BISON OIL WELL CEMENTING, INC.

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REF. INVOICE # 11431
LOCATION CR 38+29
FOREMAN Pat Nowak

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY	FORMATION
3-5-12	KERN LO4-20D	4	3N	66W	WELD	

CHARGE TO NOBLE	OWNER
MAILING ADDRESS	OPERATOR NOBLE
CITY	CONTRACTOR ENSIGN 136
STATE ZIP CODE	DISTANCE TO LOCATION
TIME ARRIVED ON LOCATION 1:00AM	TIME LEFT LOCATION 6:00 AM

WELL DATA

HOLE SIZE 12¼	TUBING SIZE	PERFORATIONS
TOTAL DEPTH 715	TUBING DEPTH	SHOTS/FT
PBTD 660	TUBING WEIGHT	OPEN HOLE
CASING SIZE 8 5/8	TUBING CONDITION	
CASING DEPTH 710		TREATMENT VIA
CASING WEIGHT 24#	PACKER DEPTH	
CASING CONDITION GOOD		

PRESSURE LIMITATIONS

	THEORETICAL	INSTRUCTED
SURFACE PIPE ANNULUS LONG		
STRING		
TUBING		

PRESSURE SUMMARY

BREAKDOWN or CIRCULATING	psi	AVERAGE	psi
FINAL DISPLACEMENT	psi	ISIP	psi
ANNULUS	psi	5 MIN SIP	psi
MAXIMUM	psi	15 MIN SIP	psi
MINIMUM	psi		

TYPE OF TREATMENT	TREATMENT RATE
[X] SURFACE PIPE	BREAKDOWN BPM
[ ] PRODUCTION CASING	INITIAL BPM
[ ] SQEEZE CEMENT	FINAL BPM
[ ] ACID BREAKDOWN	MINIMUM BPM
[ ] ACID STIMULATION	MAXIMUM BPM
[ ] ACID SPOTTING	AVERAGE BPM
[ ] MISC PUMP	
[ ] OTHER	HYD HHP = RATE X PRESSURE X 40.8

INSTRUCTIONS PRIOR TO JOB Rig up Safety meeting, ~~CHC HOH~~ Pressure man CIRC HOBBLS H2O with KCL Dye in 2nd 10 mix & Pump Till Dye is seen then Pump Two other at 15.2# 137 YIELD Don't go over 30% EXCESS without talking to co-man, Drop Plug Displace 14 BBLS H2O Bump Plug 150 psi over Lift psi wait 5 min, Release psi, Wash up Rig Down

Wellcare 700 SKS 32 oz DYE 8 QTS KCL

JOB SUMMARY
DESCRIPTION OF JOB EVENTS Safety 3:54 CIRC 4:35 mix 4:43 Drop Plug 4:59
Displace 5:07

10	504	180 PSI 5 BBLS min
20	506	300 PSI 5 BBLS min
30	508	430 PSI 5 BBL min
40	5:17	280 PSI 1 BBL min

Bump Plug 420 PSI at 5:17 AM float collar held
Used 160% EXCESS = 271 SKS = 61 BBLS Slurry
Avg Cement 4.3 BBLS per min
Left with 429 SKS 16 oz DYE 4 QTS KCL

7 BBLS to Pit

AUTHORIZATION TO PROCEED — TITLE — DATE 3-5-12

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