWP	2N
RNG	66W

Invoice Number	20511
API #	05-123-37976
Job Type	Single Cement Surface Pipe
Company Name	Encana

Customer Representative **Mike / Bubby**

Supervisor Name **Calvin Reimers**

Employee Name (Including Supervisor)
Calvin Reimers
Pablo S
Lee S
Keith P

### Exposure Hours (Per Employee)

7
7
7
7
28

Total Exposure Hours

Did we encounter any problems on this job?

☐ Yes

☒ No

### To Be Completed By Customer

#### Rating/Description

- 5 - Superior Performance (Established new quality/performance standards)
- 4 - Exceeded Expectation (Provided more than what was required/expected)
- 3 - Met Expectations (Did what was expected)
- 2 - Below Expectations (Job problems/failures occurred - \*Recovery made)
- 1 - Poor Performance (Job problems/failures occurred - \*Some recovery made)

\*Recovery: resolved issue(s) on jobsite in a timely and professional manner

#### RATING CATEGORY

3	Personnel -
3	Equipment -
3	Job Design -
3	Product/Material -
4	Health & Safety -
4	Environmental -
4	Timeliness -
3	Condition/Appearance -
3	Communication -

#### CUSTOMER SATISFACTION RATING

- Did our personnel perform to your satisfaction?
- Did our equipment perform to your satisfaction?
- Did we perform the job to the agreed upon design?
- Did our products and materials perform as you expected?
- Did we perform in a safe and careful manner (Pre/post mtgs, PPE, TSMR, etc..)?
- Did we perform in an environmentally sound manner (spills, leaks, cleanup, etc..)?
- Was job performed as scheduled (On time to site, accessible to customers, completed when expected)?
- Did the equipment condition and appearance meet your expectations?
- How well did our personnel communicate during mobilization, rig up and job execution?

Please Circle:

- Yes ☒ No Did an accident or injury occur?
- Yes ☒ No Did an injury requiring medical treatment occur?
- Yes ☒ No Did a first-aid injury occur?
- Yes ☒ No Did a vehicle accident occur?
- Yes ☒ No Was a post-job safety meeting held?

Please Circle:

- Yes ☒ No Was a pre-job safety meeting held?
- Yes ☒ No Was a job safety analysis completed?
- Yes ☒ No Were emergency services discussed?
- Yes ☒ No Did environmental incident occur?
- Yes ☒ No Did any near misses occur?

Additional Comments:

THE INFORMATION HEREIN IS CORRECT -

**X Bud Burke**  
Customer Representative's Signature

DATE:

**2-12-14**

Any additional Customer Comments or HSE concerns should be described on the back of this form

# M/D TOTCO 2000 SERIES

