

SUPERIOR TESTERS
RR #1, Box 295B, Great Bend, Kansas

Date 10-31-84 Location 4 11^s 15^w Elevation 1891 K.B. County Russell

Company Energy III Number of Copies _____

Address P.O. Box 1505 Great Bend, Kansas 67530

Charts Mailed to P.O. Box 1505 Great Bend, Kansas 67530

Invoice Mailed to P.O. Box 1505 Great Bend, Kansas 67530

Lease Hackmeister Well No. #1 Formation Tested Arkache Test No. #5

Depth 3321' Tested from 3371' to 3381' Packer Size 6³/₄ Anchor Length 10'

Top Packer Depth 3371' ft. Bottom Packer Depth None ft. Dual Packers No

Tool Joint Size 4 1/2 F.A. Tool Size 5 1/2 O.D. Hole Size 2 7/8 Did Packer Hold yes

Drilling Contractor Big D Drilling

Length Drill Pipe 3355 I.D. Drill Pipe 3.70 Tool Joint Size 4 1/2 x 1 1/4

Length Weight Pipe None I.D. Weight Pipe - Tool Joint Size -

Length Drill Collars None I.D. Drill Collars - Tool Joint Size -

Tool Open I.F.P. from 10:30 P.m to 11:00 P.m 30 min

Tool Closed I.C.I.P. from 11:00 P.m to 12:00 A.m 60 min

Tool Open F.F.P. from 12:00 A.m to 12:45 A.m 45 min

Tool Closed F.C.I.P. from 12:45 A.m to 1:15 A.m 90 min

from [B]	<u>49</u>	P.S.I. to [C]	<u>49</u>	P.S.I.
[D]	<u>996</u>			P.S.I.
from [E]	<u>65</u>	P.S.I. to [F]	<u>65</u>	P.S.I.
[G]	<u>980</u>			P.S.I.

Initial Hydrostatic Pressure [A] 1272 P.S.I. Final Hydrostatic Pressure [H] 1442 P.S.I. Maximum Temp 96° °F

Initial Blow Fair Blow - Building slowly 7" into water

Final Blow Fair Blow - Building slowly 6" into water

Gas to Surface None Min. Oil to Surface None Min. Mut Weight 99 Viscosity 45

Gas Guaged None

Recovery 70' Gassy + Frogy Oil
60' Muddy oil 17% mud 8% water 75% oil

Remarks _____

Extra Equipment-Jars None Safety Joint None Extra Packer None Straddle None Hook Wall High

Top Recorder No. 2186 Clock no. 23914 Depth 3365' Cir. Sub _____ Sampler None

Bottom Recorder No. 13207 Clock No. 23915 Depth 3362' Chlorides - pits _____ D.S.T. _____

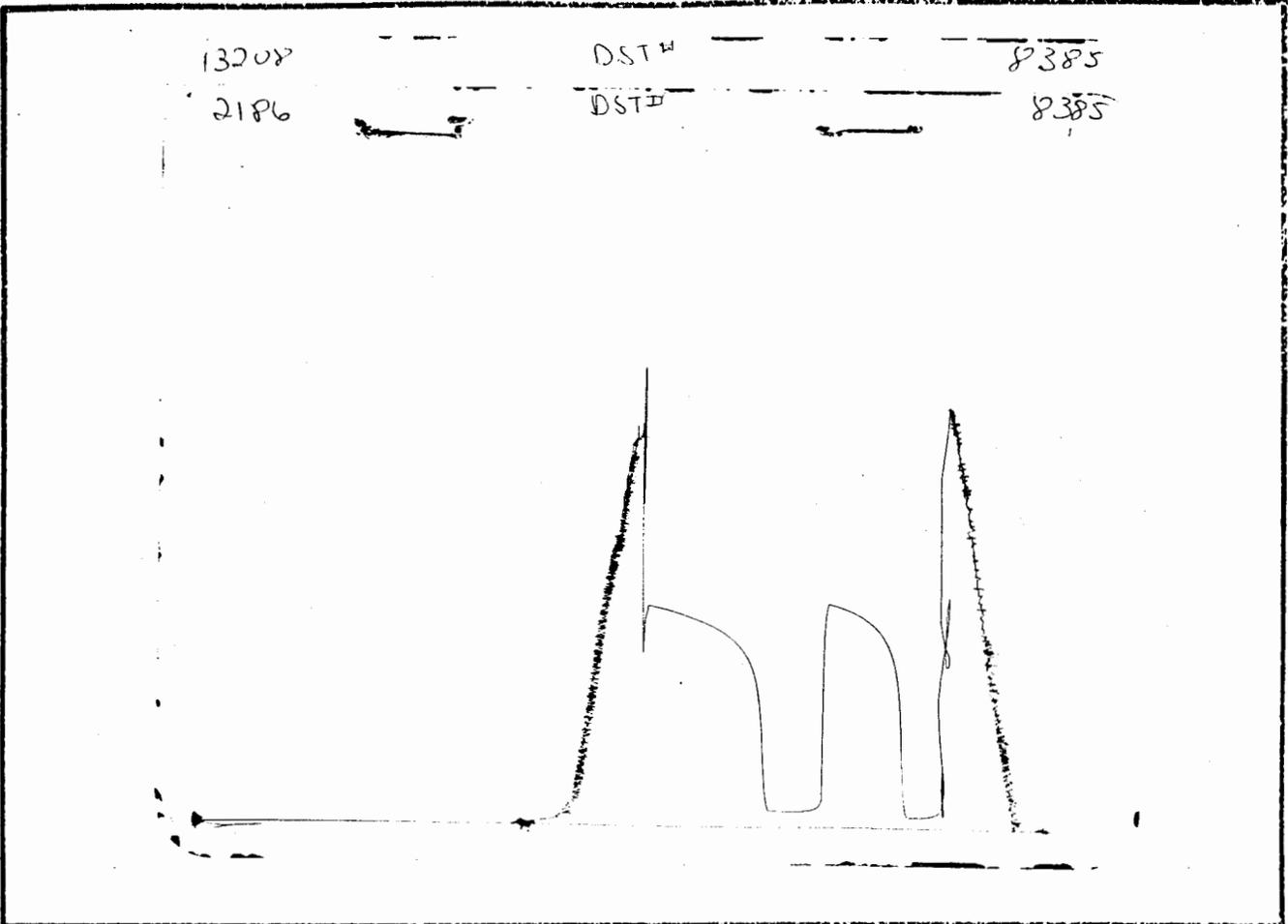
Price of Job \$600.00

Tool Operator Juan Lopez

Approved By _____

SUPERIOR TESTERS, INC. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND TO THE PROPERTY OR PERSONEL OF THE ONE FOR WHOM A TEST IS MADE, OF FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Ticket No 8385



This is an actual photograph of recorder chart.

POINT	PRESSURE		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	1872	1774	P.S.I.
(B) First Initial Flow Pressure	49	96	P.S.I.
(C) First Final Flow Pressure	49	50	P.S.I.
(D) Initial Closed-in Pressure	996	998	P.S.I.
(E) Second Initial Flow Pressure	65	119	P.S.I.
(F) Second Final Flow Pressure	65	72	P.S.I.
(G) Final Closed-in Pressure	980	980	P.S.I.
(H) Final Hydrostatic Mud	1847	1735	P.S.I.

SUPERIOR TESTERS ENTERPRISES, INC.

WELL IDENTIFICATION DATA

COMPANY : ENERGY THREE, INC.	WELL NAME : HACHMEISTER #1
ADDRESS : P.O. BOX 1505, GREAT BEND	LOCATION : 4-11S-15W
STATE & COUNTY : KANSAS, RUSSELL	FIELD :
TEST INT. KB : 3371 to 3381	TEST DATE : 10-31-84
ELEV. (GR) : (KB) : 1891	TOTAL INTERVAL (ft) K.B. : 10.00

EQUIPMENT AND HOLE DATA

TYPE OF TEST : CONVENTIONAL	DRILL PIPE LENGTH (ft) : 3371
TOTAL DEPTH (ft-kb) : 3381	DRILL PIPE I.D. (in) : 3.80
MAIN HOLE/CASING SIZE (in) : 7 7/8	DRILL COLLAR LENGTH (ft) : NONE
RAT HOLE/LINER SIZE (in) :	DRILL COLLAR I.D. (in) : NONE
FORMATION TESTED : ARBUCKLE	TOP PACKER DEPTH (kb) : 3371
PACKER SIZE (in) : 6 3/4	BOTTOM PACKER DEPTH (kb) : NONE
DUAL PACKERS : NO	PACKER HOLD : YES
TOOL SIZE : 5 1/2 O.D.	TOOL JOINT SIZE : 4 1/2 F.H.
MUD VISCOSITY : 45	MUD WEIGHT : 9.9
WEIGHT PIPE LENGTH(FT) : NONE	WEIGHT PIPE ID : NONE
EXTRA EQUIPMENT : NONE	ANCHOR LENGTH(FT) : 10
SURFACE CHOKE : 3/4	BOTTOM CHOKE : 3/4
REVERSED OUT : NO	

SUBSURFACE PRESSURE MEASUREMENTS

ELEMENT SERIAL NO. : 2186
 RANGE : 0 - 3275 CLOCK RANGE : 12 HOURS
 CAL. EQU. : 819.40 * Defl. + 2.12

COMMENTS	TIME min	DEFL in	----- CALC	PRESSURE PSIG CORR	----- CORRECTED
TEST NO.:5					
Depth : 3365.0 ft-kb					
-1ST HYDROSTATIC	0.0	2.161	1772.85	1.74	1774.59
-22:30 1ST FLOW	0.0	.118	98.81	-2.08	96.72
- 22:34	4.0	.080	67.67	-2.09	65.57
- 22:38	8.0	.068	57.84	-2.10	55.74
- 22:43	13.0	.063	53.74	-2.10	51.64
- 22:47	17.0	.062	52.92	-2.10	50.82
- 22:51	21.0	.062	52.92	-2.10	50.82
- 22:55	25.0	.062	52.92	-2.10	50.82
-22:55 END FLOW	0.0	.062	52.92	-2.10	50.82
- 22:58	3.0	.118	98.81	-2.08	96.72
- 23:01	6.0	.423	348.72	-2.00	346.72
- 23:03	8.0	.730	600.28	-.94	599.34
- 23:06	11.0	.850	698.61	.07	698.68
- 23:09	14.0	.937	769.90	.80	770.70

REMARKS :

1ST BLOW: FAIR BUILDING SLOWLY 7 INCHES INTO WATER
 2ND BLOW: FAIR BUILDING SLOWLY 6 INCHES INTO WATER

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : ENERGY THREE, INC.
 DATE OF TEST : 10-31-84
 DEPTH : 3365.0

WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 SERIAL NO. : 2186

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	----- CORRECTED
TEST NO.:5					
- 23:12	17.0	.988	811.69	1.23	812.91
- 23:15	20.0	1.021	838.73	1.50	840.23
- 23:17	22.0	1.052	864.13	1.76	865.89
- 23:20	25.0	1.076	883.79	1.97	885.76
- 23:23	28.0	1.096	900.18	2.14	902.32
- 23:26	31.0	1.112	913.29	2.27	915.56
- 23:29	34.0	1.127	925.58	2.40	927.98
- 23:32	37.0	1.140	936.24	2.51	938.74
- 23:34	39.0	1.151	945.25	2.60	947.85
- 23:37	42.0	1.163	955.08	2.70	957.78
- 23:40	45.0	1.173	963.28	2.78	966.06
- 23:43	48.0	1.180	969.01	2.84	971.85
- 23:46	51.0	1.188	975.57	2.91	978.48
- 23:48	53.0	1.194	980.48	2.96	983.44
- 23:51	56.0	1.201	986.22	3.02	989.24
- 23:54	59.0	1.207	991.14	3.07	994.21
- 23:57	62.0	1.212	995.23	3.11	998.34
-23:57 1ST SHUT-IN	0.0	1.212	995.23	3.11	998.34
-23:57 2ND FLOW	0.0	.146	121.75	-2.08	119.67
- 0:01	4.0	.105	88.15	-2.09	86.07
- 0:05	8.0	.095	79.96	-2.09	77.87
- 0:10	13.0	.092	77.50	-2.09	75.41
- 0:14	17.0	.089	75.04	-2.09	72.95
- 0:18	21.0	.087	73.40	-2.09	71.31
- 0:22	25.0	.087	73.40	-2.09	71.31
- 0:26	29.0	.087	73.40	-2.09	71.31
- 0:31	34.0	.087	73.40	-2.09	71.31
- 0:35	38.0	.088	74.22	-2.09	72.13
- 0:37	40.0	.089	75.04	-2.09	72.95
-24:37 END FLOW	0.0	.089	75.04	-2.09	72.95
- 0:40	3.0	.164	136.50	-2.07	134.43
- 0:43	6.0	.412	339.71	-2.01	337.70
- 0:45	8.0	.671	551.94	-1.44	550.50
- 0:48	11.0	.790	649.45	-.44	649.01
- 0:51	14.0	.856	703.53	.12	703.64
- 0:54	17.0	.901	740.40	.49	740.89
- 0:57	20.0	.932	765.80	.76	766.56
- 0:59	22.0	.961	789.56	1.00	790.56
- 1:02	25.0	.984	808.41	1.19	809.60
- 1:05	28.0	1.002	823.16	1.34	824.50

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : ENERGY THREE, INC.
 DATE OF TEST : 10-31-84
 DEPTH : 3365.0

WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 SERIAL NO. : 2186

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	----- CORRECTED
TEST NO.:5					
- 1:08	31.0	1.019	837.09	1.49	838.58
- 1:11	34.0	1.034	849.38	1.61	850.99
- 1:14	37.0	1.048	860.85	1.73	862.58
- 1:17	40.0	1.061	871.50	1.84	873.34
- 1:19	42.0	1.072	880.52	1.93	882.45
- 1:22	45.0	1.081	887.89	2.01	889.90
- 1:25	48.0	1.091	896.09	2.09	898.18
- 1:28	51.0	1.099	902.64	2.16	904.80
- 1:30	53.0	1.108	910.02	2.24	912.25
- 1:33	56.0	1.115	915.75	2.29	918.05
- 1:36	59.0	1.122	921.49	2.35	923.84
- 1:39	62.0	1.130	928.04	2.42	930.46
- 1:42	65.0	1.137	933.78	2.48	936.26
- 1:45	68.0	1.145	940.33	2.55	942.88
- 1:47	70.0	1.151	945.25	2.60	947.85
- 1:50	73.0	1.157	950.17	2.65	952.81
- 1:53	76.0	1.163	955.08	2.70	957.78
- 1:56	79.0	1.168	959.18	2.74	961.92
- 1:59	82.0	1.173	963.28	2.78	966.06
- 2:01	84.0	1.177	966.55	2.82	969.37
- 2:04	87.0	1.182	970.65	2.86	973.51
- 2:07	90.0	1.186	973.93	2.89	976.82
- 2:10	93.0	1.190	977.21	2.93	980.13
- 2:11	94.0	1.190	977.21	2.93	980.13
-02:11 2ND SHUT-IN	0.0	1.190	977.21	2.93	980.13
-2ND HYDROSTATIC	0.0	2.113	1733.52	1.73	1735.25

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : ENERGY THREE, INC.
DATE OF TEST : 10-31-84

WELL NAME : HACHMEISTER #1
LOCATION : 4-11S-15W

RECOVERY INFORMATION

LIQUID RECOVERY

Total Fluid Recovered : 130

Recovered 70 feet of GASSY AND FROGGY OIL
Recovered 60 feet of MUDDY OIL

GAS RECOVERY

Measured With :

Riser :

Time (min.)

()

Reading

Surface Choke (in.)

Cubic feet/day

FLUID PROPERTIES

	Viscosity (cp)	Compressibility (psi ⁻¹)	Pore Space Saturation
Oil	.8	7.7E-6	.6
Gas			
Water	.45	3.1E-6	.4

CALCULATED RECOVERY ANALYSIS

DST Number:5

Test ticket number:8385

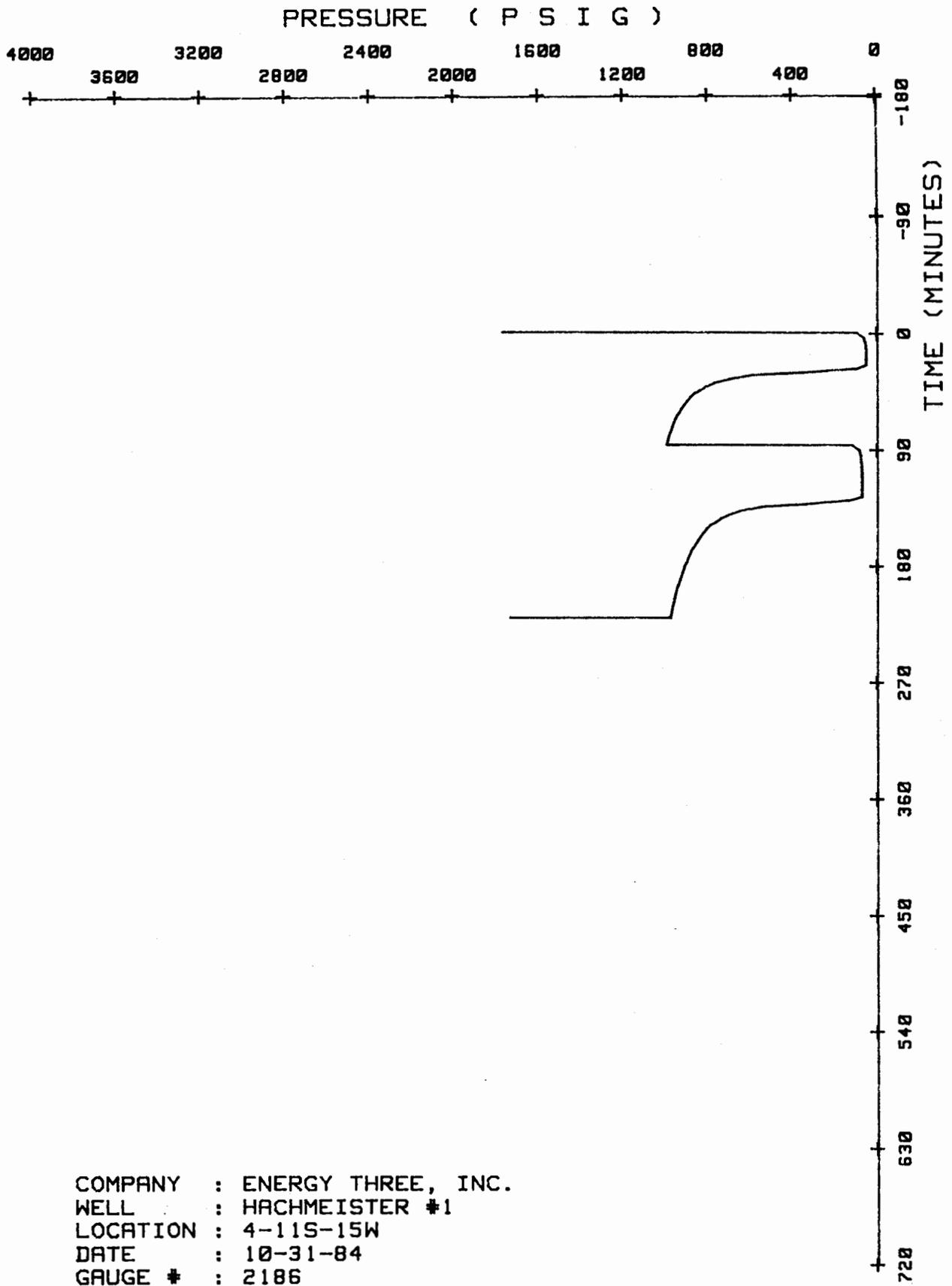
Sample #	Total Feet	***** Gas %	**** Feet	***** Oil %	**** Feet	***** Mud %	**** Feet
1	60	0.00	0.00	75.00	45.00	17.00	10.20
TOTAL	60	0.00	0.00	75.00	45.00	17.00	10.20

Sample #	Total Feet	**** WATER %	**** Feet	Chlorides (ppm)	Resistivity (ohms)	Temperature (deg)
1	60	8.00	4.80	0.00	0.00	0.00
TOTAL	60	8.00	4.80			

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

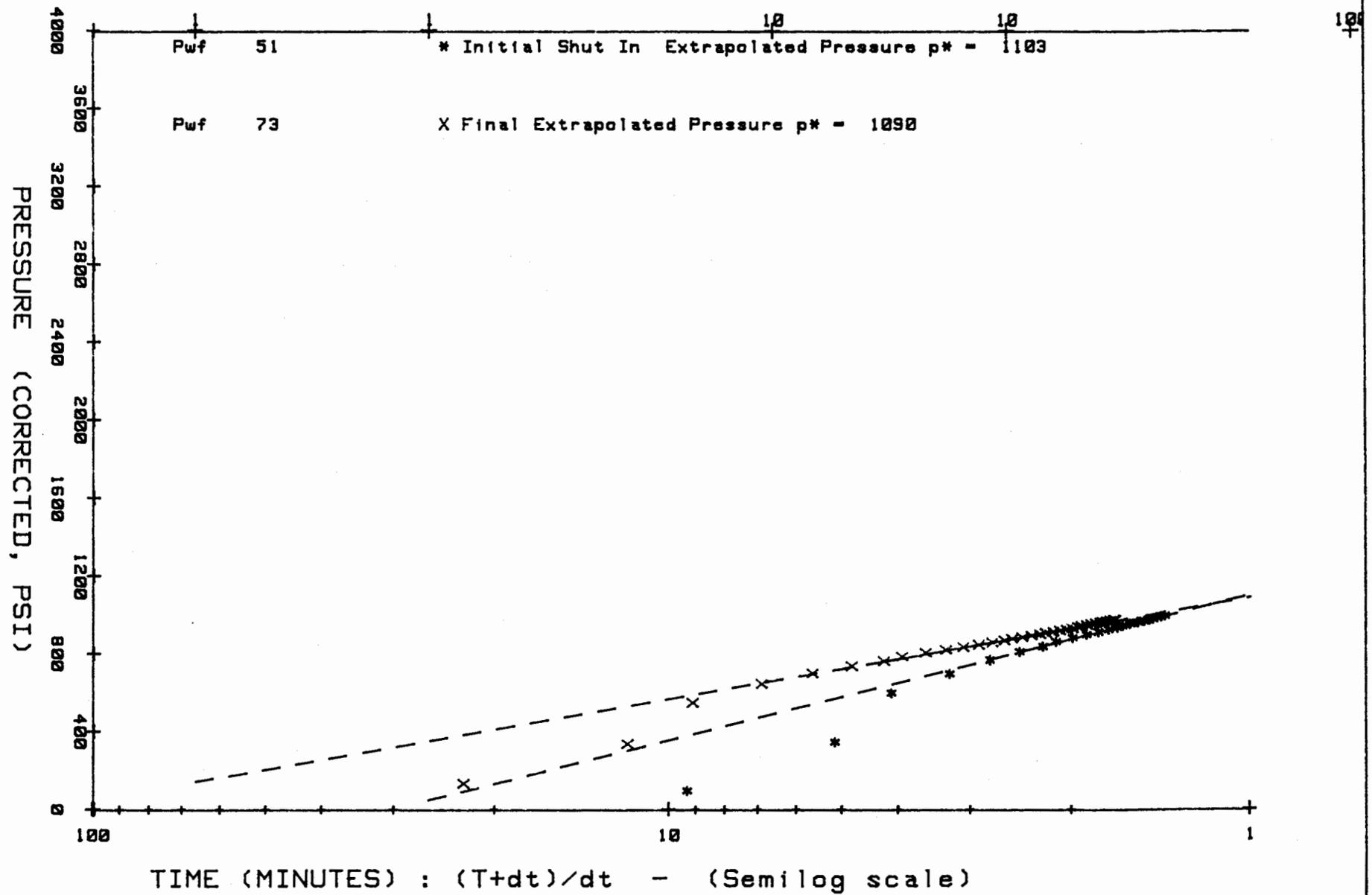
INTERPRETATION BY : SUPERIOR TESTERS INC.



LOCATION : 4-11S-15W

DATE : 10-31-84

GAUGE # : 2186



SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : ENERGY THREE, INC.
 WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 STATE & COUNTY : KANSAS, RUSSELL
 DATE OF TEST : 10-31-84
 TEST INT. KB : 3371 to 3381
 TOTAL INTERVAL (ft) K.B. : 10.00
 ELEV.(GR) : (KB) : 1891
 FIELD :

ELEMENT SERIAL NO. : 2186
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG -----
Refer. depth :	3365.0 ft-kb		
-22:55 END FLOW	0.00	0.00	50.82
	3.00	9.33	96.72
	6.00	5.17	346.72
	8.00	4.13	598.36
	11.00	3.27	696.72
	14.00	2.79	768.03
	17.00	2.47	809.84
	20.00	2.25	836.89
	22.00	2.14	862.30
	25.00	2.00	881.97
	28.00	1.89	898.36
	31.00	1.81	911.48
	34.00	1.74	923.77
	37.00	1.68	934.43
	39.00	1.64	943.44
	42.00	1.60	953.28
	45.00	1.56	961.48
	48.00	1.52	967.21
	51.00	1.49	973.77
	53.00	1.47	978.69

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : ENERGY THREE, INC.
 DATE OF TEST : 10-31-84
 REFERENCE DEPTH : 3365.0

WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 SERIAL NO. : 2186

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
	56.00	1.45	984.43	
	59.00	1.42	989.34	
	62.00	1.40	993.44	
-23:57 1ST SHUT-IN	0.00	0.00	993.44	

SUPERIOR TESTERS ENTERPRISES, INC.

D A T A S U M M A R Y

COMPANY : ENERGY THREE, INC.
DATE OF TEST : 10-31-84
DST. NO : 5

WELL NAME : HACHMEISTER #1
LOCATION : 4-11S-15W
SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1103.00
Slope of Build-up Curve (psi/log cycle):	742.90
Effective Producing Time (min):	25.00

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : ENERGY THREE, INC.
 WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 STATE & COUNTY : KANSAS, RUSSELL
 DATE OF TEST : 10-31-84
 TEST INT. KB : 3371 to 3381
 TOTAL INTERVAL (ft) K.B. : 10.00
 ELEV.(GR) : (KB) : 1891
 FIELD :

ELEMENT SERIAL NO. : 2186
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
Refer. depth :	3365.0	ft-kb		
-24:37 END FLOW	0.00	0.00	72.95	
	3.00	22.67	134.43	
	6.00	11.83	337.70	
	8.00	9.13	550.00	
	11.00	6.91	647.54	
	14.00	5.64	701.64	
	17.00	4.82	738.52	
	20.00	4.25	763.93	
	22.00	3.95	787.70	
	25.00	3.60	806.56	
	28.00	3.32	821.31	
	31.00	3.10	835.25	
	34.00	2.91	847.54	
	37.00	2.76	859.02	
	40.00	2.63	869.67	
	42.00	2.55	878.69	
	45.00	2.44	886.07	
	48.00	2.35	894.26	
	51.00	2.27	900.82	
	53.00	2.23	908.20	

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : ENERGY THREE, INC.
 DATE OF TEST : 10-31-84
 REFERENCE DEPTH : 3365.0

WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 SERIAL NO. : 2186

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
	56.00	2.16	913.93	
	59.00	2.10	919.67	
	62.00	2.05	926.23	
	65.00	2.00	931.97	
	68.00	1.96	938.52	
	70.00	1.93	943.44	
	73.00	1.89	948.36	
	76.00	1.86	953.28	
	79.00	1.82	957.38	
	82.00	1.79	961.48	
	84.00	1.77	964.75	
	87.00	1.75	968.85	
	90.00	1.72	972.13	
	93.00	1.70	975.41	
	94.00	1.69	975.41	
-02:11 2ND SHUT-IN	0.00	0.00	975.41	

SUPERIOR TESTERS ENTERPRISES, INC.

D A T A S U M M A R Y

COMPANY : ENERGY THREE, INC.
DATE OF TEST : 10-31-84
DST. NO : 5

WELL NAME : HACHMEISTER #1
LOCATION : 4-115-15W
SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1090.00
Slope of Build-up Curve (psi/log cycle):	518.50
Effective Producing Time (min):	65.00

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : ENERGY THREE, INC.
DATE OF TEST : 10-31-84
DST. NO : 5

WELL NAME : HACHMEISTER #1
LOCATION : 4-11S-15W
SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY

Oil (md.ft/cp):	9.87
Gas (md.ft/cp):	0.00

EFFECTIVE PERMEABILITY

Oil (md):96
Gas (md):	0.00

TOTAL MOBILITY (md/cp): 1.35

TOTAL COMPRESSIBILITY (psi⁻¹): 6.34E-06

ESTIMATED DAMAGE RATIO:44

CALCULATED DAMAGE RATIO:46

Reservoir Temperature (F): 96.00

Formation Porosity :07

Formation Thickness (ft): 10.00

Wellbore Radius (in): 3.94

Reservoir Compressibility (psi⁻¹): 4.80E-07

Calculated Skin Factor : -2.64

PRODUCTION WITH DAMAGE REMOVED (bbl/D): 14.50

PRODUCTIVITY INDEX (bbl/psi):03

Final Flow Pressure (psi): 73.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 58.68

Total Flowing Time (min): 65.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1090.00

Slope of Build-up Curve (psi/log cycle): 518.50

Effective Producing Time (min): 65.00

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS
RR #1, Box 295B, Great Bend, Kansas

Date 11-1-24 Location 4 11^s 15^N Elevation 1891 KB County Russell

Company Energy III Number of Copies _____

Address P.O. Box 1505 Great Bend, Kansas 67530

Charts Mailed to P.O. Box 1505 Great Bend, Kansas 67530

Invoice Mailed to P.O. Box 1505 Great Bend, Kansas 67530

Lease Hackmeister Well No. #1 Formation Tested Arkenshale Test No. #6

Depth 3391' Tested from 3381' to 3391' Packer Size 6 3/4 Anchor Length 10'

Top Packer Depth 3381' ft. Bottom Packer Depth None ft. Dual Packers No

Tool Joint Size 4 1/2 G.H. Tool Size 5 1/2 O.D. Hole Size 7 7/8 Did Packer Hold yes

Drilling Contractor Pig Drilling

Length Drill Pipe 3365' I.D. Drill Pipe 3 20 Tool Joint Size 4 1/2 G.H.

Length Weight Pipe None I.D. Weight Pipe _____ Tool Joint Size _____

Length Drill Collars None I.D. Drill Collars None Tool Joint Size _____

Tool Open I.F.P. from 1:45 P.m to 2:15 P.m 30 min
 Tool Closed I.C.I.P. from 2:15 P.m to 3:15 P.m 60 min
 Tool Open F.F.P. from 3:15 P.m to 4:00 P.m 45 min
 Tool Closed F.C.I.P. from 4:00 P.m to 5:30 P.m 90 min

from [B]	<u>73</u>	P.S.I. to [C]	<u>81</u>	P.S.I.
[D]	<u>1037</u>			P.S.I.
from [E]	<u>114</u>	P.S.I. to [F]	<u>131</u>	P.S.I.
[G]	<u>1021</u>			P.S.I.

Initial Hydrostatic Pressure [A] 1882 P.S.I. Final Hydrostatic Pressure [H] 1880 P.S.I. Maximum Temp _____ °F

Initial Blow Good Blow - off the bottom of the bucket in 28 minutes

Final Blow Good Blow - off the bottom of the bucket in 35 minutes

Gas to Surface None Min. Oil to Surface None Min. Mut Weight 99 Viscosity 45

Gas Guaged None

	<u>60' oil</u>	<u>5% mud</u>	<u>10% water</u>	<u>85% oil</u>
Recovery	<u>60' water</u>	<u>30% mud</u>	<u>28% water</u>	<u>42% oil</u>
Oil cut water	<u>60'</u>	<u>20% mud</u>	<u>75% water</u>	<u>5% oil</u>
	<u>60'</u>	<u>—</u>	<u>95% water</u>	<u>5% oil</u>
	<u>60'</u>	<u>—</u>	<u>95% water</u>	<u>5% oil</u>

Remarks _____

Extra Equipment-Jars None Safety Joint None Extra Packer None Straddle None Hook Wall None

Top Recorder No. 2196 Clock no. 23914 Depth 3325' Cir. Sub _____ Sampler None

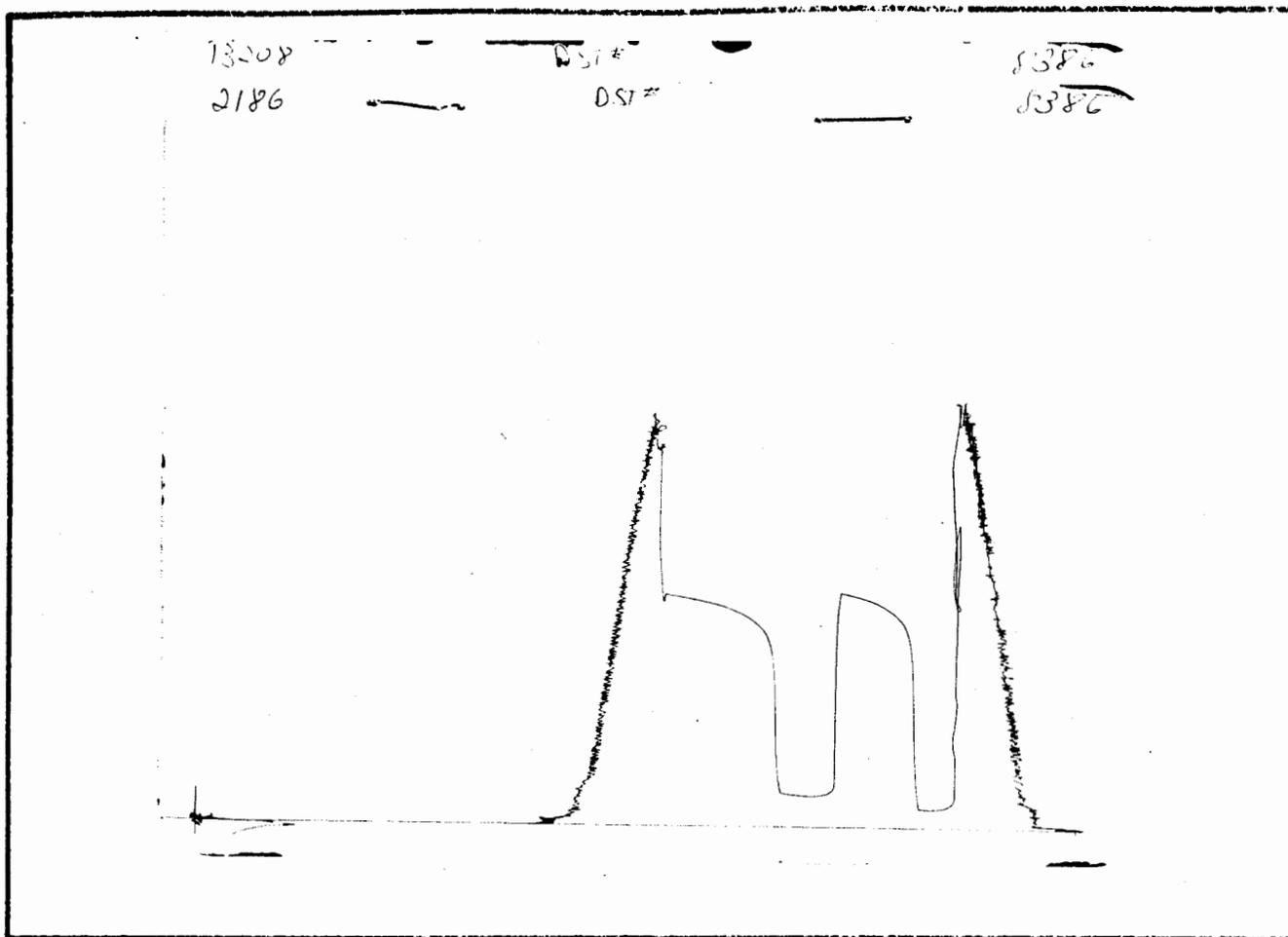
Bottom Recorder No. 13202 Clock No. 23915 Depth 3322' Chlorides - pts _____ D.S.T. _____

Price of Job 600.00

Tool Operator Iron Supper

Approved By _____

SUPERIOR TESTERS, INC. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND TO THE PROPERTY OR PERSONEL OF THE ONE FOR WHOM A TEST IS MADE, OF FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.



This is an actual photograph of recorder chart.

POINT	PRESSURE		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	1888	1795	P.S.I.
(B) First Initial Flow Pressure	73	125	P.S.I.
(C) First Final Flow Pressure	81	81	P.S.I.
(D) Initial Closed-in Pressure	1037	1033	P.S.I.
(E) Second Initial Flow Pressure	114	175	P.S.I.
(F) Second Final Flow Pressure	131	148	P.S.I.
(G) Final Closed-in Pressure	1021	1020	P.S.I.
(H) Final Hydrostatic Mud	1880	1759	P.S.I.

SUPERIOR TESTERS ENTERPRISES, INC.

WELL IDENTIFICATION DATA

COMPANY : ENERGY THREE, INC.	WELL NAME : HACHMEISTER #1
ADDRESS : P.O.BOX 1505, GREAT BEND	LOCATION : 4-11S-15W
STATE & COUNTY : KANSAS, RUSSELL	FIELD :
TEST INT. KB : 3381 to 3391	TEST DATE : 11-1-84
ELEV.(GR) : (KB) : 1891	TOTAL INTERVAL (ft) K.B. : 10.00

EQUIPMENT AND HOLE DATA

TYPE OF TEST : CONVENTIONAL	DRILL PIPE LENGTH (ft) : 3381
TOTAL DEPTH (ft-kb) : 3391	DRILL PIPE I.D. (in) : 3.80
MAIN HOLE/CASING SIZE (in) : 7 7/8	DRILL COLLAR LENGTH (ft) : NONE
RAT HOLE/LINER SIZE (in) :	DRILL COLLAR I.D. (in) : NONE
FORMATION TESTED : ARBUCKLE	TOP PACKER DEPTH (kb) : 3381
PACKER SIZE (in) : 6 3/4	BOTTOM PACKER DEPTH (kb) : NONE
DUAL PACKERS : NO	PACKER HOLD : YES
TOOL SIZE : 5 1/2 O.D.	TOOL JOINT SIZE : 4 1/2 F.H.
MUD VISCOSITY : 45	MUD WEIGHT : 9.9
WEIGHT PIPE LENGTH(FT) : NONE	WEIGHT PIPE ID : NONE
EXTRA EQUIPMENT : NONE	ANCHOR LENGTH(FT) : 10
SURFACE CHOKE : 3/4	BOTTOM CHOKE : 3/4
REVERSED OUT : NO	

SUBSURFACE PRESSURE MEASUREMENTS

ELEMENT SERIAL NO. : 2186
 RANGE : 0 - 3275
 CAL. EQU. : 819.40 * Defl. + 2.12
 CLOCK RANGE : 12 HOURS

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			CALC	CORR	CORRECTED
TEST NO.: 6					
Depth : 3375.0 ft-kb					
-1ST HYDROSTATIC	0.0	2.187	1794.15	1.75	1795.90
-13:45 1ST FLOW	0.0	.153	127.48	-2.07	125.41
- 13:49	4.0	.115	96.35	-2.09	94.26
- 13:54	9.0	.104	87.33	-2.09	85.25
- 13:58	13.0	.100	84.06	-2.09	81.97
- 14:02	17.0	.098	82.42	-2.09	80.33
- 14:07	22.0	.099	83.24	-2.09	81.15
- 14:12	27.0	.100	84.06	-2.09	81.97
-14:12 END FLOW	0.0	.100	84.06	-2.09	81.97
- 14:15	3.0	.262	216.80	-2.05	214.75
- 14:18	6.0	.732	601.92	-.93	600.99
- 14:21	9.0	.975	801.03	1.12	802.15
- 14:23	11.0	1.052	864.13	1.76	865.89
- 14:26	14.0	1.093	897.72	2.11	899.83

REMARKS :

1ST BLOW: GOOD OFF THE BOTTOM OF THE BUCKET IN 28 MINUTES
 2ND BLOW: GOOD OFF THE BOTTOM OF THE BUCKET IN 35 MINUTES

WITNESSED BY : TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : ENERGY THREE, INC.
 DATE OF TEST : 11-1-84
 DEPTH : 3375.0

WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 SERIAL NO. : 2186

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.:6					
- 14:29	17.0	1.118	918.21	2.32	920.53
- 14:32	20.0	1.136	932.96	2.47	935.43
- 14:35	23.0	1.153	946.89	2.61	949.50
- 14:38	26.0	1.166	957.54	2.72	960.26
- 14:41	29.0	1.179	968.19	2.83	971.03
- 14:43	31.0	1.190	977.21	2.93	980.13
- 14:47	35.0	1.200	985.40	3.01	988.41
- 14:50	38.0	1.208	991.96	3.08	995.03
- 14:52	40.0	1.216	998.51	3.12	1001.63
- 14:55	43.0	1.222	1003.43	3.11	1006.54
- 14:58	46.0	1.228	1008.34	3.09	1011.44
- 15:01	49.0	1.234	1013.26	3.08	1016.34
- 15:04	52.0	1.239	1017.36	3.07	1020.42
- 15:07	55.0	1.244	1021.45	3.06	1024.51
- 15:10	58.0	1.248	1024.73	3.05	1027.78
- 15:12	60.0	1.253	1028.83	3.03	1031.86
- 15:14	62.0	1.255	1030.47	3.03	1033.50
-15:15 1ST SHUT-IN	0.0	1.255	1030.47	3.03	1033.50
-15:15 2ND FLOW	0.0	.214	177.47	-2.06	175.41
- 15:19	4.0	.183	152.07	-2.07	150.00
- 15:24	9.0	.171	142.23	-2.07	140.16
- 15:28	13.0	.167	138.96	-2.07	136.89
- 15:32	17.0	.165	137.32	-2.07	135.25
- 15:37	22.0	.166	138.14	-2.07	136.07
- 15:41	26.0	.167	138.96	-2.07	136.89
- 15:45	30.0	.170	141.41	-2.07	139.34
- 15:50	35.0	.173	143.87	-2.07	141.80
- 15:54	39.0	.178	147.97	-2.07	145.90
- 15:56	41.0	.181	150.43	-2.07	148.36
-15:56 END FLOW	0.0	.181	150.43	-2.07	148.36
- 15:59	3.0	.308	254.49	-2.03	252.46
- 16:02	6.0	.714	587.17	-1.08	586.09
- 16:05	9.0	.936	769.08	.79	769.87
- 16:07	11.0	1.006	826.44	1.38	827.81
- 16:10	14.0	1.044	857.57	1.70	859.27
- 16:13	17.0	1.066	875.60	1.88	877.48
- 16:16	20.0	1.084	890.35	2.03	892.38
- 16:19	23.0	1.101	904.28	2.18	906.46
- 16:22	26.0	1.116	916.57	2.30	918.87
- 16:25	29.0	1.127	925.58	2.40	927.98

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : ENERGY THREE, INC.
 DATE OF TEST : 11-1-84
 DEPTH : 3375.0

WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 SERIAL NO. : 2186

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.:6					
- 16:28	32.0	1.138	934.60	2.49	937.09
- 16:31	35.0	1.148	942.79	2.57	945.36
- 16:34	38.0	1.155	948.53	2.63	951.16
- 16:36	40.0	1.163	955.08	2.70	957.78
- 16:39	43.0	1.171	961.64	2.77	964.40
- 16:42	46.0	1.178	967.37	2.82	970.20
- 16:45	49.0	1.184	972.29	2.88	975.17
- 16:48	52.0	1.188	975.57	2.91	978.48
- 16:51	55.0	1.193	979.67	2.95	982.62
- 16:54	58.0	1.198	983.76	2.99	986.75
- 16:56	60.0	1.203	987.86	3.03	990.89
- 16:59	63.0	1.207	991.14	3.07	994.21
- 17:02	66.0	1.211	994.41	3.10	997.52
- 17:05	69.0	1.215	997.69	3.13	1000.82
- 17:08	72.0	1.219	1000.97	3.12	1004.08
- 17:11	75.0	1.223	1004.25	3.11	1007.35
- 17:14	78.0	1.227	1007.52	3.10	1010.62
- 17:17	81.0	1.230	1009.98	3.09	1013.07
- 17:20	84.0	1.232	1011.62	3.08	1014.71
- 17:22	86.0	1.235	1014.08	3.08	1017.16
- 17:27	91.0	1.239	1017.36	3.07	1020.42
-17:27 2ND SHUT-IN	0.0	1.239	1017.36	3.07	1020.42
-2ND HYDROSTATIC	0.0	2.143	1758.10	1.74	1759.84

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : ENERGY THREE, INC.
DATE OF TEST : 11-1-84

WELL NAME : HACHMEISTER #1
LOCATION : 4-11S-15W

RECOVERY INFORMATION

LIQUID RECOVERY

Total Fluid Recovered : 300

Recovered 60 feet of OIL
Recovered 60 feet of WATERY OIL
Recovered 180 feet of OIL CUT WATER

GAS RECOVERY	Measured With :		Riser :
Time (min.)	()	
	Reading	Surface Choke (in.)	Cubic feet/day

FLUID PROPERTIES

	Viscosity (cp)	Compressibility (psi ⁻¹)	Pore Space Saturation
Oil	.8	7.7E-6	.70
Gas			
Water	.45	3.1E-6	.30

CALCULATED RECOVERY ANALYSIS

DST Number:6

Test ticket number:8386

Sample #	Total Feet	***** Gas %	***** Gas Feet	***** Oil %	***** Oil Feet	***** Mud %	***** Mud Feet
1	60	0.00	0.00	85.00	51.00	5.00	3.00
2	60	0.00	0.00	42.00	25.20	30.00	18.00
3	60	0.00	0.00	5.00	3.00	20.00	12.00
4	60	0.00	0.00	5.00	3.00	0.00	0.00
5	60	0.00	0.00	5.00	3.00	0.00	0.00
TOTAL	300	0.00	0.00	28.40	85.20	11.00	33.00

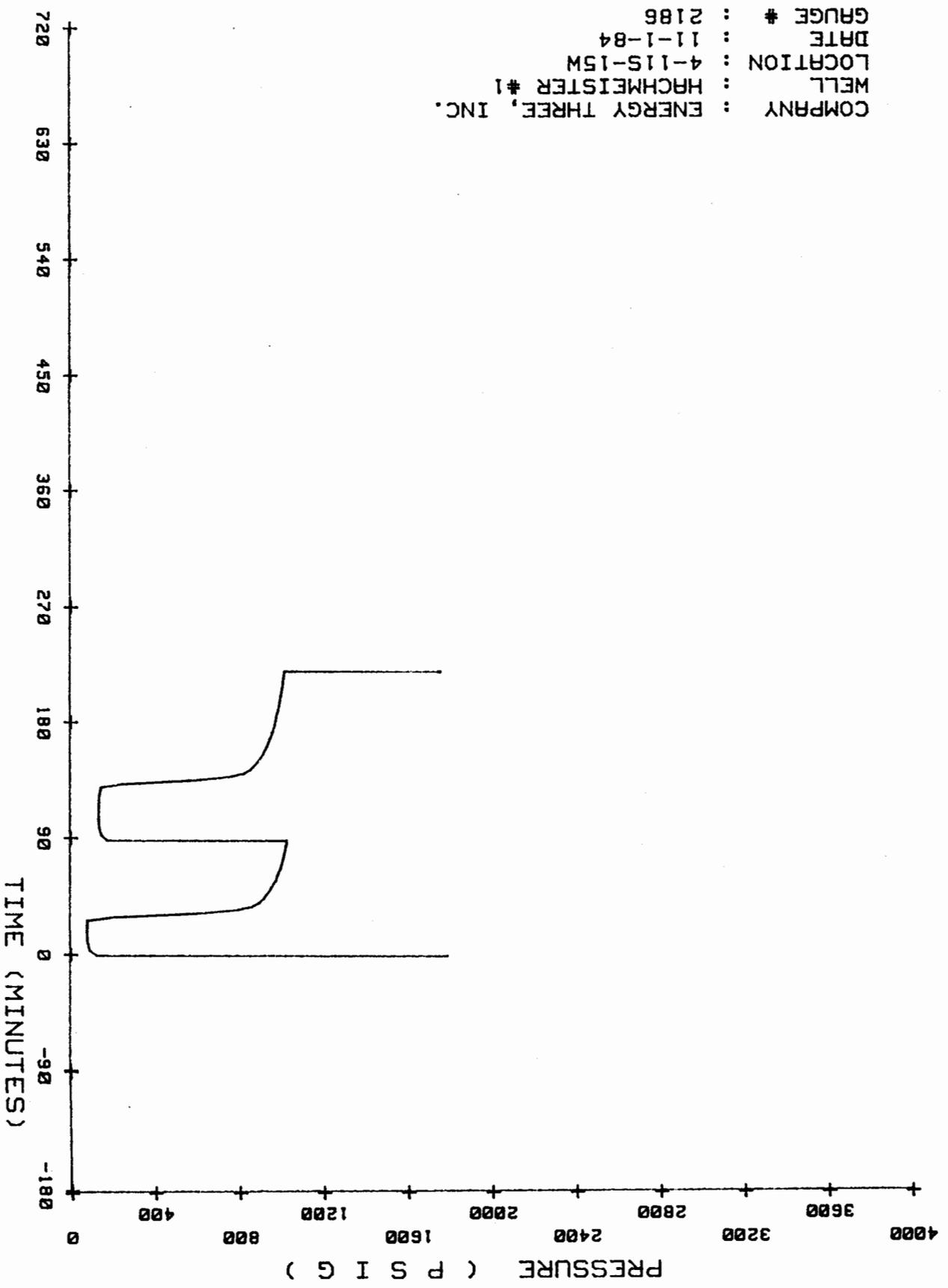
Sample #	Total Feet	**** WATER %	**** WATER Feet	Chlorides (ppm)	Resistivity (ohms)	Temperature (deg)
1	60	10.00	6.00	0.00	0.00	0.00
2	60	28.00	16.80	0.00	0.00	0.00
3	60	75.00	45.00	0.00	0.00	0.00
4	60	95.00	57.00	0.00	0.00	0.00
5	60	95.00	57.00	0.00	0.00	0.00
TOTAL	300	60.60	181.80			

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

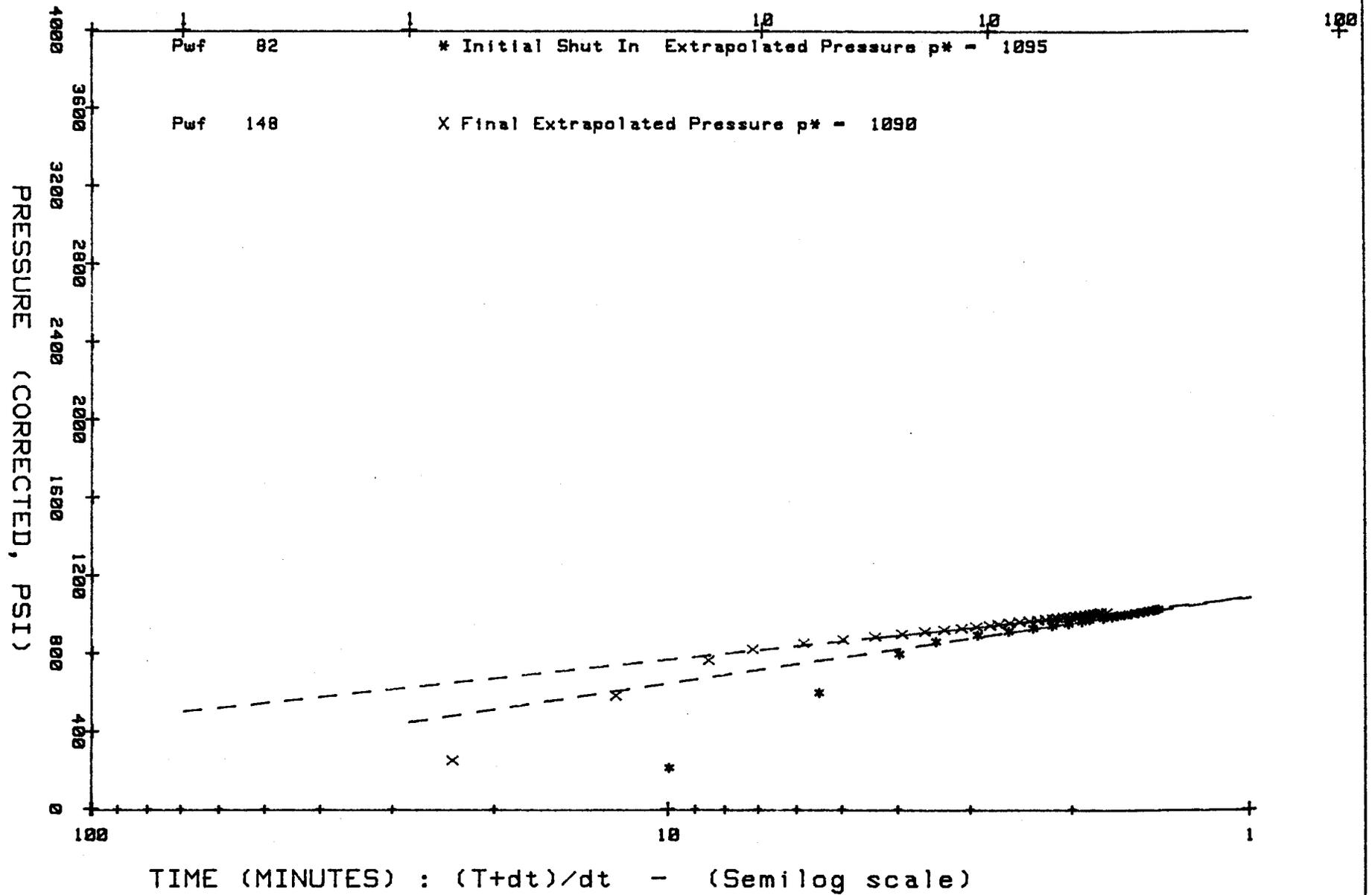
COMPANY : ENERGY THREE, INC.
 WELL : HACHMEISTER #1
 LOCATION : 4-11S-15W
 DATE : 11-1-84
 GAUGE # : 2186



LOCATION : 4-11S-15W

DATE : 11-1-84

GAUGE # : 2186



SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : ENERGY THREE, INC.
 WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 STATE & COUNTY : KANSAS, RUSSELL
 DATE OF TEST : 11-1-84
 TEST INT. KB : 3381 to 3391
 TOTAL INTERVAL (ft) K.B. : 10.00
 ELEV.(GR) : (KB) : 1891
 FIELD :

ELEMENT SERIAL NO. : 2186
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG -----
Refer. depth :	3375.0 ft-kb		
-14:12 END FLOW	0.00	0.00	81.97
	3.00	10.00	214.75
	6.00	5.50	600.00
	9.00	4.00	799.18
	11.00	3.45	862.30
	14.00	2.93	895.90
	17.00	2.59	916.39
	20.00	2.35	931.15
	23.00	2.17	945.08
	26.00	2.04	955.74
	29.00	1.93	966.39
	31.00	1.87	975.41
	35.00	1.77	983.61
	38.00	1.71	990.16
	40.00	1.68	996.72
	43.00	1.63	1001.64
	46.00	1.59	1006.56
	49.00	1.55	1011.48
	52.00	1.52	1015.57
	55.00	1.49	1019.67

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : ENERGY THREE, INC.
DATE OF TEST : 11-1-84
REFERENCE DEPTH : 3375.0

WELL NAME : HACHMEISTER #1
LOCATION : 4-11S-15W
SERIAL NO. : 2186

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
	58.00	1.47	1022.95	
	60.00	1.45	1027.05	
	62.00	1.44	1028.69	
-15:15 1ST SHUT-IN	0.00	0.00	1028.69	

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : ENERGY THREE, INC.
DATE OF TEST : 11-1-84
DST. NO : 6

WELL NAME : HACHMEISTER #1
LOCATION : 4-11S-15W
SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1095.00
Slope of Build-up Curve (psi/log cycle):	444.76
Effective Producing Time (min):	27.00

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : ENERGY THREE, INC.
 WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 STATE & COUNTY : KANSAS, RUSSELL
 DATE OF TEST : 11-1-84
 TEST INT. KB : 3381 to 3391
 TOTAL INTERVAL (ft) K.B. : 10.00
 ELEV.(GR) : (KB) : 1891
 FIELD :

ELEMENT SERIAL NO. : 2186
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG -----
Refer. depth : 3375.0 ft-kb			
-15:56 END FLOW	0.00	0.00	148.36
	3.00	23.67	252.46
	6.00	12.33	585.25
	9.00	8.56	767.21
	11.00	7.18	824.59
	14.00	5.86	855.74
	17.00	5.00	873.77
	20.00	4.40	888.52
	23.00	3.96	902.46
	26.00	3.62	914.75
	29.00	3.34	923.77
	32.00	3.13	932.79
	35.00	2.94	940.98
	38.00	2.79	946.72
	40.00	2.70	953.28
	43.00	2.58	959.84
	46.00	2.48	965.57
	49.00	2.39	970.49
	52.00	2.31	973.77
	55.00	2.24	977.87

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : ENERGY THREE, INC.
 DATE OF TEST : 11-1-84
 REFERENCE DEPTH : 3375.0

WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 SERIAL NO. : 2186

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
	58.00	2.17	981.97	
	60.00	2.13	986.07	
	63.00	2.08	989.34	
	66.00	2.03	992.62	
	69.00	1.99	995.90	
	72.00	1.94	999.18	
	75.00	1.91	1002.46	
	78.00	1.87	1005.74	
	81.00	1.84	1008.20	
	84.00	1.81	1009.84	
	86.00	1.79	1012.30	
	91.00	1.75	1015.57	
-17:27 2ND SHUT-IN	0.00	0.00	1015.57	

SUPERIOR TESTERS ENTERPRISES, INC.

D A T A S U M M A R Y

COMPANY : ENERGY THREE, INC.
DATE OF TEST : 11-1-84
DST. NO : 6

WELL NAME : HACHMEISTER #1
LOCATION : 4-11S-15W
SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1090.00
Slope of Build-up Curve (psi/log cycle):	317.08
Effective Producing Time (min):	68.00

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : ENERGY THREE, INC.
 DATE OF TEST : 11-1-84
 DST. NO : 6

WELL NAME : HACHMEISTER #1
 LOCATION : 4-11S-15W
 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY

Oil (md.ft/cp): 13.14
 Gas (md.ft/cp): 0.00

EFFECTIVE PERMEABILITY

Oil (md): 1.28
 Gas (md): 0.00

TOTAL MOBILITY (md/cp): 4.41

TOTAL COMPRESSIBILITY (psi⁻¹): 6.80E-06

ESTIMATED DAMAGE RATIO:66

CALCULATED DAMAGE RATIO:65

Reservoir Temperature (F): 0.00
 Formation Porosity :10
 Formation Thickness (ft): 10.00
 Wellbore Radius (in): 3.94
 Reservoir Compressibility (psi⁻¹): 4.80E-07
 Calculated Skin Factor : -1.88

PRODUCTION WITH DAMAGE REMOVED (bbl/D): 16.54

PRODUCTIVITY INDEX (bbl/psi):03

Final Flow Pressure (psi): 148.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 87.46

Total Flowing Time (min): 68.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1090.00

Slope of Build-up Curve (psi/log cycle): 317.08

Effective Producing Time (min): 68.00

WITNESSED BY :

TOOL OPERATOR : IVAN SUPPES

INTERPRETATION BY : SUPERIOR TESTERS INC.