

# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/3/2014

Invoice # 45067

API# 05-123-39174

Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: GEE 15N-25HZ

County: Weld

State: Colorado

Sec: 24

Twp: 2N

Range: 67W

Consultant: RANDY

Rig Name & Number: MAJORS 27

Distance To Location: 18

Units On Location: 4031-3106/ 4018-3204

Time Requested: 1630

Time Arrived: 1530

Time Left Location: 2230

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 36.00  
Casing Depth (ft.) : 1,033  
Total Depth (ft) : 1050  
Open Hole Diameter (in.) : 13.50  
Conductor Length (ft) :  
Conductor ID :  
Shoe Joint Length (ft) : 40  
Landing Joint (ft) : 8

Max Rate: 7  
Max Pressure: 2500

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 14.2  
Cement Yield (cuft) : 1.49  
Gallons Per Sack: 7.48  
% Excess: 26%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit: 24.0  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup  
30 BBL WATER, DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

**cuft of Shoe** 17.43 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** 635.15 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 652.57 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 116.22 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 438 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 78.00 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 77.38 bbls

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

## Pressure of cement in annulus

**Hydrostatic Pressure:** 762.09 PSI

## Pressure of the fluids inside casing

**Displacement:** 428.12 psi

**Shoe Joint:** 29.62 psi

**Total** 457.74 psi

**Differential Pressure:** 304.35 psi

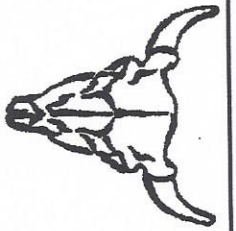
**Collapse PSI:** 2020.00 psi

**Burst PSI:** 3520.00 psi

**Total Water Needed:** 205.38 bbls

*X [Signature]*  
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  
GEE 15N-25HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

45067  
Weld  
JASON KELEHER  
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**DESCRIPTION OF JOB EVENTS**

Safety Meeting	1930	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
	1815	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
MIRU	2026	0	2105	0	0			0			0			0		
CIRCULATE Drop Plug		10	2107	10	10			10			10			10		
		20	2110	60	20			20			20			20		
		30	2113	150	30			30			30			30		
		40	2115	220	40			40			40			40		
M & P		50	2117	290	50			50			50			50		
		60	2119	340	60			60			60			60		
		70	2121	340	70			70			70			70		
		80	2126	320	80			80			80			80		
Time		90	BUMP	1310	90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
		120			120			120			120			120		
% Excess	25%	130			130			130			130			130		
Mixed bbls	78	140			140			140			140			140		
Total Sacks	438	150			150			150			150			150		
bbl Returns	24															
Water Temp	53															

Notes:

PERFORMED PRESSURE TEST TO 2000 PSI AT 2024, PUMPED 30 BBL WATER WITH DYE IN THE 2ND 10 AT 2026, MIXED AND PUMPED 438 SKS AT 14.2,

116.2 BBL AT 2033, SHUT DOWN AT 2103, STARTED DISPLACEMENT AT 2105, PLUG LANDED AT 320 PSI AT 2126 AND PRESSURED UP TO 1310 PSI

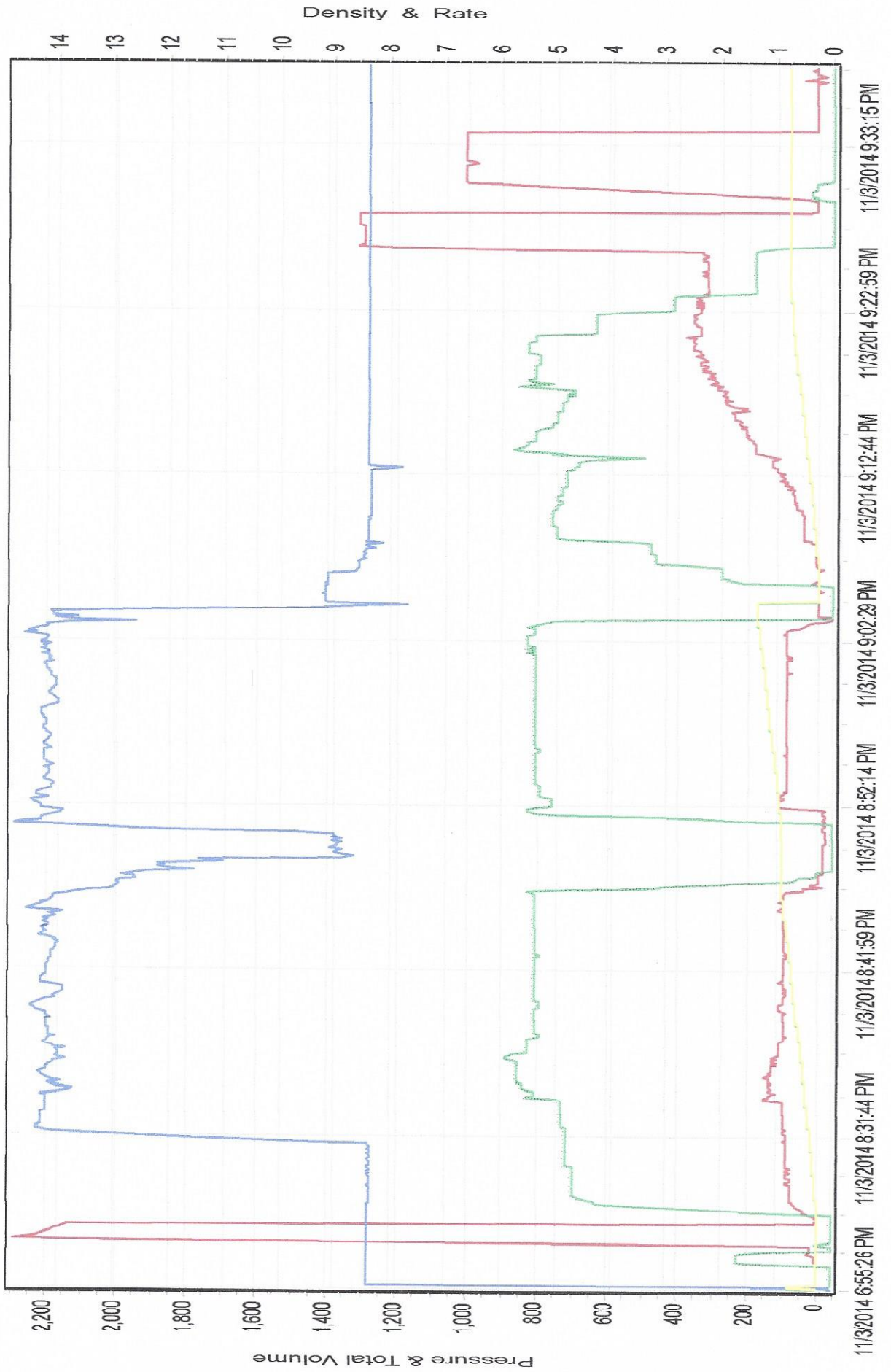
FOR 2 MINUTES AND RELEASED, CHECKED FLOATS AND GOT .5 BBL BACK, REPRESSURED UP TO 1000 PSI FOR 2 MINUTES AND RELEASED.

X *Ralph Ladd*

X Title *APL Consultant*

X Date

# GEE 15N-25HZ SURFACE





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Gallons Per Sack: 7.48

% Excess: 25%

Displacement Fluid lb/gal: 8.3

BBL to Pit:

Fluid Ahead (bbls): 30.0

H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

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