



# Bison Oil Well Cementing Tail & Lead

Customer: billm barrett  
Well Name: co state 15-66-36-0108bh

Date: 1/25/2014  
Invoice #: 12304  
API#: 445564  
Foreman: monte

County: adams  
State: Colorado  
Sec: 36  
Twp: 15n  
Range: 66w

Consultant: casey  
Rig Name & Number: major  
Distance To Location: 37.1  
Units On Location: 3  
Time Requested: 12:30  
Time Arrived On Location: 11:30  
Time Left Location:

## WELL DATA

Casing Size (in) : 9.625  
Casing Weight (lb) : 36  
Casing Depth (ft) : 1,511  
Total Depth (ft) : 1520  
Open Hole Diameter (in) : 13.50  
Conductor Length (ft) :   
Conductor ID : 15.5  
Shoe Joint Length (ft) : 43  
Landing Joint (ft) :

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

One or the other, cannot have quantity in both

Max Rate:  
Max Pressure:

## Cement Data

### Lead

Cement Name:  
Cement Density (lb/gal) : 13.1  
Cement Yield (cuft) : 1.69  
Gallons Per Sack 8.64  
% Excess 30%

### Tail

Cement Name:  
Cement Density (lb/gal) : 15.2  
Cement Yield (cuft) : 1.27  
Gallons Per Sack: 5.89  
% Excess: 0%

Fluid Ahead (bbls) 50.0  
H2O Wash Up (bbls) 20.0

Spacer Ahead Makeup  
40 fresh 10 dye

Casing ID

8.921

Casing Grade

J-55 only used

## Lead Calculated Results

HOC of Lead 1289.33 ft  
Casing Depth - HOC Tail  
Volume of Lead Cement 630.13 cuft  
HOC of Lead X Open Hole Ann  
Volume of Conductor 0.00 cuft  
(Conductor ID Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)  
Total Volume of Lead Cement 630.13 cuft  
(cuft of Lead Cement) + (Cuft of Conductor)  
bbls of Lead Cement 145.90 bbls  
(Total cuft of Lead Cement) X (.1781) X (1+%Lead Excess)  
Sacks of Lead Cement 484.72 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)  
bbls of Lead Mix Water 99.71 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42  
Displacement 113.48 bbls  
(Casing ID Squared) X (.0009714) X (Casing Depth) + (Landing Joint) - (Shoe Length)  
Total Water Needed: 169.71 bbls

## Tail Calculated Results

Tail Cement Volume In Ann 127.00 cuft  
(HOC Tail) X (OH Ann)  
Total Volume of Tail Cement 108.34 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 221.67 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 1028.24 PSI  
Collapse PSI: 2020.00 psi  
Burst PSI: 3520.00 psi

X Casey  
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 Two Cement Surface Pipe

Customer  
Well Name

billm barrett  
co state 15-66-36-0108bh

Date  
INVOICE #  
LOCATION  
FOREMAN

41664  
12304  
adams  
monte

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## DESCRIPTION OF JOB EVENTS

		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	12:53pm															
MIRU	11:45															
CIRCULATE	1:07	0	1:57	10	0			0			0			0		
Drop Plug		10	12:04	20	10			10			10			10		
1:57		20	2:06	80	20			20			20			20		
		30	2:08	90	30			30			30			30		
		40	2:10	130	40			40			40			40		
		50	2:12	190	50			50			50			50		
M & P		60	2:14	20	60			60			60			60		
Time	Sacks	70	2:01	290	70			70			70			70		
1:15-1:55	584.72	80	2:18	340	80			80			80			80		
		90	2:20	310	90			90			90			90		
		100	2:22	330	100			100			100			100		
		110	2:25	350	110			110			110			110		
		120	2:36	580	120			120			120			120		
Lead mixed bbls	99.71	130			130			130			130			130		
Lead % Excess	30%	140			140			140			140			140		
Lead Sacks	485	150			150			150			150			150		

### Notes:

Tail mixed bbls	14.02	circulate 50 bbls ahead with dye in last 10, mix and pump 484.72 sks lead cement, 13,1 , 1.69 yield, 8.64 h2o
Tail % Excess	0%	mix and pump 100 sks tail cement at 15.2, 1.27 yield, 5.89 h2o
Tail Sacks	100	displace 113.4 bbls h2o, bump plug at 2:00am at 580 psi, hold 5 min, release pressure wash up rig down
		33 bbls back to pit
Total Sacks	585	#VALUE!
bbl Returns	33	

X

Work Performed

X

Title

Co-man

X

Date