



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 3/15/2015

Invoice # 80110

API# 05-123-40956

Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: CHEESE 38N-28HZ

County: Weld

State: Colorado

Sec: 28

Twp: 3N

Range: 65W

Consultant: RANDY

Rig Name & Number: ADVANCED 10

Distance To Location: 12

Units On Location: 4031-3107, 4030-3203

Time Requested: 200

Time Arrived On Location: 100

Time Left Location: 800

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,204
Total Depth (ft) : 1220
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: 20%

Displacement Fluid lb/gal: 8.3

BBL to Pit: 15.0

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 18.98 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 685.03 cuft

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

Total Slurry Volume 734.53 cuft

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

bbls of Slurry 130.82 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 493 sk

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

Mix Water 87.80 bbls

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

Displacement: 90.10 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 888.31 PSI

Pressure of the fluids inside casing

Displacement: 500.36 psi

Shoe Joint: 32.25 psi

Total 532.61 psi

Differential Pressure: 355.70 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 227.89 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
CHEESE 38N-28HZ

INVOICE #
LOCATION
FOREMAN
Date

80110
Weld
JASON KELEHER
3/15/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting MIRU CIRCULATE Drop Plug 636 M & P Time 0605-0634 % Excess Mixed bbls Total Sacks bbl Returns Water Temp	Sacks	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
	535															
	200															
	559	0	636	0	0			0			0			0		
		10	638	50	10			10			10			10		
		20	640	50	20			20			20			20		
		30	643	50	30			30			30			30		
		40	646	110	40			40			40			40		
		50	649	160	50			50			50			50		
		60	652	240	60			60			60			60		
	493	70	655	300	70			70			70			70		
		80	658	360	80			80			80			80		
		90	703	370	90			90			90			90		
		100	BUMP	890	100			100			100			100		
		110			110			110			110			110		
	20%	120			120			120			120			120		
	87.8	130			130			130			130			130		
	493	140			140			140			140			140		
	15	150			150			150			150			150		
	50															

Notes:

PERFORMED PRESSURE TEST TO 1500 PSI AT 0557, PUMPED 30 BBL WATER WITH DYE IN 2ND 10 AT 0559, MIXED AND PUMPED 493 SKS AT 14.2, 130.8 BBL AT 0605, SHUT DOWN AT 0634, STARTED DISPLACEMENT AT 0636, PLUG LANDED AT 370 PSI AT 0703 AND PRESSURED UP TO 890, HELD FOR 5 MINUTES AND RELEASED TO CHECK FLOATS, GOT .5 BBL WATER BACK, FLOATS HELD.

X
Signature

X
Title

X
Date

CHEESE 38N-28HZ SURFACE

