



# BISON

Bison Oil Well Cementing Inc.  
1547 Gaylord Street  
Denver, CO 80206  
303-296-3010

## Invoice ✓

Date	Invoice #
9/12/2014	35037

Bill To
Noble Energy Inc. Attn: Accounting 1625 Broadway Ste 2000 Denver, CO 80202

Location	Well Name & No.	Terms	Job Type		
Weld CO	Coalview G02-66-IHN	Net 30	Surface Pipe		
Item	Description	Qty	U/M	Rate	Amount
Pump surface	PUMP Charge-surface pipe	1			
Discount 15%	Discount 15%				
MILEAGE	Mileage charge	360			
Discount 15%	Discount 15%				
Service Charge	PSI Test	1			
	Subtotal of Services				
BFN III Summer ...	BFN III Blend	342	Sack		
Discount 15%	Discount 15%				
Dye - 4880	Dye (Hot Pink 4880)	15	oz		
Discount 15%	Discount 15%				
KCL Mud Flush	(BHS 117)	5	qt		
Discount 15%	Discount 15%				
	Subtotal of Materials				

Please Remit Payment To:

Bison Oil Well Cementing, Inc.  
P.O. Box 29671  
Thornton, CO 80229

Subtotal

Sales Tax

Total

Balance Due



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 9/12/2014  
Invoice #: 35037  
API#:   
Foreman: Kirk Kallhoff

Customer: Noble Energy Inc.

Well Name: coalview g02-66-1hn

County: Weld

State: Colorado

Sec: 1

Twp: 4n

Range: 65w

Consultant: jim

Rig Name & Number: h&p 343

Distance To Location: 10

Units On Location: 4030-3103/3105-3210

Time Requested: 300 am

Time Arrived On Location: 130 am

Time Left Location: 7:00 am

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft) : 643  
Total Depth (ft) : 684  
Open Hole Diameter (in.) : 13.75  
Conductor Length (ft) : 100  
Conductor ID : 16  
Shoe Joint Length (ft) : 40  
Landing Joint (ft) : 0

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: 30%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 50.0  
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 17.36 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 371.22 cuft  
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)  
Total Slurry Volume 477.68 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)  
bbls of Slurry 85.07 bbls  
(Total Slurry Volume) X (.1781)  
Sacks Needed 376 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
Mix Water 52.75 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 46.62 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 507.71 PSI

## Pressure of the fluids inside casing

Displacement: 260.00 psi

Shoe Joint: 31.58 psi

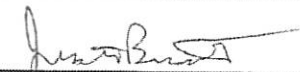
Total 291.59 psi

Differential Pressure: 216.13 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 169.36 bbls

X   
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.



INVOICE #  
LOCATION  
FOREMAN  
Date

Customer	Noble Energy Inc.
Well Name	coalview g02-66-1hn

Treatment Report Page 2

35037
Weld
Kirk Kallhoff
9/12/2014

### DESCRIPTION OF JOB EVENTS

[illegible]

Notes:

bumped plug at 613 am 500 psi

77.3 bbls slurry

casing test 1000 psi 15 min

X 

x *De Pauw*

X 9-18-14

Work Preformed

Title

Date \_\_\_\_\_