

Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/1/2014

Invoice # 12821

API# 05-123-37972

Foreman: Calvin Reimers

Customer: Encana

Well Name: McConahay 4B-34H-P266

County: Weld

State: Colorado

Sec: _____

Twp: _____

Range: _____

Consultant: Chris

Rig Name & Number: Ensign 124

Distance To Location: 25 Miles

Units On Location: 3106/3204

Time Requested: 300am

Time Arrived On Location: 130am

Time Left Location: 1200pm

WELL DATA

Casing Size OD (in) : 9.6250
Casing Weight (lb) : 40
Casing Depth (ft.) : 1,117
Total Depth (ft) : 1140
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 84
Conductor ID : 15.5
Shoe Joint Length (ft) : 45
Landing Joint (ft) : 16

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

Spacer Ahead Makeup

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

Casing ID

8.835

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.05 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 67.63 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)
cuft of Casing 323.51 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)
Total Slurry Volume 410.18 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 105.93 bbls
(Total Slurry Volume) X (.1781) X (% Excess Cement)
Sacks Needed 468 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 65.68 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 82.52 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 881.98 PSI

Pressure of the fluids inside casing

Displacement: 462.33 psi

Shoe Joint: 35.33 psi

Total 497.66 psi

Differential Pressure: 384.31 psi

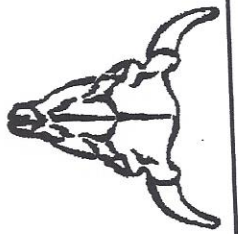
Collapse PSI: 2570.00 psi

Burst PSI: 3950.00 psi

Total Water Needed: 85.68 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.



Bison Oil Well Cementing
Single Cement Surface Pipe

Customer
Well Name

Encana
McConahay 4B-34H-P266

INVOICE #
LOCATION
FOREMAN
Date

12821
Weld
Calvin Reimers
2/1/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	722am 630am 946am	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
Safety Meeting																
MIRU																
CIRCULATE																
Drop Plug																
1018am		0	1016am	80	0			0			0			0		
		10	1019am	200	10			10			10			10		
		20	1021am	240	20			20			20			20		
		30	1022am	320	30			30			30			30		
		40	1024am	270	40			40			40			40		
		50	1027am	230	50			50			50			50		
M & P		60	Bump	450	60			60			60			60		
Time	Sacks	70			70			70			70			70		
952am	468	80			80			80			80			80		
1016am		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
		120			120			120			120			120		
% Excess	45%	130			130			130			130			130		
Mixed bbls	65.68	140			140			140			140			140		
Total Sacks	468	150			150			150			150			150		
bbl Returns	30															

Notes:

The day

Float Held

1/2 bbl back on bleed off

Casing PSI Test 1500psi at 1037am

to 1470psi at 1052am

Rigs water was 90°F

X 

X
Title

X
Date

Work Performed



Bison Oil Well Cementing Single Cement Surface Pipe

Cementing Customer Satisfaction Survey

Service Date	2/1/2014
Well Name	McConahay 4B-34H-P266
County	Weld
State	Colorado
SEC	0
TWP	0
RNG	0

Invoice Number	20511
API #	05-123-37972
Job Type	Single Cement Surface Pipe
Company Name	Encana

Customer Representative **David**

Supervisor Name **Calvin Reimers**

Employee Name (Including Supervisor)	
Calvin Reimers	
Pablo S	
Tim V	
Eric R	

Exposure Hours (Per Employee)

10.5
10.5
10.5
10.5
42

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

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

Customer Representative's Signature

DATE:

2/1/14
1/31/14

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

M/D TOTCO 2000 SERIES

