

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name GREEN ACRE FARMS #1-23 Test No. 1 Date 5/20/94
Company ENSIGN OPERATING COMPANY Zone MORROW
Address 621 17th ST #1800 DENVER CO 80293 Elevation 3010
Co. Rep./Geo. DUANE MOREDOCK Cont. ALLEN DRLG RIG #2 Est. Ft. of Pay _____
Location: Sec. 23 Twp. 23S Rge. 35W Co. KEARNEY State KS

Interval Tested 4690-4808
Anchor Length 118
Top Packer Depth 4685
Bottom Packer Depth 4690
Total Depth 4808

Drill Pipe Size 4.5" XH
Wt. Pipe I.D. - 2.7 Ft. Run _____
Drill Collar - 2.25 Ft. Run 207
Mud Wt. 9.0 lb/Gal.
Viscosity 44 Filtrate 8.8

Tool Open @ 1:40 PM Initial Blow WEAK SURFACE BLOW BUILT TO 2"
ISI: NO BLOW BACK
Final Blow WEAK SURFACE RETURN BUILT TO 4"
FSI: NO BLOW BACK

Recovery - Total Feet 150 Flush Tool? NO

Rec. 150 Feet of MUD OIL & GAS EMULLSION 15%GAS/15%OIL/70%MUD
Rec. _____ Feet of CENTRIFUSIED 30 MINUTES
Rec. _____ Feet of WOULD NOT BREAK DOWN
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 120 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3900 ppm System

(A) Initial Hydrostatic Mud 2279.6 PSI AK1 Recorder No. 13309 Range 4700

(B) First Initial Flow Pressure 91.5 PSI @ (depth) 4704 w / Clock No. 19960

(C) First Final Flow Pressure 115.4 PSI AK1 Recorder No. 13339 Range 4025

(D) Initial Shut-in Pressure 903.8 PSI @ (depth) 4803 w / Clock No. 22992

(E) Second Initial Flow Pressure 175.6 PSI AK1 Recorder No. _____ Range _____
PLUGGING

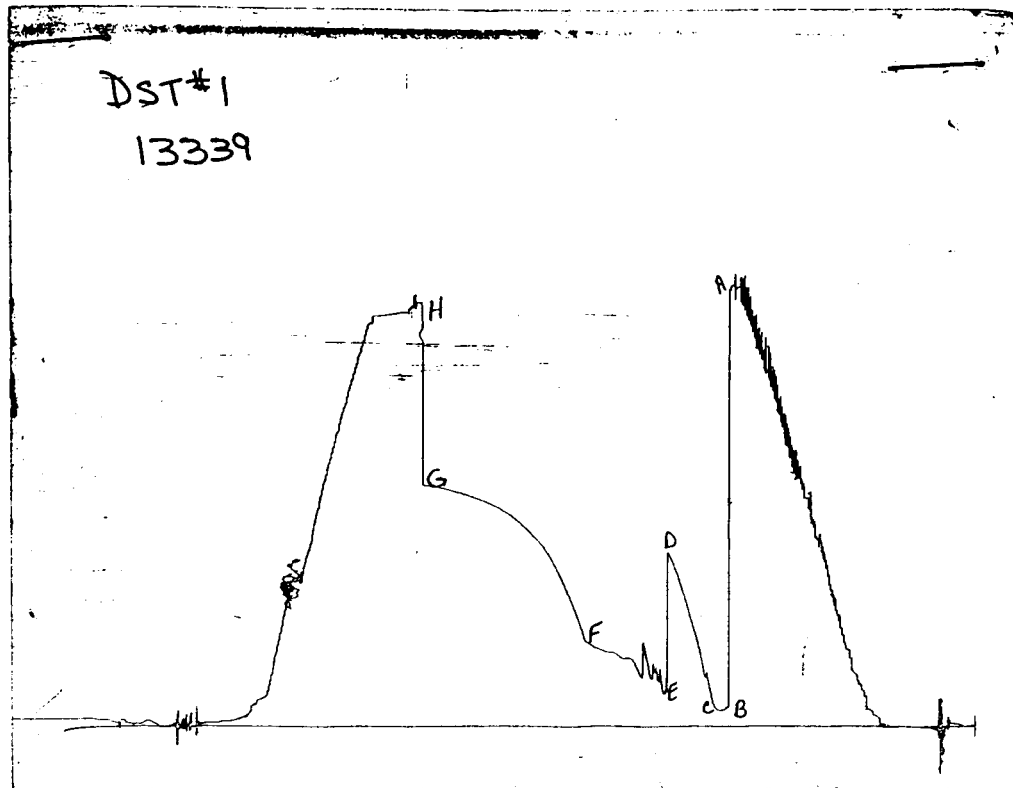
(F) Second Final Flow Pressure 447.8 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1252.9 PSI Initial Opening 15 Final Flow 60

(H) Final Hydrostatic Mud 2210.8 PSI Initial Shut-in 30 Final Shut-in 120

Our Representative ROD STEINBRINK

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
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(A) INITIAL HYDROSTATIC MUD	2273	2279.6
(B) FIRST INITIAL FLOW PRESSURE	72	91.5
(C) FIRST FINAL FLOW PRESSURE	93	115.4
(D) INITIAL CLOSED-IN PRESSURE	899	903.8
(E) SECOND INITIAL FLOW PRESSURE	155	175.6
(F) SECOND FINAL FLOW PRESSURE	239	447.8
(G) FINAL CLOSED-IN PRESSURE	1251	1252.9
(H) FINAL HYDROSTATIC MUD	2203	2210.8

DST #

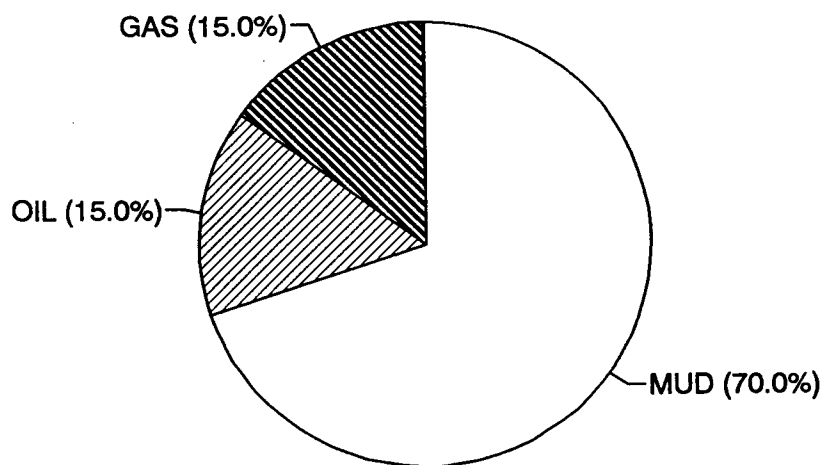
1

TICKET

7063

SAMPLE	TOTAL	GAS		OIL		WATER		MUD	
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	150	15	22.5	15	22.5	0	0	70	105
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	150	15.00	22.5	15.00	22.5	0.00	0	70	105

			HRS OP	BBL/DAY
BBL OIL=	0.110025	*	1.25	2.11248
BBL WATER=	0	*		0
BBL MUD=	0.51345			
BBL GAS=	0.110025			



MUD
OIL
GAS
WTR

GREEN ACRE FARM DST #1
INITIAL SHUTIN

15	INITIAL FLOW TIME	SLOPE	3955.9	PSI/CYCLE	
		P*	1502.20	PSI	

		Log	<>		
	TIME(MIN)	Pws (psi)	Horn T	PRESSURE	
				Horn T	
	-----	-----	-----	-----	
	3	193.3	0.778	193.3	6
	6	261.9	0.544	68.6	4
	9	317.9	0.426	56.0	3
	12	412.6	0.352	94.7	2
	15	488.1	0.301	75.5	2
	18	545.1	0.263	57.0	2
	21	619.2	0.234	74.1	2
	24	683.4	0.211	64.2	2
	27	752.5	0.192	69.1	2
X	30	805.6	0.176	53.1	2
	33	859.7	0.163	54.1	1
X	36	903.8	0.151	44.1	1

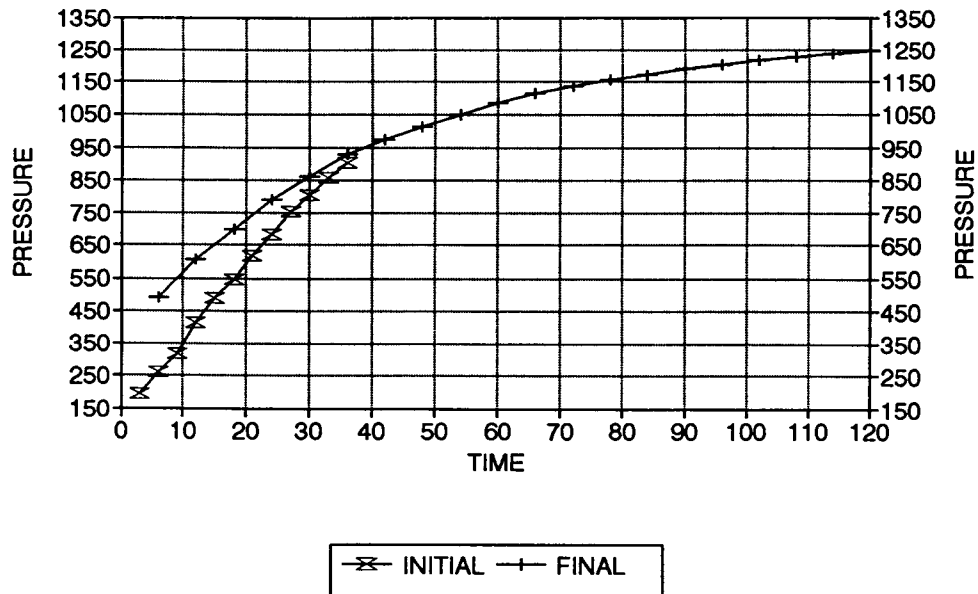
GREEN ACRE FARM DST #1
FINAL SHUTIN

75	TOTAL FLOW TIME		SLOPE	1002.1	PSI/CYCLE
			P*	1448.7	PSI

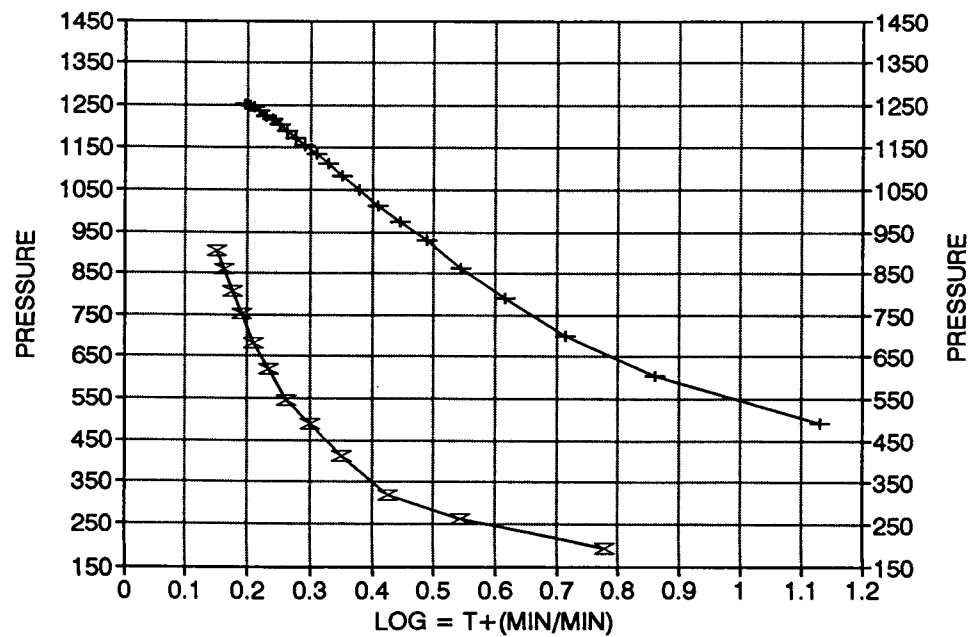
			Log	<>	
			Horn T	PRESSURE	Horn T
			-----	-----	-----
	6	492.1	1.130	492.1	14
	12	605.2	0.860	113.1	7
	18	700.4	0.713	95.2	5
	24	791.6	0.615	91.2	4
	30	862.7	0.544	71.1	4
	36	929.8	0.489	67.1	3
	42	973.9	0.445	44.1	3
	48	1013.9	0.409	40.0	3
	54	1051.1	0.378	37.2	2
	60	1085.2	0.352	34.1	2
	66	1114.3	0.330	29.1	2
	72	1136.4	0.310	22.1	2
X	78	1155.5	0.293	19.1	2
	84	1172.6	0.277	17.1	2
	90	1190.7	0.263	18.1	2
	96	1204.7	0.251	14.0	2
	102	1216.7	0.239	12.0	2
	108	1225.8	0.229	9.1	2
	114	1237.8	0.220	12.0	2
	120	1245.9	0.211	8.1	2
	126	1248.9	0.203	3.0	2

GREEN ACRE FARMS #1-23 / DST #1

DELTA T DELTA P



HORNER PLOT



FLUID SAMPLER DATA

Ticket No.: 7063 Date: 5/20/94
Company: ENSIGN OPERATING COMPANY
Lease: GREEN ACRE FARMS #1-23 Test No.: 1
County: KEARNEY Sec.: 23 Twp.: 23S Rng.: 35W

SAMPLER RECOVERY

Gas 1000
Oil 1000
Mud 2000
Water
Other
Pressure 400
TOTAL 4000

SAMPLER ANALYSIS

Resistivity ohms@ F
Chlorides ppm.
Gravity corrected @60F

CENTRIFUSED 30 MINUTES
WOULD NOT SEPARATE
COMPLETELY

PIT MUD ANALYSIS

Chlorides 3900
Resistivity 1.6 ohms@ 70 F
Viscosity 44
Mud Wt. 9.0
Filtrate 8.8
Other

PIPE RECOVERY

TOP

Resistivity ohms@ F
Chlorides ppm

MIDDLE

Resistivity ohms@ F
Chlorides ppm

BOTTOM

Resistivity ohms@ F
Chlorides ppm

TRILOBITE TESTING L.L.C.

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FLUID SAMPLER DATA

Ticket No. 7063 Date 5-20-94
Company Name Ensign Operating Co. Cont. Allen #2
Lease Green Acre Farms #1-23 Test No. 1 Morrow
County Kearny KS. Sec. 23 Twp. 23S Rng. 35W

SAMPLER RECOVERY

Gas 1,000 est. ML
Oil 1,000 est. ML
Mud 2,000 est. ML
Water — ML
Other — ML
Pressure 400# PSI
Total 4,000 ML

PIT MUD ANALYSIS

Chlorides 3,900 ppm.
Resistivity 1.6 ohms @ 70° F
Viscosity 44
Mud Weight 9.0
Filtrate 8.8
Other L.C.M. 2#/bbl.

SAMPLER ANALYSIS

Resistivity — ohms @ — F
Chlorides — ppm.
Gravity — corrected @ 60 F

PIPE RECOVERY

TOP
Resistivity — ohms @ — F
Chlorides — ppm.

MIDDLE
Resistivity — ohms @ — F
Chlorides — ppm.

BOTTOM
Resistivity — ohms @ — F
Chlorides — ppm.

Centrifused 30 mins
wouldn't ~~separate~~ separate
completely

WELL NAME Green Acre Farm DST # 1 RECORDER # 13339

INIT. HYD. MUD. 2.340 FINAL HYD. MUD 2.222

INITIAL FLOW MINUTES 15 INITIAL SHUTIN MINUTES 30 FINAL FLOW MINUTES 60 FINAL SHUTIN MINUTES 120
INTERVAL _____ INTERVAL _____ INTERVAL _____ INTERVAL 6

100 .087	—	1	.169	—
083 .083	.186	2	—	.474
88 .088	.252	3	—	.586
111 .442	.305	4	—	.681
	.397	5	—	.772
	.470	6	—	.843
	.526	7	—	.910
	.600	8	.271	.954
	.664	9	.315	.994
	.733	10	.342	1.031
	.786	11	.346	1.065
	.840	12	.346	1.094
	.884	13	.356	1.116
		14	.371	1.135
		15	.379	1.152
		16	.380	1.170
		17	.382	1.184
		18	.390	1.196
		19	.399	1.205
		20	.406	1.217
		21	.420	1.225
		22	.431	1.228
		23		1.232
		24		
		25		
		26		
		27		

1	0.1	104
2	0.083	86.32
3	0.088	91.52
4	0.111	115.4237
5		0
6	0.169	175.658
7	0.271	281.7366
8	0.315	327.4871
9	0.342	355.5421
10	0.346	359.6981
11	0.346	359.6981
12	0.356	370.0881
13	0.371	385.6724
14	0.379	393.9838
15	0.38	395.0227
16	0.382	397.1005
17	0.39	405.4115
18	0.399	414.7612
19	0.406	422.0005
20	0.42	436.464
21	0.431	447.8241

1	0.186	193.3383
2	0.252	261.9758
3	0.305	317.0958
4	0.397	412.6835
5	0.47	488.0715
6	0.526	545.1674
7	0.6	619.2
8	0.664	683.4267
9	0.733	752.5371
10	0.786	805.6107
11	0.84	859.74
12	0.884	903.8016

1	0.474	492.1969
2	0.586	605.2442
3	0.681	700.428
4	0.772	791.6088
5	0.843	862.7473
6	0.91	929.838
7	0.954	973.9577
8	0.994	1013.999
9	1.031	1051.155
10	1.065	1085.293
11	1.094	1114.384
12	1.116	1136.48
13	1.135	1155.568
14	1.152	1172.638
15	1.17	1190.705
16	1.184	1204.752
17	1.196	1216.789
18	1.205	1225.825
19	1.217	1237.882
20	1.225	1245.919
21	1.228	1248.933
22	1.232	1252.95