



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/29/2014

Invoice # 25026

API# 05-123-9427

Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation

Well Name: Sack 2C-30HZ

County: Weld

State: Colorado

Sec: 31

Twp: 1N

Range: 67W

Consultant: Bob

Rig Name & Number: Major 42

Distance To Location: 42 Miles

Units On Location: 4023-3104/4019-3204

Time Requested: 230pm

Time Arrived On Location: 138pm

Time Left Location: 6:00pm

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 14.2
Casing Depth (ft.) : 1,334	Cement Yield (cuft) : 1.49
Total Depth (ft) : 1344	Gallons Per Sack: 7.48
Open Hole Diameter (in.) : 13.50	% Excess: 25%
Conductor Length (ft) :	Displacement Fluid lb/gal: 8.3
Conductor ID :	BBL to Pit: 18
Shoe Joint Length (ft) : 42	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 8	H2O Wash Up (bbls): 20.0
Max Rate: 7	Spacer Ahead Makeup
Max Pressure: 2500	30BBLS H2O+Dye in 2nd 10BBLS

Casing ID 8.921 Casing Grade J-55 only used

Calculated Results	Pressure of cement in annulus
cuft of Shoe 18.23 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	Displacement: 100.50 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: 984.09 PSI
cuft of Casing 816.91 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Pressure of the fluids inside casing
Total Slurry Volume 835.14 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Displacement: 557.09 psi
bbls of Slurry 148.74 bbls (Total Slurry Volume) X (.1781)	Shoe Joint: 30.98 psi
Sacks Needed 560 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Total 588.07 psi
Mix Water 99.82 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Differential Pressure: 396.02 psi
	Collapse PSI: 2020.00 psi
	Burst PSI: 3520.00 psi
	Total Water Needed: 250.32 bbls

X *Bob Hester*
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
Sack 2C-30HZ

INVOICE #
LOCATION
FOREMAN
Date

25026
Weld
Calvin Reimers
7/29/2014

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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	317pm															
MIRU	245pm															
CIRCULATE	346pm	0	420pm	90	0			0			0			0		
Drop Plug		10	423pm	40	10			10			10			10		
419pm		20	424pm	60	20			20			20			20		
		30	427pm	110	30			30			30			30		
		40	428pm	170	40			40			40			40		
M & P		50	430pm	240	50			50			50			50		
Time	Sacks	60	432pm	290	60			60			60			60		
353pm	560	70	434pm	370	70			70			70			70		
416pm		80	436pm	440	80			80			80			80		
		90	437pm	520	90			90			90			90		
		100	441pm	450	100			100			100			100		
		110	Bump	950	110			110			110			110		
% Excess	25%	120			120			120			120			120		
Mixed bbls	99.82	130			130			130			130			130		
Total Sacks	560	140			140			140			140			140		
bbl Returns	18	150			150			150			150			150		
Water Temp	79.1															

Notes:

The day

1/2 bbl back on bleed off

x *Bob Porter m42*

Work Performed

X

Title

X

Date

M/D TOTCO 2000 SERIES

