





# Bison Oil Well Cementing Tail & Lead

Date: 3/21/2014

Invoice #: 12160

API#: 05-125-12077-00

Foreman: Aaron Carrasco

Customer: Excell

Well Name: N B Farms 22-01 1n 46w

Consultant: mark zion

Rig Name & Number: excell rig 2

Distance To Location: 60

Units On Location: 3101-4029-4020-3205

Time Requested: 10:30 pm

Time Arrived On Location: 9:30 pm

Time Left Location:

County: yuma

State: colorado

Sec: 1

Twp: 1n

Range: 46w

## WELL DATA

Casing Size (in) : 4.500  
 Casing Weight (lb) : 10.5  
 Casing Depth (ft) : 2,698  
 Total Depth (ft) : 2725  
 Open Hole Diameter (in) : 6.25  
 Conductor Length (ft) : 0  
 Conductor ID : 0  
 Shoe Joint Length (ft) : 43  
 Landing Joint (ft) : 9

Sacks of Tail Requested: 75  
 HOC Tail (ft): 0

One or the other, cannot have quantity in both

Max Rate: 4 bls min  
 Max Pressure: 1500 psi

## Cement Data

### Lead

Cement Name:  
 Cement Density (lb/gal) : 12.1  
 Cement Yield (cuft) : 2.21  
 Gallons Per Sack : 12.04  
 % Excess : 0%

### Tail

Cement Name:  
 Cement Density (lb/gal) : 13.8  
 Cement Yield (cuft) : 1.33  
 Gallons Per Sack : 6.28  
 % Excess : 0%

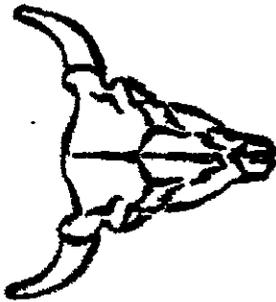
Fluid Ahead (bbls) : 0.0  
 H2O Wash Up (bbls) : 0.0

Spacer Ahead Makeup  
 5-kcl = 10- dye = 42 kcl

Lead Calculated Results		Tail Calculated Results	
HOC of Lead	1754.34 ft	Tail Cement Volume In Ann (HOC Tail) X (OH Ann)	99.75 cuft
Casing Depth - HOC Tail		Total Volume of Tail Cement (HOC Tail X OH Ann) - (Shoe Length X Shoe Joint Ann)	95.90 Cuft
Volume of Lead Cement HOC of Lead X Open Hole Ann	180.00 cuft	bbls of Tail Cement (HOC of Tail) X (OH Ann) + (Cement Yield) X (Shoe Joint Ann) X (.1781) X (% Excess)	17.77 bbls
Volume of Conductor (Conductor ID Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	0.00 cuft	HOC Tail (Tail Cement Volume) ÷ (OH Ann)	934.66 ft
Total Volume of Lead Cement (cuft of Lead Cement) + (Cuft of Conductor)	180.00 cuft	Sacks of Tail Cement (Total Volume of Tail Cement) ÷ (Cement Yield)	75.00 sk
bbls of Lead Cement (Total cuft of Lead Cement) X (.1781) X (1+%Lead Excess)	32.06 bbls	bbls of Tail Mix Water (Sacks of Tail Cement X Gallons Per Sack) ÷ 42	11.21 bbls
Sacks of Lead Cement (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	81.45 sk	Pressure of cement in annulus	
bbls of Lead Mix Water (Sacks Needed) X (Gallons Per Sack) ÷ 42	23.35 bbls	Hydrostatic Pressure	1695.96 PSI
Displacement (Casing ID Squared) X (.0009714) X (Casing Depth) + (Landing Joint) - (Shoe Length)	42.36 bbls	Collapse PSI:	#N/A psi
Total Water Needed:	23.35 bbls	Burst PSI:	#N/A psi

X

Authorization To Proceed



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

Date: 3/21/2014  
 INVOICE #: 12160  
 LOCATION: yuma  
 FOREMAN: Aaron Carrasco

Customer: Excell  
 Well Name: N B Farms 22-01 1n 46w

Treatment Report Page 2

**DESCRIPTION OF JOB EVENTS**

	Displace 1		Displace 2		Displace 3		Displace 4		Displace 5	
	BbLS	Time	BbLS	Time	BbLS	Time	BbLS	Time	BbLS	Time
Safety Meeting	0	11:55 pm	0		0		0		0	
MIRU	10	9:32 pm	10		10		10		10	
CIRCULATE	20	12:02 am	20		20		20		20	
Drop Plug	30	12:36 am	30		30		30		30	
	40	12:36 am	40		40		40		40	
	50	12:36 am	50		50		50		50	
M & P	60		60		60		60		60	
Time	70		70		70		70		70	
12:17 am	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	
Lead mixed bbbls	130	33	130		130		130		130	
Lead % Excess	140	41%	140		140		140		140	
Lead Sacks	150	115	150		150		150		150	

**Notes:**

Tail mixed bbbls	11.2
Tail % Excess	0%
Tail Sacks	75
Total Sacks	190
bbbl Returns	



# Bison Oil Well Cementing Tail & Lead

## Cementing Customer Satisfaction Survey

Service Date	3/21/2014
Well Name	N B Farms 22-01 1n 46w
County	yuma
State	colorado
SEC	1
TWP	1n
RNG	46w

Invoice Number	12160
API #	05-125-12077-00
Job Type	
Company Name	Excell

Customer Representative:

Supervisor Name:

Employee Name (Including Supervisor)
Aaron
Jairo
Oscar

Exposure Hours (Per Employee)
4
4
4
12

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:		Please Circle:	
Yes	No	Yes	No
Yes	No	Yes	No
Yes	No	Yes	No
Yes	No	Yes	No
Yes	No	Yes	No

Additional Comments:

THE INFORMATION HEREIN IS CORRECT -

X

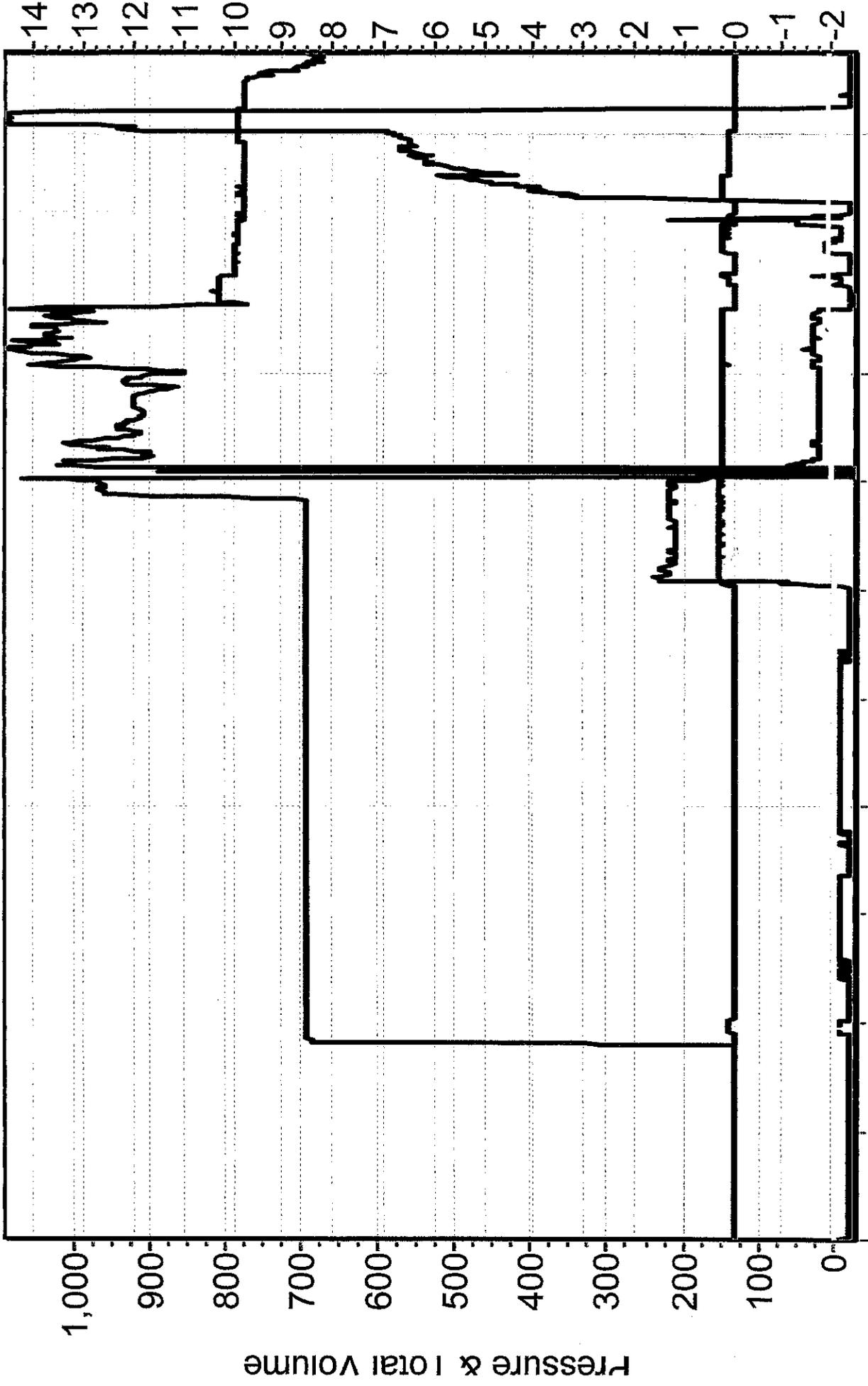
Customer Representative's Signature

DATE:

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

# M/D TOTCO 2000 SERIES

— PSI      — Barrels / Minute      — Barrels      — Lbs / Gallon



3/26/2014 10:53:38 PM      3/26/2014 11:38:32 PM      3/27/2014 12:23:37 AM