



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/23/2015

Invoice # 80116

API# 05-123-39282

Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: TROUDT 14C-33HZ

County: Weld

State: Colorado

Sec: 33

Twp: 2N

Range: 67W

Consultant: RANDY

Rig Name & Number: ADVANCED 10

Distance To Location: 24

Units On Location: 4031-3107, 4022-3213

Time Requested: 1200

Time Arrived On Location: 2300

Time Left Location: 330

## WELL DATA

Casing Size OD (in) : 9.625

Casing Weight (lb) : 36.00

Casing Depth (ft.) : 1,172

Total Depth (ft) : 1186

Open Hole Diameter (in.) : 13.50

Conductor Length (ft) : 40

Conductor ID : 15.25

Shoe Joint Length (ft) : 44

Landing Joint (ft) : 5

Max Rate: 6

Max Pressure: 1500

## Cement Data

Cement Name: BFN III

Cement Density (lb/gal) : 14.2

Cement Yield (cuft) : 1.49

Gallons Per Sack: 7.48

% Excess: 16%

Displacement Fluid lb/gal: 8.3

BBL to Pit: 5.0

Fluid Ahead (bbls): 30.0

H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

30 BBL WATER W/ DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

## Calculated Results

cuft of Shoe 18.99 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 30.53 cuft

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

cuft of Casing 639.32 cuft

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

Total Slurry Volume 688.84 cuft

(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 122.68 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 462 sk

(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 82.33 bbls

(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 87.58 bbls

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

## Pressure of cement in annulus

Hydrostatic Pressure: 864.28 PSI

## Pressure of the fluids inside casing

Displacement: 486.30 psi

Shoe Joint: 32.28 psi

Total 518.58 psi

Differential Pressure: 345.70 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 219.91 bbls

X *Randy Case*  
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  
TROUDT 14C-33HZ

INVOICE #  
LOCATION  
FOREMAN  
Date

80116  
Weld  
JASON KELEHER  
3/23/2015

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**DESCRIPTION OF JOB EVENTS**

Safety Meeting MIRU CIRCULATE Drop Plug 205 M & P Time 0138-0203 % Excess Mixed bbls Total Sacks bbl Returns Water Temp	115 2300 131    462 16% 82.3 462 5 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
		0	205	0	0			0			0			0		
		10	207	60	10			10			10			10		
		20	209	30	20			20			20			20		
		30	212	30	30			30			30			30		
		40	216	80	40			40			40			40		
		50	218	180	50			50			50			50		
		60	220	250	60			60			60			60		
		70	222	310	70			70			70			70		
		80	224	370	80			80			80			80		
		90	227	350	90			90			90			90		
		100	BUMP	890	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		

Notes:

PERFORMED PRESSURE TEST TO 1500 PSI AT 0129, PUMPED 30 BBL WATER WITH DYE IN 2ND 10 AT 0131, MIXED AND PUMPED 462 SKS AT 14.2, 122.6 BBL AT 0138, SHUT DOWN AT 0203, STARTED DISPLACEMENT AT 0205, PLUG LANDED AT 350 PSI AT 0227 AND PRESSURED UP TO 890, HELD FOR 5 MINUTES AND RELEASED TO CHECK FLOATS, GOT .5 BBL WATER BACK, FLOATS HELD.

X Randy Carr  
Signature

X APC Consultant  
Title

X 03/23/2015  
Date

# TROUDT 14C-33HZ SURFACE

