



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/7/2014

Invoice # 65025

API# 05123 38953

Foreman: Lee Sharp

Customer: Anadarko Petroleum Corporation

Well Name: Barclay 27C-11HZ

County: Weld

State: Colorado

Sec: 14

Twp: 2N

Range: 67W

Consultant: Toby

Rig Name & Number: Major 42

Distance To Location: 23

Units On Location: 7023106, 4015 & 4022 10203212

Time Requested: 15:00

Time Arrived On Location: 14:08

Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 934
Total Depth (ft) : 944
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 0
Conductor ID : 0
Shoe Joint Length (ft) : 38
Landing Joint (ft) : 8

Max Rate:

Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 20%
Displacement Fluid lb/gal: 8.3
BBL to Pit:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

10F+10RED+10F= 30bbl

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 16.48 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 0.00 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 547.77 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 564.24 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 100.49 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 379 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 67.44 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 69.89 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 689.01 PSI

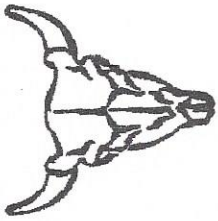
Pressure of the fluids inside casing

Displacement: 386.36 psi**Shoe Joint:** 28.00 psi**Total** 414.36 psi**Differential Pressure:** 274.65 psi**Collapse PSI:** 2020.00 psi**Burst PSI:** 3520.00 psi**Total Water Needed:** 187.33 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

Anadarko Petroleum Corporation
Bardlay 27C-11HZ

INVOICE #
LOCATION
FOREMAN
Date

65025
Weld
lee Sharp
11/7/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	4:30 PM 16:15 4:50	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		0	17:19		0			0			0			0		
MIRU		10	17:22	20	10			10			10			10		
CIRCULATE		20	17:25	30	20			20			20			20		
Drop Plug		30	17:28	140	30			30			30			30		
5:19		40	17:30	250	40			40			40			40		
		50	17:32	300	50			50			50			50		
M & P		60	17:35	340	60			60			60			60		
Time		70	Landed	1350	70			70			70			70		
4:57-5:17	Sacks	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		
		130			130			130			130			130		
		140			140			140			140			140		
		150			150			150			150			150		
% Excess	20%															
Mixed bbls	67.5															
Total Sacks	379															
bbl Returns	23															
Water Temp	60															

Notes:

The day Job went smoothly. Plug landed on calculated landed @ 1350 held for 2 minutes 1360 psi released checked floats. Casing check@ 5:41 1000 psi held 2

minutes released. Cleaned up and rig down

X *[Signature]*

X

Title

X

Date

Barclay 27C-11HZ Surface inv 65025

PSI — Barrels / Minute — Barrels — Lbs / Gallon — Stage Volume

