



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/2/2015

Invoice # 80052

API#

Foreman: kirk kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: skim 34c-28hz

County: Weld

State: Colorado

Sec: 21

Twp: 3n

Range: 65w

Consultant: elis

Rig Name & Number: advanced 10

Distance To Location: 10

Units On Location: 4038-3103/4020-3212

Time Requested: 700 pm

Time Arrived On Location: 500 pm

Time Left Location: 9:00 pm

WELL DATA

Casing Size OD (in) : 9.625
 Casing Weight (lb) : 36.00
 Casing Depth (ft.) : 1,214
 Total Depth (ft) : 1232
 Open Hole Diameter (in.) : 13.50
 Conductor Length (ft) : 45
 Conductor ID : 16
 Shoe Joint Length (ft) : 42
 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: 15%
 Displacement Fluid lb/gal: 8.3
 BBL to Pit:
 Fluid Ahead (bbls): 30.0
 H2O Wash Up (bbls): 10.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.23 cuft
 (Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 40.09 cuft
 (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 657.02 cuft
 (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 715.35 cuft
 (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 127.40 bbls
 (Total Slurry Volume) X (.1781)

Sacks Needed 480 sk
 (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 85.50 bbls
 (Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 91.22 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 895.57 PSI

Pressure of the fluids inside casing

Displacement: 505.34 psi

Shoe Joint: 30.98 psi

Total 536.33 psi

Differential Pressure: 359.24 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 216.73 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
skim 34c-28hz

INVOICE #
LOCATION
FOREMAN
Date

80052
Weld
kirk kallhoff
3/2/2015

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	706pm															
MIRU	630pm															
CIRCULATE	729pm	0	805pm	10	0			0			0			0		
Drop Plug		10	807pm	90	10			10			10			10		
805 pm		20	809pm	90	20			20			20			20		
		30	811pm	120	30			30			30			30		
		40	813pm	180	40			40			40			40		
M & P		50	815pm	250	50			50			50			50		
Time	Sacks	60	817pm	300	60			60			60			60		
734 pm	480	70	819pm	370	70			70			70			70		
802 pm stop		80	821pm	400	80			80			80			80		
		90	825pm	390	90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	15%	120			120			120			120			120		
Mixed bbls	85.5	130			130			130			130			130		
Total Sacks	480	140			140			140			140			140		
bbl Returns	24	150			150			150			150			150		
Water Temp																

Notes:

bumped plug at 826 pm 880 psi

floats held

X

Work Performed

X

Title

X

Date

3-2-15

M/D TOTCO 2000 SERIES

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

