



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 2/25/2015
 Invoice # 45133
 API# 05-123-40998
 Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: SKIM 35C-28HZ

County: Weld Consultant: RANDY
 State: Colorado Rig Name & Number: ADVANCED 10
 Distance To Location: 11
 Sec: 21 Units On Location: 4031-3107, 4030-3203
 Twp: 3N Time Requested: 600
 Range: 65W Time Arrived On Location: 430
 Time Left Location: 1200

WELL DATA		Cement Data	
Casing Size OD (in) :	<u>9.625</u>	Cement Name:	<u>BFN III</u>
Casing Weight (lb) :	<u>36.00</u>	Cement Density (lb/gal) :	<u>14.2</u>
Casing Depth (ft.) :	<u>1,212</u>	Cement Yield (cuft) :	<u>1.49</u>
Total Depth (ft) :	<u>1227</u>	Gallons Per Sack:	<u>7.48</u>
Open Hole Diameter (in.) :	<u>13.50</u>	% Excess:	<u>16%</u>
Conductor Length (ft) :	<u>45</u>	Displacement Fluid lb/gal:	<u>8.3</u>
Conductor ID :	<u>15.25</u>	BBL to Pit:	<u>19.0</u>
Shoe Joint Length (ft) :	<u>44</u>	Fluid Ahead (bbls):	<u>30.0</u>
Landing Joint (ft) :	<u>5</u>	H2O Wash Up (bbls):	<u>20.0</u>
Max Rate:	<u>6</u>	Spacer Ahead Makeup	
Max Pressure:	<u>1500</u>	<u>30 BBL WATER W/ DYE IN 2ND 10</u>	

Calculated Results		Displacement: <u>90.72 bbls</u>	
cuft of Shoe	<u>18.97 cuft</u>	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
(Casing ID Squared) X (.005454) X (Shoe Joint ft)		Pressure of cement in annulus	
cuft of Conductor	<u>34.34 cuft</u>	Hydrostatic Pressure: <u>894.23 PSI</u>	
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Pressure of the fluids inside casing	
cuft of Casing	<u>658.86 cuft</u>	Displacement: <u>503.83 psi</u>	
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Shoe Joint: <u>32.24 psi</u>	
Total Slurry Volume	<u>712.17 cuft</u>	Total <u>536.07 psi</u>	
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Differential Pressure: <u>358.16 psi</u>	
bbls of Slurry	<u>126.84 bbls</u>	Collapse PSI: <u>2020.00 psi</u>	
(Total Slurry Volume) X (.1781)		Burst PSI: <u>3520.00 psi</u>	
Sacks Needed	<u>478 sk</u>	Total Water Needed: <u>225.84 bbls</u>	
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)			
Mix Water	<u>85.12 bbls</u>		
(Sacks Needed) X (Gallons Per Sack) ÷ 42			

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**

INVOICE #
LOCATION
FOREMAN
Date

45133
Weld
JASON KELEHER
2/25/2015

Customer
Well Name


Anadarko Petroleum Corporation
SKIM 35C-28HZ

Treatment Report Page 2

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	945															
MIRU	530															
CIRCULATE	1013	0	1047	0	0			0			0			0		
Drop Plug		10	1048	80	10			10			10			10		
1047		20	1051	70	20			20			20			20		
		30	1054	90	30			30			30			30		
		40	1057	130	40			40			40			40		
M & P		50	1059	300	50			50			50			50		
Time	Sacks	60	1100	350	60			60			60			60		
1020-1045	478	70	1102	410	70			70			70			70		
		80	1104	470	80			80			80			80		
		90	1107	400	90			90			90			90		
		100	BUMP	940	100			100			100			100		
		110			110			110			110			110		
% Excess	16%	120			120			120			120			120		
Mixed bbls	85.15	130			130			130			130			130		
Total Sacks	478	140			140			140			140			140		
bbl Returns	19	150			150			150			150			150		
Water Temp	41															

Notes:
 PERFORMED PRESSURE TEST TO 1500 PSI AT 1011, PUMPED 30 BBL WATER WITH DYE IN 2ND 10 AT 1013, MIXED AND PUMPED 478 SKS AT 14.2,
 126.8 BBL AT 1020, SHUT DOWN AT 1045, STARTED DISPLACEMENT AT 1047, PLUG LANDED AT 400 PSI AT 1107 AND PRESSURED UP TO 940, HELD
 FOR 5 MINUTES AND RELEASED TO CHECK FLOATS, GOT .5 BBL BACK, FLOATS HELD.

X 
 Signature

X
 Title

X
 Date

SKIM 35C-28HZ SURFACE

