



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/21/2014

Invoice # 12082

API# 05-123-38964

Foreman: Calvin Reimers

Customer: Bill Barrett

Well Name: Anchutz State 4-62-2-3228CH2

County: Weld

State: Colorado

Sec: 2

Twp: 4N

Range: 62W

Consultant: Casey

Rig Name & Number: Major 43

Distance To Location: 59 Miles

Units On Location: 3104/3210

Time Requested: 330pm

Time Arrived On Location: 355pm

Time Left Location: 630pm

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 15.2
Casing Depth (ft) : 808	Cement Yield (cuft) : 1.27
Total Depth (ft) : 810	Gallons Per Sack: 5.89
Open Hole Diameter (in.) : 13.50	% Excess: 10%
Conductor Length (ft) :	Displacement Fluid lb/gal: 8.3
Conductor ID :	BBL to Pit: 14.0
Shoe Joint Length (ft) : 37	Fluid Ahead (bbls): 60.0
Landing Joint (ft) : 8	H2O Wash Up (bbls): 20.0
Max Rate: 7	Spacer Ahead Makeup
Max Pressure: 2500	10bbls H2O+KCL+Dye in 2nd 10bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results	Pressure of cement in annulus
cuft of Shoe 16.06 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	Displacement: 60.22 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
cuft of Conductor 0.00 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Hydrostatic Pressure: 638.00 PSI
cuft of Casing 394.89 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Pressure of the fluids inside casing
Total Slurry Volume 410.95 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Displacement: 332.44 psi Shoe Joint: 29.22 psi Total 361.66 psi
bbls of Slurry 80.51 bbls (Total Slurry Volume) X (.1781) X (% Excess Cement)	Differential Pressure: 276.34 psi
Sacks Needed 356 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Collapse PSI: #N/A psi Burst PSI: #N/A psi
Mix Water 49.92 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Total Water Needed: 190.14 bbls

X Casey Jan
 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

Bill Barrett
Anchutz State 4-62-2-3228CH2

INVOICE #
LOCATION
FOREMAN
Date

12082
Weld
Calvin Reimers
3/21/2014

Treatment Report Page 2

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	436pm															
MIRU	400pm															
CIRCULATE	451pm	0	524pm	50	0			0			0			0		
Drop Plug		10	527pm	70	10			10			10			10		
523pm		20	528pm	110	20			20			20			20		
		30	530pm	180	30			30			30			30		
		40	532pm	270	40			40			40			40		
M & P		50	534pm	320	50			50			50			50		
Time	Sacks	60	538pm	290	60			60			60			60		
501pm	356	70	Bump	430	70			70			70			70		
521pm		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	10%	120			120			120			120			120		
Mixed bbls	49.92	130			130			130			130			130		
Total Sacks	356	140			140			140			140			140		
bbl Returns	14	150			150			150			150			150		
Water Temp	50															

Notes:

The day

Float Held

1/2 bbl back on bleed off

X Casey Pan
Work Performed

X Co-man
Title

X 3-21-14
Date