



Bison Oil Well Cementing
1547 Gaylord Street
Denver, CO 80206

FIELD INVOICE #

80551

FIELD INVOICE

WELL NO. AND FARM		COUNTY	STATE	DATE	Contractor
wilson ranch 5n-27hz		Weld	Colorado	10/26/2015	noble 2
CHARGE TO		WELL LOCATION			
Anadarko Petroleum Corporation		Section	TWP	RANGE	
PO Box 4995		26	4n	68w	
The Woodlands, TX 77387		DELIVERED TO		LOCATION 1	CODE
		I-25-38		shop	
		SHIPPED VIA		LOCATION 2	CODE
		4029-3106/4035-3203		I-25 - 38	
		TYPE AND PURPOSE OF JOB		LOCATION 3	CODE
		SURFACE		shop	
				WELL TYPE	CODE
				gas	
ITEM	DESCRIPTION	QTY.	MEAS.	UNIT PRICE	AMOUNT
PUMP CHARGE					
SURFACE		1	ea		
MILLEAGE CHARGE					
Pickup		60	mile		
Truck/Equipment		60	mile		
Truck/Equipment		60	mile		
Truck/Equipment		60	mile		
CEMENT CHARGE:					
BFN III		710	sacks		
ADDITIVES CHARGE:					
KCL		3	qt		
Liquid Dye Rhodamine		15	oz		
Sugar			lbs		
FLOAT EQUIPMENT:					
OTHER CHARGES:					
DATA ACQUISITION FEE		1	ea		
Containment		1	ea		

WILSON RANCH 5N-27HZ NOBLE 2
FRANK KINNEY USER ID: CU0741
CONSULTANT: *Chita*
AFE# 2097550 DATE: 10-26-15
GL CODE: 800 12010

Customer or Agent

It be made. Computed at a single monthly rate of 1 1/2% which is equal

SUB TOTAL
TAX 2.90%
TOTAL

SUBJECT TO CORRECTION

Bison Oil Well Cementing, Inc. Representative

Customers hereby acknowledges and specifically agrees to the terms and conditions on this work order, including, without limitation, the provisions on the riverside hereof which include the release and indemnity.



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/26/2015

Invoice # 80551

API#

Foreman: Kirk Kallhoff

Customer: Anadarko Petroleum Corporation

Well Name: wilson ranch 5n-27hz

County: Weld

State: Colorado

Sec: 26

Twp: 4n

Range: 68w

Consultant: sean

Rig Name & Number: noble 2

Distance To Location: 30

Units On Location: 4029-3106/4035-3203

Time Requested: 330 pm

Time Arrived On Location: 300 pm

Time Left Location: 8:00 pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,834
Total Depth (ft) : 1844
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 40
Conductor ID : 15.25
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 10

Max Rate: 8

Max Pressure: 2500

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 18.66 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 1008.30 cuft

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

Total Slurry Volume 1057.49 cuft

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

bbls of Slurry 188.34 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 710 sk

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

Mix Water 126.40 bbls

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

Displacement: 139.23 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 1352.94 PSI

Pressure of the fluids inside casing

Displacement: 772.25 psi

Shoe Joint: 31.72 psi

Total 803.97 psi

Differential Pressure: 548.98 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 305.63 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
wilson ranch 5n-27hz

INVOICE #

80551

LOCATION

Weld

FOREMAN

Kirk Kallhoff

Date _____

10/26/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

[illegible]

1x

Chen

Work Performed

X

Title

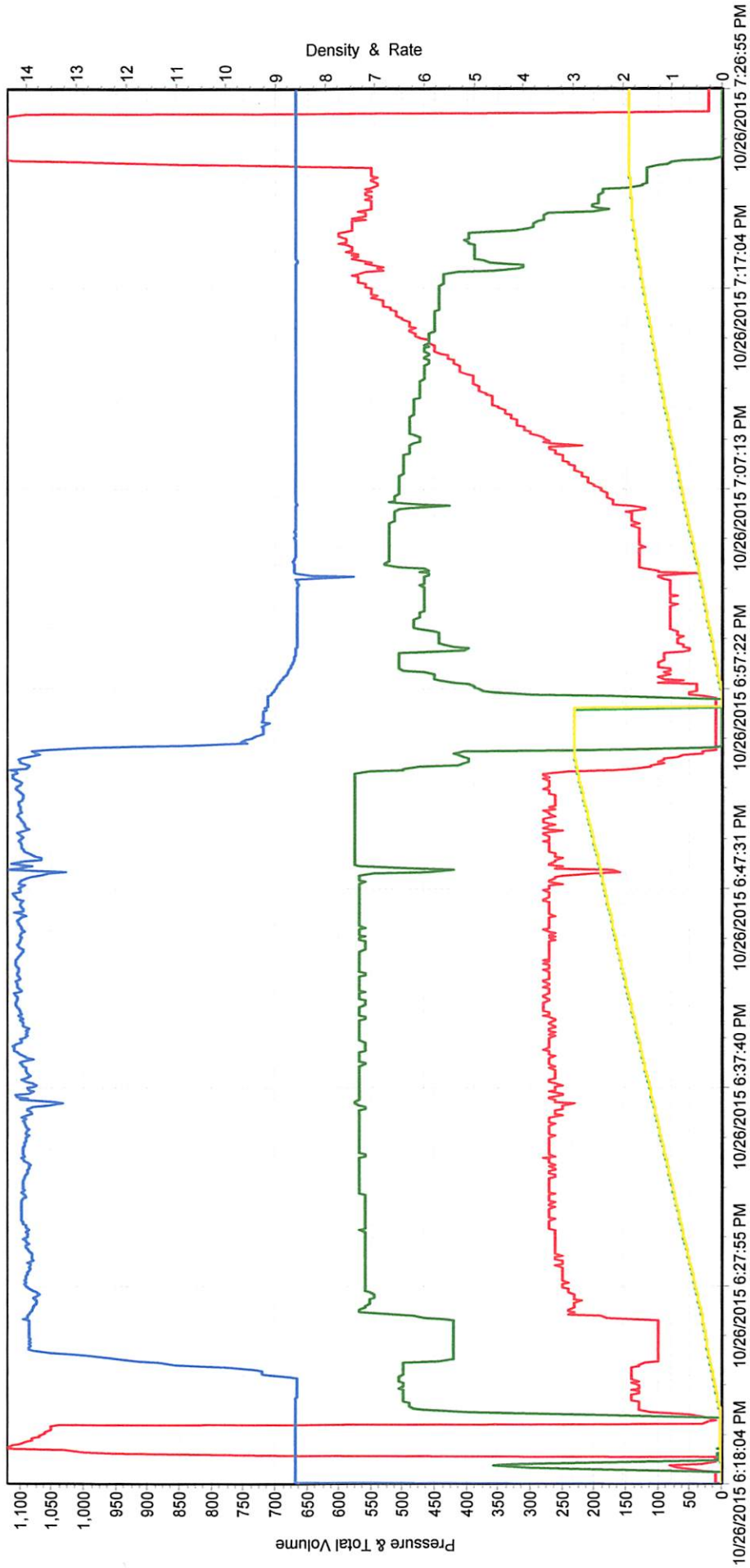
3

Date: _____

10-26-15

M/D TOTCO 2000 SERIES

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



Release and Indemnification

Customer acknowledges and assumes the risks associated with oil well drilling, cementing and acidizing, including, without limitation, destabilization, loss of production, contamination, fracturing and loss of well control. Customer agrees to release Bison Oil Well Cementing, Inc., Bison Energy Services, Inc., its agents, employees and assigns, from any and all liability for any and all damages whatsoever to property of any kind owned by, in the possession of, or leased by customer and those persons or entities customer has the ability to bind by contract. Customer also agrees to indemnify and hold harmless Bison Oil Well Cementing, Inc., Bison Energy Services, Inc., its agents, employees and assigns, from and against any and all liability, claims, costs, expenses, attorneys fees and damages whatsoever for claims, costs, expenses, attorneys fees and damages whatsoever for personal injury, illness, death, property damage and loss resulting from: loss or reduction of production, destabilization loss of oil well control, failure of or contamination by acid stimulation, hydraulic fracturing, cementing, pumping services, incompatible fluid or other processes to stimulate, complete or end production, and/or any other condition. Customer's release, indemnity and hold harmless obligation shall apply even if the liability and claims are caused by the sole, concurrent, active or passive negligence, fault, or strict liability of Bison Oil Well Cementing, Inc. and/or Bison Energy Services, Inc. or any defect in the data, products, supplies, materials or equipment furnished by Bison Oil Well Cementing, Inc. whether in the design, manufacturing, maintenance, or marketing thereof or from failure to warn of such defect. In the event that any portion of this release and indemnity is found by a court of competent jurisdiction to be inoperable or unenforceable, the remaining portions and provisions shall apply, and customer agrees that the contract price herein shall be the limit of Bison Oil Well Cementing, Inc.'s liability, if any.