

BISON OIL WELL CEMENTING, INC.



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REF. INVOICE # 97141

LOCATION cr 46-31

FOREMAN Kirk Kallho FF
mike R LR Jessie

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY	FORMATION
3-2-11	Five Rivers USX K09-08D	10	4N	66W	Weld	

CHARGE TO Noble	OWNER
MAILING ADDRESS	OPERATOR Noble
CITY	CONTRACTOR Ensign SS
STATE ZIP CODE	DISTANCE TO LOCATION
TIME ARRIVED ON LOCATION 1:00 Pm	TIME LEFT LOCATION 9:00pm

WELL DATA

PRESSURE LIMITATIONS

HOLE SIZE 12 1/4	TUBING SIZE	PERFORATIONS	THEORETICAL	INSTRUCTED
TOTAL DEPTH 578	TUBING DEPTH	SHOTS/FT	SURFACE PIPE ANNULUS LONG	
PBTD 526.04	TUBING WEIGHT	OPEN HOLE	STRING	
CASING SIZE 8 5/8	TUBING CONDITION		TUBING	

CASING DEPTH	571.47	TREATMENT VIA	TYPE OF TREATMENT		TREATMENT RATE
CASING WEIGHT	24 lb	PACKER DEPTH	1 SURFACE PIPE		BREAKDOWN BPM
CASING CONDITION	good		1 PRODUCTION CASING		INITIAL BPM

PRESSURE SUMMARY

BREAKDOWN or CIRCULATING psi	AVERAGE psi	1 SQUEEZE CEMENT	FINAL BPM
FINAL DISPLACEMENT psi	ISIP psi	1 ACID BREAKDOWN	MINIMUM BPM
ANNULUS psi	5 MIN SIP psi	1 ACID STIMULATION	MAXIMUM BPM
MAXIMUM psi	15 MIN SIP psi	1 ACID SPOTTING	AVERAGE BPM
MINIMUM psi		1 MISC PUMP	
		1 OTHER	HYD HHV = RATE X PRESSURE X 40 B

INSTRUCTIONS PRIOR TO JOB Big up, safety meeting, Psit test, circ 30 BBLs Kcl H2O, 2nd 10w/Dye, mix F Pump 245 SKs cement at 30% Excess at 1.27 yield at 15.2 lbs or until comm stops us, Release Plug, Displace 33.5 BBLs H2O, Bump Plug at 150 psi over LIFT psi, wait 5 min Release Psi, wash up, Big Down

Arrived w/ 650 SKs cement 4 gellans Kcl 16oz Dye 1-H2O test OK
55.2 BBLs slurry

JOB SUMMARY

DESCRIPTION OF JOB EVENTS safety meeting 7:28pm circ 7:42pm cement 7:51pm
Drop Plug 8:24pm Displace 8:24pm

10 BBLs At 5.5 BBLs/m 8:27pm 310psi used 165% Excess
20 BBLs At 5.5 BBLs/m 8:29pm 370psi used 500 SKs cement
30 BBLs At 2.5 BBLs/m 8:32pm 230psi 112.5 BBLs slurry
33.5 BBLs At 1.0 BBLs/m 8:35pm 190psi
Bump Plug 8:35pm 360psi

LFT w/ 150 SKs cement 3 gal 1st Kcl 6oz Dye BBLs Back 36

End Bond

AUTHORIZATION TO PROCEED

TITLE

3-2-11

DATE

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