



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/19/2014

Invoice # 65001

API# 05-123-3809300

Foreman: Lee Sharp

Customer: Peterson Energy Management

Well Name: Grant Hurt 1G-14H-G268

County: Weld

State: Colorado

Sec: 14

Twp: 2N

Range: 68W

Consultant: IRA COX

Rig Name & Number: PATERSON 326

Distance To Location: 21

Units On Location: 4023-3104 & 4020-3212

Time Requested: 1:30

Time Arrived On Location: 2:30

Time Left Location: 5:15

WELL DATA

Casing Size OD (in.) : 9.625
Casing Weight (lb) : 40.00
Casing Depth (ft.) : 811
Total Depth (ft) : 865
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 39
Landing Joint (ft) : 35

Max Rate:

Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 50%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 0.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

10F-10D-10F

Casing ID

8.835

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 16.63 cuft

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

cuft of Conductor 61.05 cuft

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

cuft of Casing 343.40 cuft

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

Total Slurry Volume 421.08 cuft

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

bbls of Slurry 74.99 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 332 sk

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

Mix Water 46.50 bbls

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

Displacement: 61.19 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 640.37 PSI

Pressure of the fluids inside casing

Displacement: 332.85 psi

Shoe Joint: 30.84 psi

Total 363.69 psi

Differential Pressure: 276.68 psi

Collapse PSI: 2570.00 psi

Burst PSI: 3950.00 psi

Total Water Needed: 157.68 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

Peterson Energy Management
Grant Hurt 1G-14H-G268

INVOICE #
LOCATION
FOREMAN
Date

65001
Weld
Lee Sharp
7/19/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting	3:20	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
MIRU	3:00															
CIRCULATE	3:43	0	4:02	0	0			0			0			0		
Drop Plug		10	4:06	54	10			10			10			10		
4:02		20	4:08	96	20			20			20			20		
		30	4:10	205	30			30			30			30		
		40	4:12	375	40			40			40			40		
M & P		50	4:14	407	50			50			50			50		
Time	Sacks	60	4:18	330	60			60			60			60		
3:46	332	70	4:19	696	70			70			70			70		
		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	52%	120			120			120			120			120		
Mixed bbls	47	130			130			130			130			130		
Total Sacks	335	140			140			140			140			140		
bbl Returns	19	150			150			150			150			150		
Water Temp	60															

Notes:

JOB WENT WELL PLUG LANDED ON CALCULATED LANDED AT 696; PSI TEST 1504 FINAL PSI READING

X Lee Sharp
Work Preformed

X Co Rep
Title

X 7-19-14
Date