



# Bison Oil Well Cementing Tail & Lead

Date: 2/5/2021

Invoice # 200670

AFE #

Foreman: Terry Richey

Customer: Noble Energy Inc.

Well Name: REVEILLE A34-757

05-123-50789

County: Weld

State: Colorado

Sec: 34

Twp: 6N

Range: 64W

Consultant: jim

Rig Name & Number: H&P 517

Distance To Location: 10

Units On Location: 4028/3103-4020/3203 4025/3214

Time Requested: 600 am

Time Arrived On Location: 440 am

Time Left Location:

## WELL DATA

Casing Size (in) : 9.625  
Casing Weight (lb) : 36  
Casing Depth (ft.) : 1,892  
Total Depth (ft) : 1937  
Open Hole Diameter (in) : 13.50  
Conductor Length (ft) : 110  
Conductor ID : 15.5  
Shoe Joint Length (ft) : 41  
Landing Joint (ft) : 2

Sacks of Tail Requested 100  
HOC Tail (ft): 0

One or the other, cannot have quantity in both

Max Rate: 8  
Max Pressure: 700

## Cement Data

### Lead

Cement Name:  
Cement Density (lb/gal) : 13.5  
Cement Yield (cuft) : 1.68  
Gallons Per Sack 8.90  
% Excess 10%

### Tail

Cement Name:  
Cement Density (lb/gal) : 15.2  
Cement Yield (cuft) : 1.27  
Gallons Per Sack: 5.89  
% Excess:

Fluid Ahead (bbls) 30.0  
H2O Wash Up (bbls) 20.0

### Spacer Ahead Makeup

30BBL WATER DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

## Lead Calculated Results

HOC of Lead 1556.13 ft  
Casing Depth - HOC Tail  
Volume of Lead Cement 760.53 cuft  
HOC of Lead X Open Hole Ann  
Volume of Conductor 88.56 cuft  
(Conductor ID Squared) - (Casing Size OD Squared) X (.005454) X  
(Conductor Length ft)  
Total Volume of Lead Cement 849.08 cuft  
(cuft of Lead Cement) + (Cuft of Conductor)  
bbls of Lead Cement 166.34 bbls  
(Total cuft of Lead Cement) X (.1781) X (1+%Lead Excess)  
Sacks of Lead Cement 555.95 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
bbls of Lead Mix Water 117.81 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42  
Displacement 143.12 bbls  
(Casing ID Squared) X (.0009714) X (Casing Depth) - (Shoe Length)  
Total Water Needed: 324.95 bbls

## Tail Calculated Results

Tail Cement Volume In Ann 127.00 cuft  
(HOC Tail) X (OH Ann)  
Total Volume of Tail Cement 109.41 Cuft  
(HOC Tail X OH Ann) - (Shoe Length X Shoe Joint Ann)  
bbls of Tail Cement 22.62 bbls  
(HOC of Tail) X (OH Ann) + (Cement Yield) X (Shoe Joint Ann) X (.1781) X (%  
Excess)  
HOC Tail 223.87 ft  
(Tail Cement Volume) ÷ (OH Ann)  
Sacks of Tail Cement 100.00 sk  
(Total Volume of Tail Cement) ÷ (Cement Yield)  
bbls of Tail Mix Water 14.02 bbls  
(Sacks of Tail Cement X Gallons Per Sack) ÷ 42  
Pressure of cement in annulus  
Hydrostatic Pressure 585.23 PSI  
Collapse PSI: 2020.00 psi  
Burst PSI: 3520.00 psi

Centralizers: 18

X

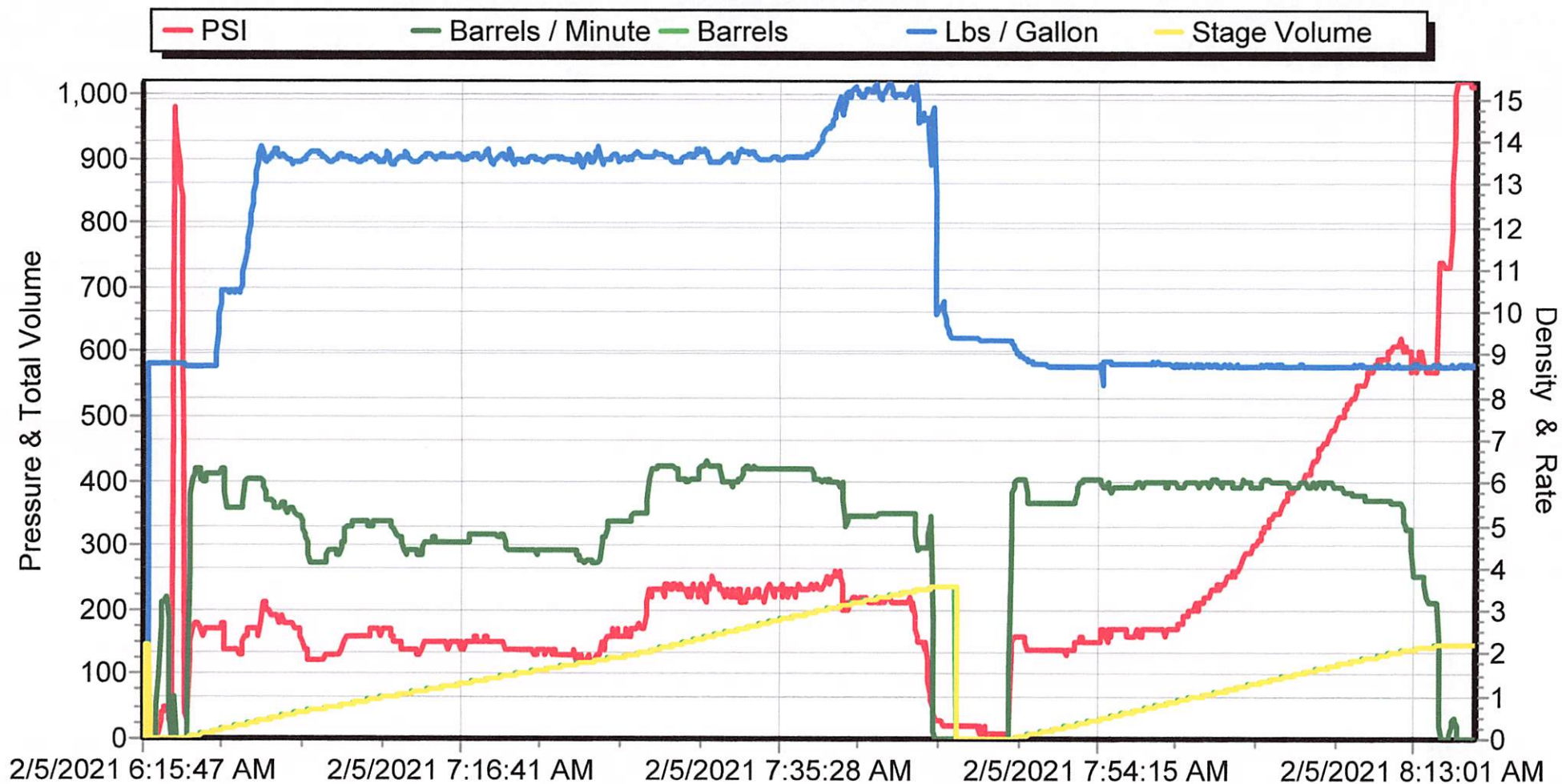
Jim Kraw

Authorization To Proceed

Date \_\_\_\_\_



## SERIES 2000





# Bison Oil Well Cementing Tail & Lead

## Cementing Customer Satisfaction Survey

Service Date	3/4/2020
Well Name	REVELLE A34-757
County	Weld
State	Colorado
SEC	34
TWP	6N
RNG	64W

Invoice Number	200670
AFE #	
Job Type	Two Cement Surface
Company Name	Noble Energy Inc.

Customer Representative **Charles**

Supervisor Name **Terry Richey**

Employee Name (Including Supervisor)
Kirt
Chris Chavez
Joe w
Charlie
Joe F

Exposure Hours (Per Employee)
4
4
4

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	CUSTOMER SATISFACTION RATING
	Personnel -	Did our personnel perform to your satisfaction?
	Equipment -	Did our equipment perform to your satisfaction?
	Job Design -	Did we perform the job to the agreed upon design?
	Product/Material -	Did our products and materials perform as you expected?
	Health & Safety -	Did we perform in a safe and careful manner (Pre/post mtgs, PPE, TSMR, etc..)?
	Environmental -	Did we perform in an environmentally sound manner (spills, leaks, cleanup, etc..)?
	Timeliness -	Was job performed as scheduled (On time to site, accessible to customers, completed when expected)?
	Condition/Appearance -	Did the equipment condition and appearance meet your expectations?
	Communication -	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

Customer Representative's Signature

DATE:

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