

# ORIGINAL

SIDE ONE

STATE CORPORATION COMMISSION OF KANSAS  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
ACO-1 WELL HISTORY  
DESCRIPTION OF WELL AND LEASE

Operator: License # 04782

Name: Ensign Operating Co.

Address 621 17th St., Suite 1800

City/State/Zip Denver, Colorado 80293

Purchaser: Mobil Natural Gas (WOPL)

Operator Contact Person: Jerry C. Simmons

Phone (303) 293-9999

Contractor: Name: Bredeco

License: 5147

Wellsite Geologist: Ed Greives

Designate Type of Completion

New Well  Re-Entry  Workover

Oil  SWD  Temp. Abd.  
 Gas  Inj  Delayed Comp.  
 Dry  Other (Core, Water Supply, etc.)

If OWO: old well info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Comp. Date \_\_\_\_\_ Old Total Depth \_\_\_\_\_

Drilling Method:

Mud Rotary  Air Rotary  Cable

5/19/90 6/3/90 8/14/90 WOPL  
Spud Date Date Reached TD Completion Date

API NO. 15- 189-21,414-00-00

County Stevens

NE NW Sec. 22 Twp. 34S Rge. 36  East  West

4620' Ft. North from Southeast Corner of Section

3300' Ft. West from Southeast Corner of Section  
(NOTE: Locate well in section plat below.)

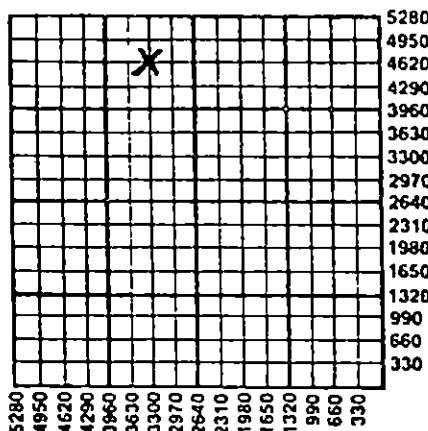
Lease Name Wells Well # 1-22

Field Name Unknown

Producing Formation Morrow

Elevation: Ground 3078' KB 3090'

Total Depth 6800' P8TD 6742'



Amount of Surface Pipe Set and Cemented at 1787' Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set \_\_\_\_\_ Feet

If Alternate-II completion, cement circulated from \_\_\_\_\_

feet depth to \_\_\_\_\_ w/ \_\_\_\_\_ sx rmt.

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form. See rule 82-3-107 for confidentiality in excess of 12 months. One copy of all wireline logs and drillers time log shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP 4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Jerry C. Simmons

Title Production Operations Mgr. Date 12/19/90

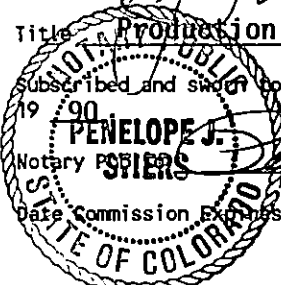
Subscribed and sworn to before me this 19 day of December

19 90  
Notary Public Penelope J. Steers

Date Commission Expires My Commission expires October 21, 1991

621 17th St. Suite 1800  
Denver, Colorado 80293

DEC 26 1990 12-26-90



K.C.C. OFFICE USE ONLY

F  Letter of Confidentiality Attached  
C  Wireline Log Received  
C  Drillers Timelog Received

Distribution

KCC  SWD/Rep  NGPA  
 KGS  Plug  Other (Specify)



# ORIGINAL

## FORMATION TOPS

Ensign  
#1-22 Wells  
C NE NW Sec. 22-34S-36W  
KB 3091'

	<u>Sample</u>	<u>Log</u>
Stone Corral	1730	1728 + 1363
Base Stone Corral	1799	1795 + 1296
Wellington	2295	2291 + 800
Herington	2679	2676 + 415
Krider	2741	2738 + 353
Winfield	2793	2792 + 299
Towanda	2861	2852 + 239
Ft. Riley	2922	2917 + 174
Wreford	3012	3006 + 85
Council Grove	3111	3110 - 19
Wabaunsee	3446	3442 - 351
Heebner	4292	4288 - 1197
Toronto	4317	4310 - 1219
Lansing/KC	4363	4367 - 1276
Marmaton	5156	5152 - 2061
Atoka	5490	5487 - 2396
Morrow Fm.	5914	5910 - 2819
Lower Mow Sd Zn	6238	6227 - 3136
Chester	6320	6316 - 3225
St. Genevieve	6559	6539 - 3448
St. Louis	6612	6614 - 3523
TD	6800	6795

RECEIVED  
STATE OF MISSOURI  
COMMISSION

DEC 26 1939

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

## Drill-Stem Test Data

Well Name & No. <u>WELLS #1-22</u>	Test No. <u>1</u>	Date <u>5/30/90</u>
Company <u>ENSIGN OPERATING COMPANY</u>		Zone Tested <u>MORROW SAND</u>
Address <u>621 17th SW 1800 DENVER CO 80293</u>		Elevation <u>3091 KB</u>
Co. Rep./Geo. <u>MR ED GRIEVES</u>	Cont. <u>BEREDCO RIG #1</u>	Est. Ft. of Pay <u>10</u>
Location: Sec. <u>22</u>	Twp. <u>34S</u>	Rge. <u>36W</u>
		Co. <u>STEVENS</u> State <u>KANSAS</u>

Interval Tested <u>6245-6345</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>100</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>6240</u>	Hole Size — 77/8" _____ Rubber Size — 63/4" _____
Bottom Packer Depth <u>6245</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>0</u>
Total Depth <u>6345</u>	Drill Collar — 2.25 Ft. Run <u>535</u>
Mud Wt. <u>9.1</u> lb/gal.	Viscosity <u>45</u> Filtrate <u>6.8</u>
Tool Open @ <u>2:06 PM</u> Initial Blow <u>VERY WEAK BLOW AT SURFACE DYING IN 7</u>	
<u>MINUTE-TOOL SLID 20' TO BOTTOM</u>	
Final Blow <u>VERY WEAK BLOW @ SURFACE THROUGHOUT</u>	

Recovery — Total Feet <u>1</u>	Flush Tool? _____
Rec. <u>1</u> Feet of <u>DRILLING MUD-MIS RUN-PLUGGED OFF</u>	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
BHT <u>0</u> °F Gravity _____ °API @ <u>0</u> °F Corrected Gravity <u>0</u> °API	

RW _____ @ _____ °F	Chlorides _____ ppm	Recovery _____	Chlorides <u>800</u> ppm	System <u>4575</u>
(A) Initial Hydrostatic Mud _____	PSI	AK1 Recorder No. <u>13615</u>	Range _____	
(B) First Initial Flow Pressure _____	PSI	@ (depth) <u>6247</u>	w/Clock No. <u>27501</u>	
(C) First Final Flow Pressure _____	PSI	AK1 Recorder No. <u>10248</u>	Range _____	<u>4400</u>
(D) Initial Shut-in Pressure _____	PSI	@ (depth) <u>6342</u>	w/Clock No. _____	<u>27567</u>
(E) Second Initial Flow Pressure _____	PSI	AK1 Recorder No. <u>0</u>	Range _____	<u>0</u>
(F) Second Final Flow Pressure _____	PSI	@ (depth) <u>0</u>	w/Clock No. _____	<u>0</u>
(G) Final Shut-in Pressure _____	PSI	Initial Opening <u>30</u>		
(H) Final Hydrostatic Mud _____	PSI	Initial Shut-in <u>60</u>		
		Final Flow <u>60</u>	STATE _____	
		Final Shut-in <u>120</u>		

DEC 26 1990

ROGER SELLS

Our Representative \_\_\_\_\_

TOTAL PRICE \$ \_\_\_\_\_

# TRILOBITE TESTING COMPANY ORIGINAL

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name & No. <u>WELLS #1-22</u>		Test No. <u>2</u>	Date <u>5/31/90</u>
Company <u>ENSIGN OPERATING COMPANY</u>		Zone Tested <u>MORROW</u>	
Address <u>621 17TH #1800 DENVER CO 80293</u>		Elevation <u>3091</u>	
Co. Rep./Geo. <u>ED GRIEVES</u>	Cont. <u>BEREDCO #1</u>	Est. Ft. of Pay <u>10</u>	
Location: Sec. <u>22</u>	Twp. <u>34S</u>	Rge. <u>36W</u>	Co. <u>STEVENS</u> State <u>KS</u>

Interval Tested <u>6247-6345</u>	Drill Pipe Size <u>4.5 XH</u>
Anchor Length <u>98</u>	Top Choke — 1" <u>        </u> Bottom Choke — 3/4" <u>        </u>
Top Packer Depth <u>6242</u>	Hole Size — 7 7/8" <u>        </u> Rubber Size — 6 3/4" <u>        </u>
Bottom Packer Depth <u>6247</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>0</u>
Total Depth <u>6345</u>	Drill Collar — 2.25 Ft. Run <u>535</u>
Mud.Wt. <u>9.1</u> lb/gal.	Viscosity <u>63</u> Filtrate <u>9.8</u>
Tool Open @ <u>7:41 AM</u> Initial Blow <u>FAIR BLOW BUILDING TO 8"</u>	
<u>NO BLOWBACK ON SHUTIN</u>	
Final Blow <u>WEAK SURFACE BLOW BUILDING TO 4"</u>	
<u>NO BLOWBACK ON SHUTIN</u>	
Recovery — Total Feet <u>90</u>	Flush Tool? <u>NO</u>
Rec. <u>90</u> Feet of <u>MUD</u>	
Rec. <u>0</u> Feet of <u>        </u>	
Rec. <u>0</u> Feet of <u>        </u>	
Rec. <u>0</u> Feet of <u>        </u>	
Rec. <u>0</u> Feet of <u>        </u>	
BHT <u>156</u> °F Gravity <u>        </u> °API @ <u>0</u> °F Corrected Gravity <u>0</u> °API	
RW <u>        </u> @ <u>        </u> °F Chlorides <u>        </u> ppm Recovery Chlorides <u>1100</u> ppm System	
(A) Initial Hydrostatic Mud <u>2971.3</u> PSI Ak1 Recorder No. <u>13615</u> Range <u>4575</u>	
(B) First Initial Flow Pressure <u>73.6</u> PSI @ (depth) <u>6249</u> w/Clock No. <u>27501</u>	
(C) First Final Flow Pressure <u>73.6</u> PSI Ak1 Recorder No. <u>10248</u> Range <u>4400</u>	
(D) Initial Shut-In Pressure <u>182.4</u> PSI @ (depth) <u>6342</u> w/Clock No. <u>27567</u>	
(E) Second Initial Flow Pressure <u>75.6</u> PSI Ak1 Recorder No. <u>0</u> Range <u>0</u>	
(F) Second Final Flow Pressure <u>75.6</u> PSI @ (depth) <u>0</u> w/Clock No. <u>0</u>	
(G) Final Shut-In Pressure <u>184.8</u> PSI Initial Opening <u>30</u>	
(H) Final Hydrostatic Mud <u>2932.3</u> PSI Initial Shut-In <u>60</u>	
	Final Flow <u>60</u>
	Final Shut-In <u>120</u>

RECORDED  
DEC 26 1990

ROGER SELLS

800

Our Representative \_\_\_\_\_

TOTAL PRICE \$ \_\_\_\_\_

# TRILOBITE TESTING COMPANY ORIGINAL

P.O. Box 362 • Hays, Kansas 67601

## Drill-Stem Test Data

Well Name & No. <u>WELLS #1-22</u>	Test No. <u>3</u>	Date <u>6/1/90</u>	
Company <u>ENSIGN OPERATING COMPANY</u>	Zone Tested <u>CHESTER SAND</u>		
Address <u>621 17th SWT 1800 DENVER CO 80293</u>	Elevation <u>3091</u>		
Co. Rep./Geo. <u>MR ED GRIEVES</u>	Cont. <u>BEREDCO RIG #1</u>	Est. Ft. of Pay <u>9</u>	
Location: Sec. <u>22</u>	Twp. <u>34S</u>	Rge. <u>36W</u>	Co. <u>STEVENS</u> State <u>KANSAS</u>

Interval Tested <u>6461-6508</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>47</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>6456</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>6461</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>6508</u>	Drill Collar — 2.25 Ft. Run <u>623.41</u>
Mud Wt. <u>9.1</u> lb/gal.	Viscosity <u>60</u> Filtrate <u>6.2</u>
Tool Open @ <u>5:40 PM</u>	Initial Blow <u>GOOD BLOW TO BOTTOM OF BUCKET IMMEDIATELY</u>
	<u>BLD 2" 5 MIN-BLOW BACK TO BOTTOM IN 10 MIN ON SHUT IN</u>
Final Blow <u>GOOD BLOW TO BOTTOM IMMEDIATELY-GAS TO SURFACE IN</u>	
	<u>18 MIN-STRONG BLOW BACK ON SHUT IN -DECREASING TO WEAK</u>

Recovery — Total Feet <u>90</u>	Flush Tool? _____
Rec. <u>90</u> Feet of <u>PIT MUD-10% GAS /90%MUD</u>	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	

BHT <u>146</u> °F	Gravty _____ °API @ _____ °F	Corrected Gravty <u>0</u> °API
RW _____ @ _____ °F	Chlorides _____ ppm Recovery	Chlorides <u>1100</u> ppm System
(A) Initial Hydrostatic Mud <u>3133.5</u> PSI	AK1 Recorder No. <u>136915</u>	Range <u>4575</u>
(B) First Initial Flow Pressure <u>98.9</u> PSI	@ (depth) <u>6463</u>	w/Clock No. <u>27501</u>
(C) First Final Flow Pressure <u>79.7</u> PSI	AK1 Recorder No. <u>10248</u>	Range <u>4400</u>
(D) Initial Shut-In Pressure <u>692.8</u> PSI	@ (depth) <u>6505</u>	w/Clock No. <u>27567</u>
(E) Second Initial Flow Pressure <u>96.5</u> PSI	AK1 Recorder No. <u>0</u>	Range <u>0</u>
(F) Second Final Flow Pressure <u>48.4</u> PSI	@ (depth) <u>0</u>	w/Clock No. <u>0</u>
(G) Final Shut-In Pressure <u>1080.9</u> PSI	Initial Opening <u>30</u>	
(H) Final Hydrostatic Mud <u>2932.2</u> PSI	Initial Shut-In <u>60</u>	
	Final Flow <u>60</u>	
	Final Shut-In <u>120</u>	

DEC 26 1990

MR ROGER SELLS

800

Our Representative \_\_\_\_\_

TOTAL PRICE \$ \_\_\_\_\_



REMIT TO:  
 P.O. BOX 951046  
 DALLAS, TX 75395-1046

INVOICE

HALLIBURTON SERVICES

A Halliburton Company

RECEIVED  
 JUN 15 1990

WELL LEASE NO./PLANT NAME		WELL/PLANT LOCATION		INVOICE NO.	DATE
WELLS 1-22		STEVENS		947113	06/04/1990
SERVICE LOCATION		CONTRACTOR		WELL/PLANT OWNER	
LIBERAL		BEREXCO #1		SAME	
ACCT. NO.		CUSTOMER AGENT		VENDOR NO.	
273943		V W MCKNAB II			
CUSTOMER P.O. NUMBER		SHIPPED VIA		FILE NO.	
		COMPANY TRUCK		96289	

DIRECT CORRESPONDENCE TO:  
 ENSIGN OPERATING COMPANY  
 P O BOX 937  
 GARDEN CITY, KS 67846

SUITE 600  
 COLORADO DERBY BUILDING  
 WICHITA, KS 67202-0000

5991 3 663  
 957-070 90D043

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
PRICING AREA - MID CONTINENT					
000-117	MILEAGE	12	MI	2.35	28.20
		1	UNT		
001-016	CEMENTING CASING	6786	FT	1,550.00	1,550.00
		1	UNT		
030-019	CEMENTING PLUG 5W, PLASTIC BOT	4.5	IN	53.00	53.00 *
		1	EA		
030-018	CEMENTING PLUG 5W, PLASTIC TOP	4.5	IN	45.00	45.00 *
		1	EA		
4A	FLOAT COLLAR 4-1/2" 8RD SS II	1	EA	198.00	198.00 *
836.00100					
5A	FLOAT SHOE 4-1/2" 8RD SS II	1	EA	168.00	168.00 *
837.00100					
50	FLUIDMASTER CENTRALIZER 4 1/2"	12	EA	42.00	504.00 *
807.93504					
350	HALLIBURTON WELD-A	1	LB	11.00	11.00 *
890.10802					
018-317	SUPER FLUSH	18	SK	74.00	1,332.00
504-043	PREMIUM CEMENT	350	SK	6.85	2,397.50 *
507-775	HALAD-322	230	LB	5.75	1,322.50 *
500-959	SUPER CBL	82	LB	21.50	1,763.00 *
508-002	POTASSIUM CHLORIDE	400	LB	.25	100.00 *
500-207	BULK SERVICE CHARGE	350	CFT	1.10	385.00 *
500-306	MILEAGE CMTG MAT DEL OR RETURN	252.090	TMI	.75	189.07 *
INVOICE SUBTOTAL					10,046.27
DISCOUNT-(BID)					2,009.25-
INVOICE BID AMOUNT					8,037.02
*-KANSAS STATE SALES TAX					242.63
*-SEWARD COUNTY SALES TAX					57.07
INVOICE TOTAL - PLEASE PAY THIS AMOUNT					\$8,336.72

PAID  
 JUN 12 1990

6/15/90  
 7070

TERMS INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE. UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED. CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO