



BISON

Bison Oil Well Cementing Inc.
Suite 102
Denver, CO 80202
303-296-3010

Invoice

Date	Invoice #
2/9/2013	11673

Bill To
Noble Energy Inc. Attn: Accounting 1625 Broadway Ste 2000 Denver, CO 80202

Location	Well Name & No.	Terms	Job Type		
Weld, CO	Knaub PCC03-67-111N	Net 30	Surface		
Item	Description	Qty	U/M	Rate	Amount
Pump surface	PUMP Charge-surface pipe	1			
Discount 15%	Discount 15%				
MILEAGE	Mileage charge	360			
Discount 15%	Discount 15%				
Data Acquisition ...	Data Acquisition Charge	1			
Discount 15%	Discount 15%				
Type III Cement	Type III Cement	350	lb		
Discount 15%	Discount 15%				
KCL Mud Flush	(BHS 117)	4	qt		
Discount 15%	Discount 15%				
Dye - 4880	Dye (Hot Pink 4880)	16	oz		
Discount 15%	Discount 15%				

Please Remit Payment To:

Bison Oil Well Cementing, Inc.
P.O. Box 29671
Thornton, CO 80229

Subtotal	\$7,571.50
Sales Tax (2.5%)	\$189.29
Total	\$7,760.79
Balance Due	\$7,760.79



1738 Wynkoop St. Ste. 102
Denver, Colorado 80202
Phone: 303-298-3010
Fax: 303-298-0100
E-mail: blanca@denver.com

DOI: 10.1002/anie.201000000

1999

Elaine, blsnoil1@a

eqwestoffice.net

REF. INVOICE # 11673

LOCATION H 50141

FOREMAN Mike

TREATMENT REPORT

DATE 3-9-13		WELL NAME KNAUB R-604.67 HW		TREATMENT REPORT				REF. INVOICE # 11673	
CHARGE TO Noble		SECTION 4		TWP 4N		RGE 65W		LOCATION H 50141	
MAILING ADDRESS		OWNER		COUNTY Weld		FORMATION		FOREMAN Mike	
CITY		OPERATOR Noble		CONTRACTOR HLP 321		DISTANCE TO LOCATION			
STATE ZIP CODE		TIME ARRIVED ON LOCATION 9:10 Am		TIME LEFT LOCATION 3:10 Am		WELL DATA			

WELL DATA				PRESSURE LIMITATIONS																											
HOLE SIZE	13 3/4	TUBING SIZE	PERFORATIONS			THEORETICAL	INSTRUCTED																								
TOTAL DEPTH	648	TUBING DEPTH	SHOTS/FT	SURFACE PIPE ANNULUS LONG																											
BTD 596.37		TUBING WEIGHT	OPEN HOLE	STRING																											
CASING SIZE	9 5/8	TUBING CONDITION		TUBING																											
CASING DEPTH	641		TREATMENT VIA	TYPE OF TREATMENT		TREATMENT RATE																									
CASING WEIGHT	36#	PACKER DEPTH		<input checked="" type="checkbox"/> SURFACE PIPE		BREAKDOWN BPM																									
CASING CONDITION	Good			<input type="checkbox"/> PRODUCTION CASING		INITIAL BPM																									
				<input type="checkbox"/> SQUEEZE CEMENT		FINAL BPM																									
				<input type="checkbox"/> ACID BREAKDOWN		MINIMUM BPM																									
				<input type="checkbox"/> ACID STIMULATION		MAXIMUM BPM																									
				<input type="checkbox"/> ACID SPOTTING		AVERAGE BPM																									
				<input type="checkbox"/> MISC PUMP																											
				<input type="checkbox"/> OTHER		HYD HHP = RATE X PRESSURE X 40.8																									
<table border="1"> <thead> <tr> <th colspan="4">PRESSURE SUMMARY</th> </tr> </thead> <tbody> <tr> <td>BREAKDOWN or CIRCULATING</td> <td>psi</td> <td>AVERAGE</td> <td>psi</td> </tr> <tr> <td>INAL DISPLACEMENT</td> <td>psi</td> <td>ISIP</td> <td>psi</td> </tr> <tr> <td>NNULUS</td> <td>psi</td> <td>5 MIN SIP</td> <td>psi</td> </tr> <tr> <td>AXIMUM</td> <td>psi</td> <td>15 MIN SIP</td> <td>psi</td> </tr> <tr> <td>MINIMUM</td> <td>psi</td> <td></td> <td></td> </tr> </tbody> </table>								PRESSURE SUMMARY				BREAKDOWN or CIRCULATING	psi	AVERAGE	psi	INAL DISPLACEMENT	psi	ISIP	psi	NNULUS	psi	5 MIN SIP	psi	AXIMUM	psi	15 MIN SIP	psi	MINIMUM	psi		
PRESSURE SUMMARY																															
BREAKDOWN or CIRCULATING	psi	AVERAGE	psi																												
INAL DISPLACEMENT	psi	ISIP	psi																												
NNULUS	psi	5 MIN SIP	psi																												
AXIMUM	psi	15 MIN SIP	psi																												
MINIMUM	psi																														

INSTRUCTIONS PRIOR TO JOB Saltwater, Rig up - Post Test to 500 mud flux 40 BBLs head H₂O KCL mix
10 Dye mix + Pump 474 Skt Cement, BFW @ 3% BFW-1, (30% Excess) at 1.27 grad at 15.2
until Compaction stops use, Drop Plug, Displace 46 BBLs H₂O Drop Plug, WMS2 up Rig
down
Ruled with 200 Skt Cement 10 gal KCL, 1602 Dye 100 lbs Sugar.

3 SUMMARY

DESCRIPTION OF JOB EVENTS	SPACER	Cement START	Cement STOP	DROP Plug
SALT GROUTING				
	11:50 AM	12:40 PM	12:52 PM	1:23 PM
			POST Displace RT	127 PM
Cement START	12:52 PM		1:31 PM	10 160 PSI
Cement STOP	1:23 PM	Bump Plug 650 PSI OVER 133	20 230 PSI	
		1.42.	1:57 136 PM	30 310 PSI
SKS 350 Cement used			1:38 PM	40 320 PSI
Excess 15 %			140 PM	46 4000 PSI
Slurry 79.19			140 PM BP	1000 PSI
				Flow 11/4 to 1/2