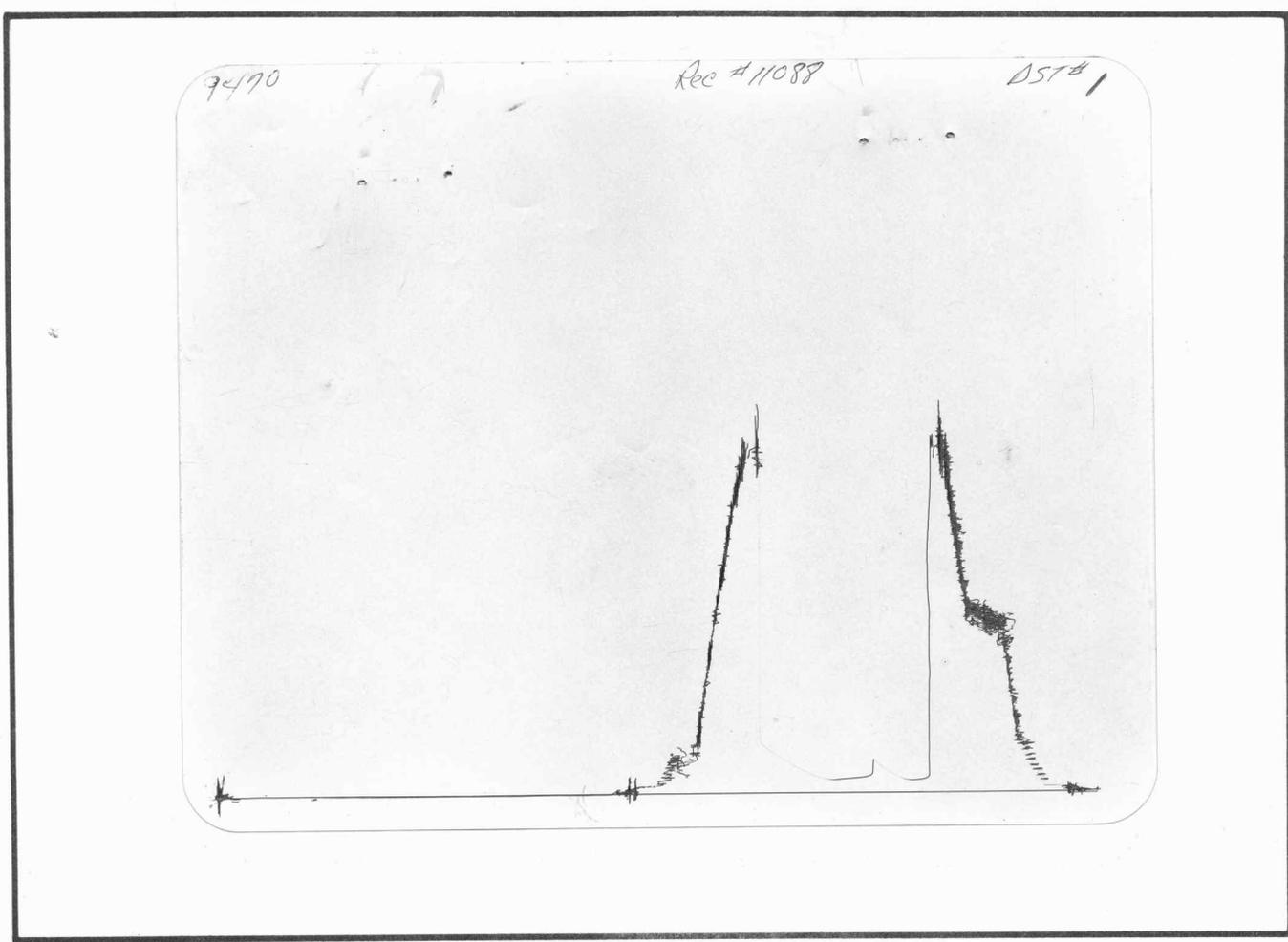


POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2078	2100	P.S.I.
(B) First Initial Flow Pressure	88	89	P.S.I.
(C) First Final Flow Pressure	55	58	P.S.I.
(D) Initial Closed-in Pressure	188	193	P.S.I.
(E) Second Initial Flow Pressure	99	120	P.S.I.
(F) Second Final Flow Pressure	55	67	P.S.I.
(G) Final Closed-in Pressure	320	308	P.S.I.
(H) Final Hydrostatic Mud	2034	2046	P.S.I.



POINT	PRESSURE		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2078	2100	P.S.I.
(B) First Initial Flow Pressure	88	89	P.S.I.
(C) First Final Flow Pressure	55	58	P.S.I.
(D) Initial Closed-in Pressure	188	193	P.S.I.
(E) Second Initial Flow Pressure	99	120	P.S.I.
(F) Second Final Flow Pressure	55	67	P.S.I.
(G) Final Closed-in Pressure	320	308	P.S.I.
(H) Final Hydrostatic Mud	2034	2046	P.S.I.

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

WELL IDENTIFICATION DATA

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
ADDRESS : 202 S. ST. FRANCIS, WICHITA LOCATION : 16-21S-22W
STATE & COUNTY : KANSAS, HODGEMAN FIELD :
ELEV.(BR) : (KB) : 2289 TEST DATE : 2-4-85

EQUIPMENT AND HOLE DATA

FORMATION TESTED : FT. SCOTT	DRILL PIPE LENGTH(ft) : 3788
TEST INT. KB : 4320 to 4350	DRILL PIPE O.D.(in) : 3.82
ANCHOR LENGTH(ft) : 30	WEIGHT PIPE LENGTH(ft) : NONE
TYPE OF TEST : Conventional	WEIGHT PIPE ID : NONE
TOTAL DEPTH(ft- <i>kb</i>) : 4350	DRILL COLLAR LENGTH(ft) : 501
MAIN HOLE SIZE(in) : 7 7/8	DRILL COLLAR I.D.(in) : 2.259
MUD WEIGHT : 9.0	TOP PACKER DEPTH(<i>kb</i>) : 4315
MUD VISCOSITY : 50	BOTTOM PACKER DEPTH(<i>kb</i>) : 4320
MUD CHLORIDES : 8000	DUAL PACKERS : YES
SURFACE CHOKE : 3/4	PACKER SIZE(in) : 6 3/4
BOTTOM CHOKE(in) : 3/4	PACKER HOLD : Yes
TOOL SIZE(O.D.) : 5 1/2	TOOL PLUG : No
TOOL JOINT SIZE(F.H.) : 4 1/2	REVERSED OUT : No
RESERVOIR TEMPERATURE(F) : 109	TEST TICKET NUMBER : 9470

EXTRA EQUIPMENT : -JARS -SAFETY JOINT

ELEMENT SERIAL NO. : 11087
RANGE : 0 - 4350 CLOCK RANGE : 12 HOURS
CAL. EQU. : 1094.24 * Defl. + 5.06

SURFACE BLOW

1st Opening : WEAK STEADY BLOW 1/4 INCH IN WATER
2nd Opening : WEAK SLIGHTLY INCREASING 1/4 TO 2 INCHES IN WATER

RECOVERY

Recovered 280 feet of GAS IN PIPE
Recovered 80 feet of SLIGHTLY OIL & GAS CUT MUD

REMARKS :

WITNESSED BY : GLENN A. TRACY TOOL OPERATOR : DAN OCHS

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-4-85 LOCATION : 16-21S-22W
 DEPTH : 4344.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 1					
Depth : 4344.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.910	2095.05	5.38	2100.44
-14:00 1ST FLOW	0.0	.081	93.69	-4.49	89.21
- 14:04	4.0	.067	78.38	-4.59	73.79
- 14:09	9.0	.062	72.90	-4.62	68.28
- 14:13	13.0	.057	67.43	-4.66	62.78
- 14:17	17.0	.056	66.34	-4.66	61.67
- 14:22	22.0	.054	64.15	-4.68	59.47
- 14:26	26.0	.054	64.15	-4.68	59.47
- 14:29	29.0	.054	64.15	-4.68	59.47
- 14:30	30.0	.053	63.06	-4.69	58.37
-14:30 END FLOW	0.0	.053	63.06	-4.69	58.37
- 14:33	3.0	.054	64.15	-4.68	59.47
- 14:36	6.0	.055	65.24	-4.67	60.57
- 14:39	9.0	.055	65.24	-4.67	60.57
- 14:42	12.0	.055	65.24	-4.67	60.57
- 14:45	15.0	.056	66.34	-4.66	61.67
- 14:48	18.0	.060	70.72	-4.64	66.08
- 14:50	20.0	.063	74.00	-4.62	69.38
- 14:53	23.0	.069	80.56	-4.57	75.99
- 14:57	27.0	.075	87.13	-4.53	82.60
- 14:59	29.0	.084	96.98	-4.47	92.51
- 15:02	32.0	.091	104.64	-4.42	100.22
- 15:05	35.0	.099	113.39	-4.36	109.03
- 15:08	38.0	.107	122.14	-4.30	117.84
- 15:11	41.0	.114	129.80	-4.25	125.55
- 15:14	44.0	.123	139.65	-4.19	135.46
- 15:17	47.0	.131	148.41	-4.13	144.27
- 15:20	50.0	.139	157.16	-4.08	153.08
- 15:23	53.0	.149	168.10	-4.01	164.10
- 15:26	56.0	.158	177.95	-3.94	174.01
- 15:29	59.0	.169	189.99	-3.86	186.12
- 15:30	60.0	.176	197.65	-3.81	193.83
-15:30 1ST SHUT-IN	0.0	.176	197.65	-3.81	193.83
-1:30 2ND FLOW	0.0	.109	124.33	-4.29	120.04
- 1:35	5.0	.086	99.17	-4.45	94.71
- 1:39	9.0	.077	89.32	-4.52	84.80
- 1:43	13.0	.072	83.85	-4.55	79.30
- 1:48	18.0	.069	80.56	-4.57	75.99
- 1:52	22.0	.067	78.38	-4.59	73.79
- 1:56	26.0	.065	76.19	-4.60	71.59

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-4-85 LOCATION : 16-215-22W
 DEPTH : 4344.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			CALC	CORR	CORRECTED
TEST NO.: 1					
- 2:01	31.0	.062	72.90	-4.62	68.28
- 2:05	35.0	.062	72.90	-4.62	68.28
- 2:10	40.0	.062	72.90	-4.62	68.28
- 2:14	44.0	.061	71.81	-4.63	67.18
- 2:18	48.0	.061	71.81	-4.63	67.18
- 2:23	53.0	.061	71.81	-4.63	67.18
- 2:27	57.0	.061	71.81	-4.63	67.18
- 2:28	58.0	.061	71.81	-4.63	67.18
- 2:30	60.0	.061	71.81	-4.63	67.18
-16:30 END FLOW	0.0	.061	71.81	-4.63	67.18
- 16:33	3.0	.061	71.81	-4.63	67.18
- 16:36	6.0	.062	72.90	-4.62	68.28
- 16:39	9.0	.062	72.90	-4.62	68.28
- 16:42	12.0	.062	72.90	-4.62	68.28
- 16:45	15.0	.064	75.09	-4.61	70.48
- 16:48	18.0	.068	79.47	-4.58	74.89
- 16:51	21.0	.070	81.66	-4.57	77.09
- 16:53	23.0	.074	86.03	-4.54	81.50
- 16:56	26.0	.077	89.32	-4.52	84.80
- 16:59	29.0	.081	93.69	-4.49	89.21
- 17:02	32.0	.085	98.07	-4.46	93.61
- 17:05	35.0	.088	101.35	-4.44	96.92
- 17:08	38.0	.093	106.83	-4.40	102.42
- 17:11	41.0	.098	112.30	-4.37	107.93
- 17:14	44.0	.102	116.67	-4.34	112.33
- 17:17	47.0	.107	122.14	-4.30	117.84
- 17:20	50.0	.112	127.62	-4.27	123.35
- 17:23	53.0	.118	134.18	-4.23	129.96
- 17:25	55.0	.124	140.75	-4.18	136.56
- 17:28	58.0	.128	145.12	-4.15	140.97
- 17:31	61.0	.134	151.69	-4.11	147.58
- 17:34	64.0	.140	158.25	-4.07	154.19
- 17:37	67.0	.145	163.73	-4.03	159.69
- 17:40	70.0	.151	170.29	-3.99	166.30
- 17:43	73.0	.156	175.76	-3.96	171.81
- 17:46	76.0	.162	182.33	-3.91	178.41
- 17:49	79.0	.168	188.89	-3.87	185.02
- 17:52	82.0	.174	195.46	-3.83	191.63
- 17:55	85.0	.181	203.12	-3.78	199.34
- 17:58	88.0	.188	210.78	-3.73	207.05

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-4-85 LOCATION : 16-21S-22W
 DEPTH : 4344.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 1					
- 18:01	91.0	.195	218.44	-3.68	214.76
- 18:04	94.0	.202	226.10	-3.63	222.47
- 18:06	96.0	.210	234.85	-3.57	231.28
- 18:09	99.0	.220	245.79	-3.50	242.29
- 18:12	102.0	.228	254.55	-3.45	251.10
- 18:15	105.0	.237	264.40	-3.38	261.01
- 18:18	108.0	.245	273.15	-3.33	269.82
- 18:21	111.0	.254	283.00	-3.26	279.74
- 18:24	114.0	.265	295.03	-3.18	291.85
- 18:27	117.0	.276	307.07	-3.11	303.96
- 18:28	118.0	.280	311.45	-3.08	308.37
-18:28 2ND SHUT-IN	0.0	.280	311.45	-3.08	308.37
-2ND HYDROSTATIC	0.0	1.861	2041.44	5.51	2046.94

SUPERIOR TESTERS ENTERPRISES, INC.

ERROR IN SUMMARY CALCULATIONS

***** CAUTION; DATA INCOMPLETE
DATA SUMMARY

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
DATE OF TEST : 2-4-85 LOCATION : 16-215-22W

RECOVERY INFORMATION

LIQUID RECOVERY Total Fluid Recovered : 80

Recovered 280 feet of GAS IN PIPE
Recovered 80 feet of SLIGHTLY OIL & GAS CUT MUD

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

FLUID PROPERTIES

	Viscosity (cp)	Compressibility (psi-1)	Pore Space Saturation
Oil			
Gas			
Water			

CALCULATED RECOVERY ANALYSIS

DST Number: 1

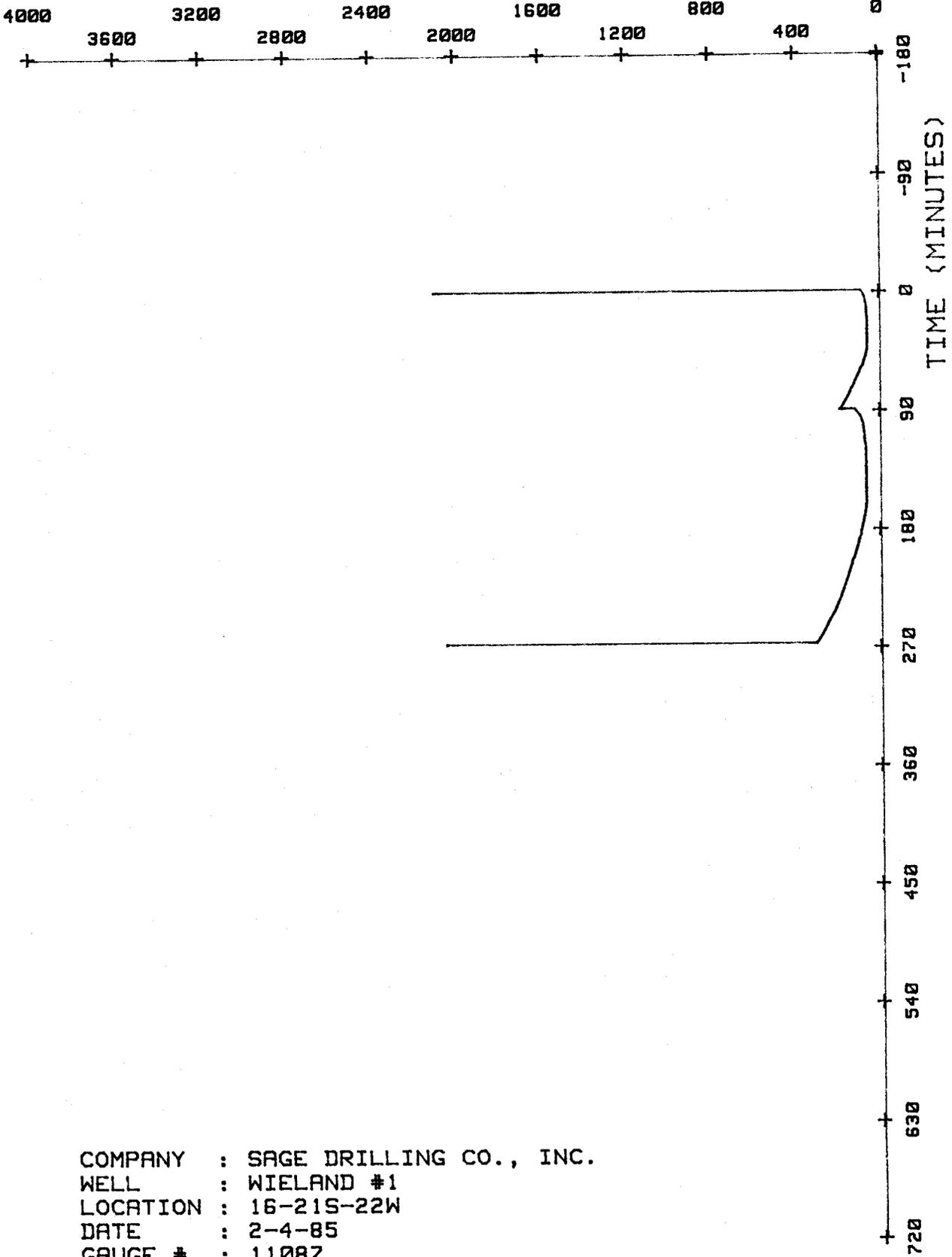
Test ticket number: 9470

Sample #	Total Feet	***** Gas ***** %	***** Gas ***** Feet	***** Oil ***** %	***** Oil ***** Feet	***** Mud ***** %	***** Mud ***** Feet
1	80	3.00	2.40	5.00	4.00	92.00	73.60
TOTAL	80	3.00	2.40	5.00	4.00	92.00	73.60

Sample #	Total Feet	**** WATER **** %	**** WATER **** Feet	Chlorides (ppm)	Resistivity (ohms)	Temperature (deg)
1	80	0.00	0.00	0.00	0.00	0.00
TOTAL	80	0.00	0.00			

INTERPRETATION BY : SUPERIOR TESTERS INC.

PRESSURE (P S I G)



COMPANY : SAGE DRILLING CO., INC.
WELL : WIELAND #1
LOCATION : 16-21S-22W
DATE : 2-4-85
GAUGE # : 11087

DATA SUMMARY

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-4-85 LOCATION : 16-21S-22W
 DST. NO : 1 SHUT-IN PERIOD :

INTERPRETIVE DATA

TRANSMISSIBILITY

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

EFFECTIVE PERMEABILITY

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

TOTAL MOBILITY (md/cp): 0.00

TOTAL COMPRESSIBILITY (psi⁻¹): 0.00E+00

ESTIMATED DAMAGE RATIO: 0.00

CALCULATED DAMAGE RATIO: 0.00

Reservoir Temperature (F): 109.00

Formation Porosity : 0.00

Formation Thickness (ft): 15.00

Wellbore Radius (in): 3.94

Reservoir Compressibility (psi⁻¹): 0.00E+00

Calculated Skin Factor : 0.00

PRODUCTION WITH DAMAGE REMOVED : 0.00

PRODUCTIVITY INDEX : 0.00

Final Flow Pressure (psi): 67.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 0.00

Total Flowing Time (min): 0.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 0.00

Slope of Build-up Curve (psi/log cycle): 0.00

Effective Producing Time (min): 0.00

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

Date 24-85 Location NW. 1/4. SW. 1/4. 16. 21. 22 Elevation 2289 KB County Hodgeman

Company Sage Drilg Co. Inc. Number of Copies _____

Address 202 South St. Francis Wichita Ks. 67202

Charts Mailed to 202 South St. Francis Wichita Ks. 67202

Invoice Mailed to 202 South St. Francis Wichita Ks. 67202

Lease Wieland Well No. #1 Formation Tested Ft. Scott Test No. 1

Depth 4350 Tested from 4320' to 4350' Packer Size 6 3/4" Anchor Length 30'

Top Packer Depth 4315 ft. Bottom Packer Depth 4320 ft. Dual Packers yes

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

Drilling Contractor Sage Drilg. Rig #9

Length Drill Pipe 3788' I.D. Drill Pipe 3.80" Tool Joint Size 4 1/2" X-hole

Length Weight Pipe none I.D. Weight Pipe none Tool Joint Size none

Length Drill Collars 501 I.D. Drill Collars 2.85" Tool Joint Size 4 1/2" H-90

Tool Open I.F.P. from 2:00 p.m. to 2:30 p.m. 30 min

Tool Closed I.C.I.P. from 2:30 p.m. to 3:30 p.m. 60 min

Tool Open F.F.P. from 3:30 p.m. to 4:30 p.m. 60 min

Tool Closed F.C.I.P. from 4:30 p.m. to 6:30 p.m. 120 min

from [B]	<u>88</u>	P.S.I. to [C]	<u>55</u>	P.S.I.
[D]	<u>188</u>			P.S.I.
from [E]	<u>99</u>	P.S.I. to [F]	<u>55</u>	P.S.I.
[G]	<u>320</u>			P.S.I.

Initial Hydrostatic Pressure [A] 2098 P.S.I. Final Hydrostatic Pressure [H] 2034 P.S.I. Maximum Temp 109 °F

Initial Blow Weak Steady blow 1/4" in Water

Final Blow Weak slightly increasing blow 1/4" in Water built to 2" in Water

Gas to Surface none Min. Oil to Surface none Min. Mut Weight 9.0 Viscosity 50

Gas Guaged none

Recovery 280' Gas in Pipe
80' slightly Oil + Gas Cut Mud 5% oil, 3% Gas 92% M_w

Remarks _____

Extra Equipment-Jars _____ Safety Joint _____ Extra Packer none Straddle none Hook Wall none

Top Recorder No. 11087 Clock no. 17577 Depth 4344 Cir. Sub none Sampler none

Bottom Recorder No. 11088 Clock No. 25851 Depth 4347 Chlorides - pits 8,000 D.S.T. _____

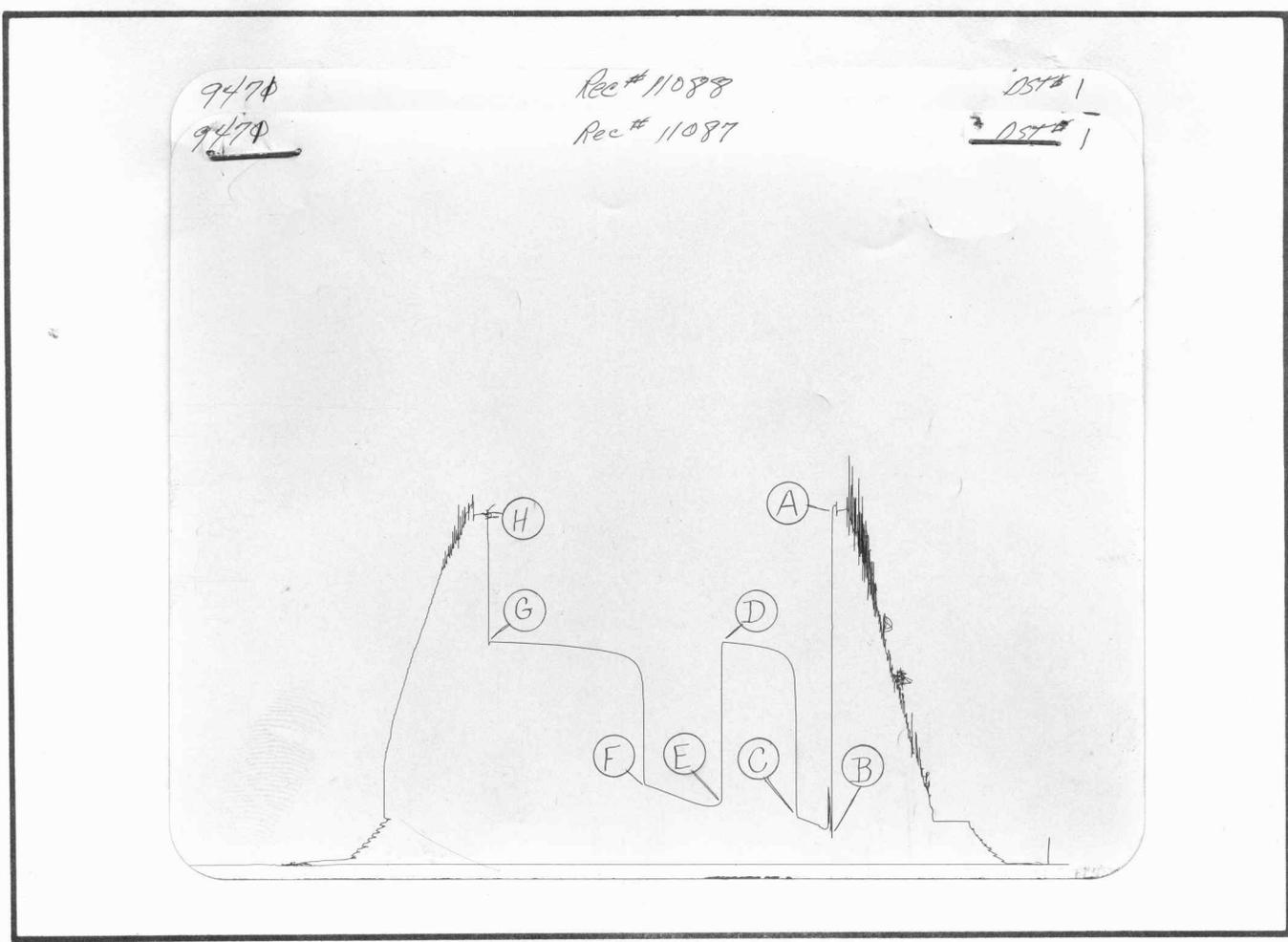
Price of Job _____

Tool Operator [Signature]

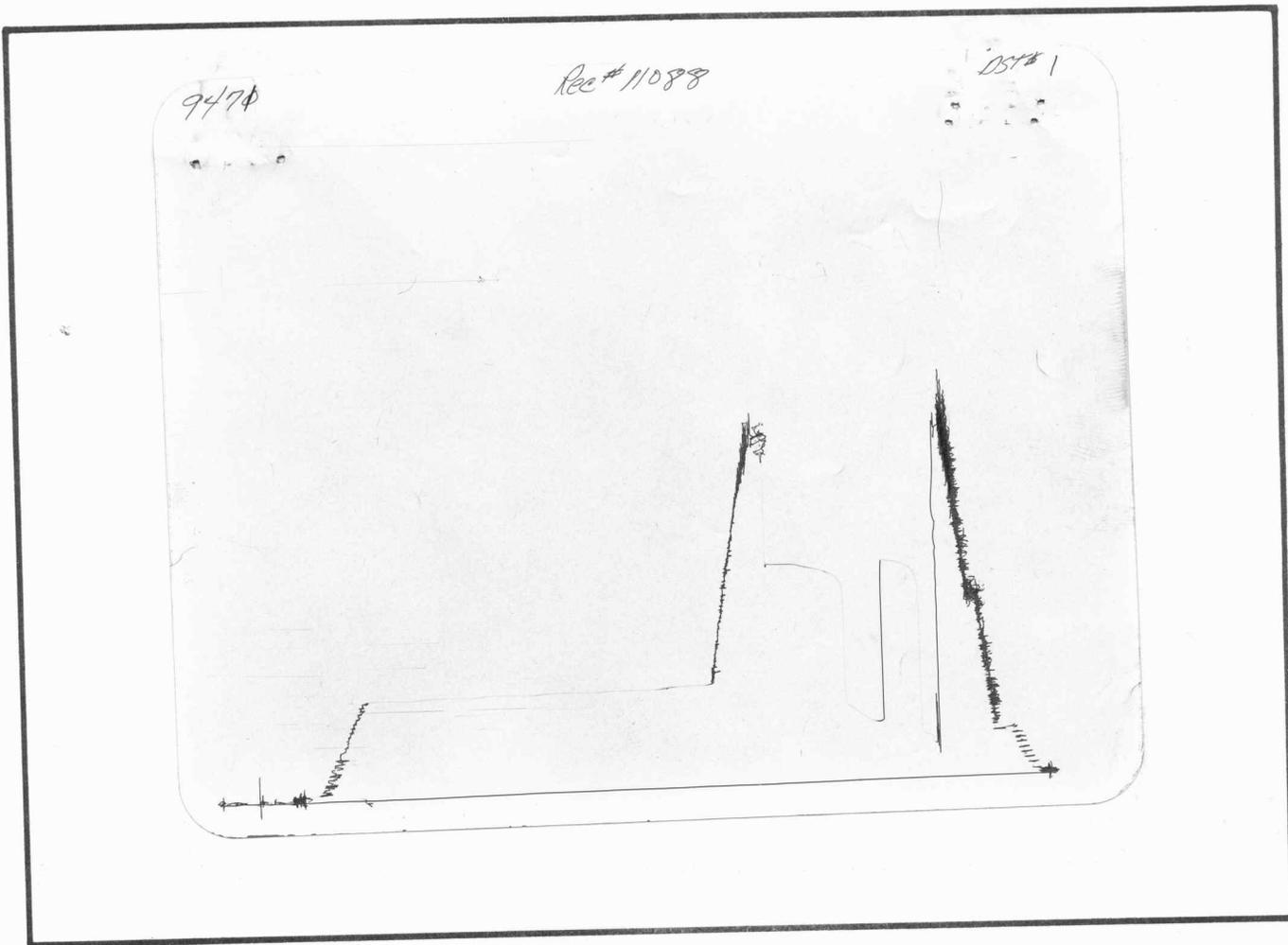
Approved By [Signature]

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Ticket N^o 9470



POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2165	2120	P.S.I.
(B) First Initial Flow Pressure	210	157	P.S.I.
(C) First Final Flow Pressure	276	276	P.S.I.
(D) Initial Closed-in Pressure	1331	1334	P.S.I.
(E) Second Initial Flow Pressure	342	376	P.S.I.
(F) Second Final Flow Pressure	475	473	P.S.I.
(G) Final Closed-in Pressure	1331	1336	P.S.I.
(H) Final Hydrostatic Mud	2144	2102	P.S.I.



POINT	PRESSURE		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>2165</u>	<u>2120</u>	P.S.I.
(B) First Initial Flow Pressure	<u>210</u>	<u>157</u>	P.S.I.
(C) First Final Flow Pressure	<u>276</u>	<u>276</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>1331</u>	<u>1334</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>342</u>	<u>376</u>	P.S.I.
(F) Second Final Flow Pressure	<u>475</u>	<u>473</u>	P.S.I.
(G) Final Closed-in Pressure	<u>1331</u>	<u>1336</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>2144</u>	<u>2102</u>	P.S.I.

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : SAGE DRILLING COMP. INC. WELL NAME : WIELAND #1
ADDRESS : 202 SOUTH ST. FRANCIS LOCATION : NW-SE-SW 16-21-22
STATE & COUNTY : KANSAS, HODGEMAN FIELD :
ELEV. (GR) : (KB) : 2289 TEST DATE : 2-5-1985

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI DRILL PIPE LENGTH(ft) : 3888
TEST INT. KB : 4394 to 4420 DRILL PIPE O.D.(in) : 3.82
ANCHOR LENGTH(ft) : 26 WEIGHT PIPE LENGTH(ft) :
TYPE OF TEST : Conventional WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-kg) : 4420 DRILL COLLAR LENGTH(ft) : 501
MAIN HOLE SIZE(in) : 7 7/8 DRILL COLLAR I.D.(in) : 2.259
MUD WEIGHT : 8.9 TOP PACKER DEPTH(kb) : 4389
MUD VISCOSITY : 55 BOTTOM PACKER DEPTH(kb) : 4394
MUD CHLORIDES : 9,000 DUAL PACKERS : YES
SURFACE CHOKE : 3/4 PACKER SIZE(in) : 6 3/4
BOTTOM CHOKE(in) : 3/4 PACKER HOLD : Yes
TOOL SIZE(O.D.) : 5 1/2 TOOL PLUG : No
TOOL JOINT SIZE(F.H.) : 4 1/2 REVERSED OUT : No
RESERVOIR TEMPERATURE(F) : 121 TEST TICKET NUMBER : 9471

EXTRA EQUIPMENT :

ELEMENT SERIAL NO. : 11087
RANGE : 0 - 4350 CLOCK RANGE : 12 HOURS
CAL. EQU. : 1094.24 * Defl. + 5.06

SURFACE BLOW

1st Opening : WEAK BUILT TO 4 INCHES INTO THE WATER
2nd Opening : BUILT TO THE BOTTOM OF THE BUCKET IN 12 MIN.

RECOVERY

Recovered 600 feet of CLEAN GASSY OIL
Recovered 360 feet of OIL AND GAS CUT MUD
Recovered 60 feet of GASSY OILY MUD
Recovered 120 feet of OIL AND MUD CUT WATER

REMARKS :

WITNESSED BY : GLEN TRACY TOOL OPERATOR : DAN OCHS

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING COMP. INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-5-1985 LOCATION : NW-SE-SW 16-21-22
 DEPTH : 4414.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.:2					
Depth : 4414.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.928	2114.75	5.34	2120.09
-16:30 1ST FLOW	0.0	.143	161.54	-4.05	157.49
- 16:33	3.0	.420	464.64	-2.09	462.56
- 16:33	3.0	.201	225.00	-3.64	221.37
- 16:36	6.0	.192	215.15	-3.70	211.45
- 16:39	9.0	.203	227.19	-3.62	223.57
- 16:44	14.0	.221	246.89	-3.50	243.39
- 16:50	20.0	.234	261.11	-3.40	257.71
- 16:55	25.0	.247	275.34	-3.31	272.03
- 16:56	26.0	.251	279.71	-3.28	276.43
-16:57 END FLOW	0.0	.251	279.71	-3.28	276.43
- 17:00	3.0	1.024	1125.56	1.91	1127.47
- 17:03	6.0	1.096	1204.34	2.25	1206.59
- 17:06	9.0	1.125	1236.08	2.38	1238.46
- 17:09	12.0	1.142	1254.68	2.46	1257.14
- 17:11	14.0	1.156	1270.00	2.53	1272.53
- 17:14	17.0	1.165	1279.85	2.57	1282.42
- 17:17	20.0	1.172	1287.51	2.60	1290.11
- 17:20	23.0	1.178	1294.07	2.63	1296.70
- 17:23	26.0	1.182	1298.45	2.65	1301.10
- 17:26	29.0	1.186	1302.83	2.67	1305.49
- 17:29	32.0	1.190	1307.20	2.69	1309.89
- 17:32	35.0	1.194	1311.58	2.71	1314.29
- 17:35	38.0	1.197	1314.86	2.72	1317.58
- 17:38	41.0	1.199	1317.05	2.73	1319.78
- 17:40	43.0	1.201	1319.24	2.74	1321.98
- 17:46	49.0	1.205	1323.62	2.76	1326.37
- 17:51	54.0	1.209	1327.99	2.78	1330.77
- 17:56	59.0	1.212	1331.28	2.79	1334.07
-17:57 1ST SHUT-IN	60.2	1.212	1331.28	2.79	1334.07
-17:57 2ND FLOW	0.0	.342	379.29	-2.64	376.65
- 18:02	5.0	.319	354.12	-2.80	351.32
- 18:07	10.0	.317	351.93	-2.82	349.12
- 18:12	15.0	.320	355.22	-2.79	352.42
- 18:17	20.0	.328	363.97	-2.74	361.23
- 18:22	25.0	.339	376.01	-2.66	373.35
- 18:27	30.0	.352	390.23	-2.57	387.67
- 18:33	36.0	.369	408.83	-2.45	406.39
- 18:38	41.0	.381	421.97	-2.36	419.60
- 18:43	46.0	.395	437.28	-2.26	435.02

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING COMP. INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-5-1985 LOCATION : NW-SE-SW 16-21-22
 DEPTH : 4414.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 2					
- 18:48	51.0	.409	452.60	-2.16	450.44
- 18:53	56.0	.420	464.64	-2.09	462.56
- 18:57	60.0	.430	475.58	-2.01	473.57
-18:57 END FLOW	0.0	.430	475.58	-2.01	473.57
- 19:00	3.0	1.010	1110.24	1.85	1112.09
- 19:03	6.0	1.071	1176.99	2.13	1179.12
- 19:06	9.0	1.102	1210.91	2.28	1213.19
- 19:09	12.0	1.118	1228.42	2.35	1230.77
- 19:11	14.0	1.131	1242.64	2.41	1245.05
- 19:14	17.0	1.138	1250.30	2.44	1252.75
- 19:17	20.0	1.144	1256.87	2.47	1259.34
- 19:20	23.0	1.151	1264.53	2.51	1267.03
- 19:23	26.0	1.154	1267.81	2.52	1270.33
- 19:26	29.0	1.159	1273.28	2.54	1275.82
- 19:29	32.0	1.163	1277.66	2.56	1280.22
- 19:32	35.0	1.167	1282.04	2.58	1284.62
- 19:35	38.0	1.170	1285.32	2.59	1287.91
- 19:38	41.0	1.173	1288.60	2.61	1291.21
- 19:40	43.0	1.175	1290.79	2.62	1293.41
- 19:46	49.0	1.181	1297.35	2.65	1300.00
- 19:50	53.0	1.185	1301.73	2.66	1304.40
- 19:56	59.0	1.188	1305.01	2.68	1307.69
- 20:01	64.0	1.193	1310.49	2.70	1313.19
- 20:06	69.0	1.197	1314.86	2.72	1317.58
- 20:11	74.0	1.199	1317.05	2.73	1319.78
- 20:16	79.0	1.201	1319.24	2.74	1321.98
- 20:21	84.0	1.203	1321.43	2.75	1324.18
- 20:26	89.0	1.203	1321.43	2.75	1324.18
- 20:31	94.0	1.206	1324.71	2.76	1327.47
- 20:36	99.0	1.208	1326.90	2.77	1329.67
- 20:41	104.0	1.210	1329.09	2.78	1331.87
- 20:46	109.0	1.211	1330.18	2.78	1332.97
- 20:52	115.0	1.212	1331.28	2.79	1334.07
- 20:57	120.0	1.214	1333.46	2.80	1336.26
-20:01 2ND SHUT-IN	122.5	1.214	1333.46	2.80	1336.26
-2ND HYDROSTATIC	0.0	1.912	2097.24	5.38	2102.62

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : SAGE DRILLING COMP. INC. WELL NAME : WIELAND #1
DATE OF TEST : 2-5-1985 LOCATION : NW-SE-SW 16-21-22

RECOVERY INFORMATION

LIQUID RECOVERY Total Fluid Recovered : 1140

Recovered 600 feet of FREE OIL (GRAVITY 35 CORRECTED)
Recovered 360 feet of OIL AND GAS CUT MUD
Recovered 60 feet of GASSY OILY MUD
Recovered 120 feet of OIL AND MUD 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	.75
Gas	.2	9.2E-6	.12
Water	.45	3.1E-6	.13

CALCULATED RECOVERY ANALYSIS

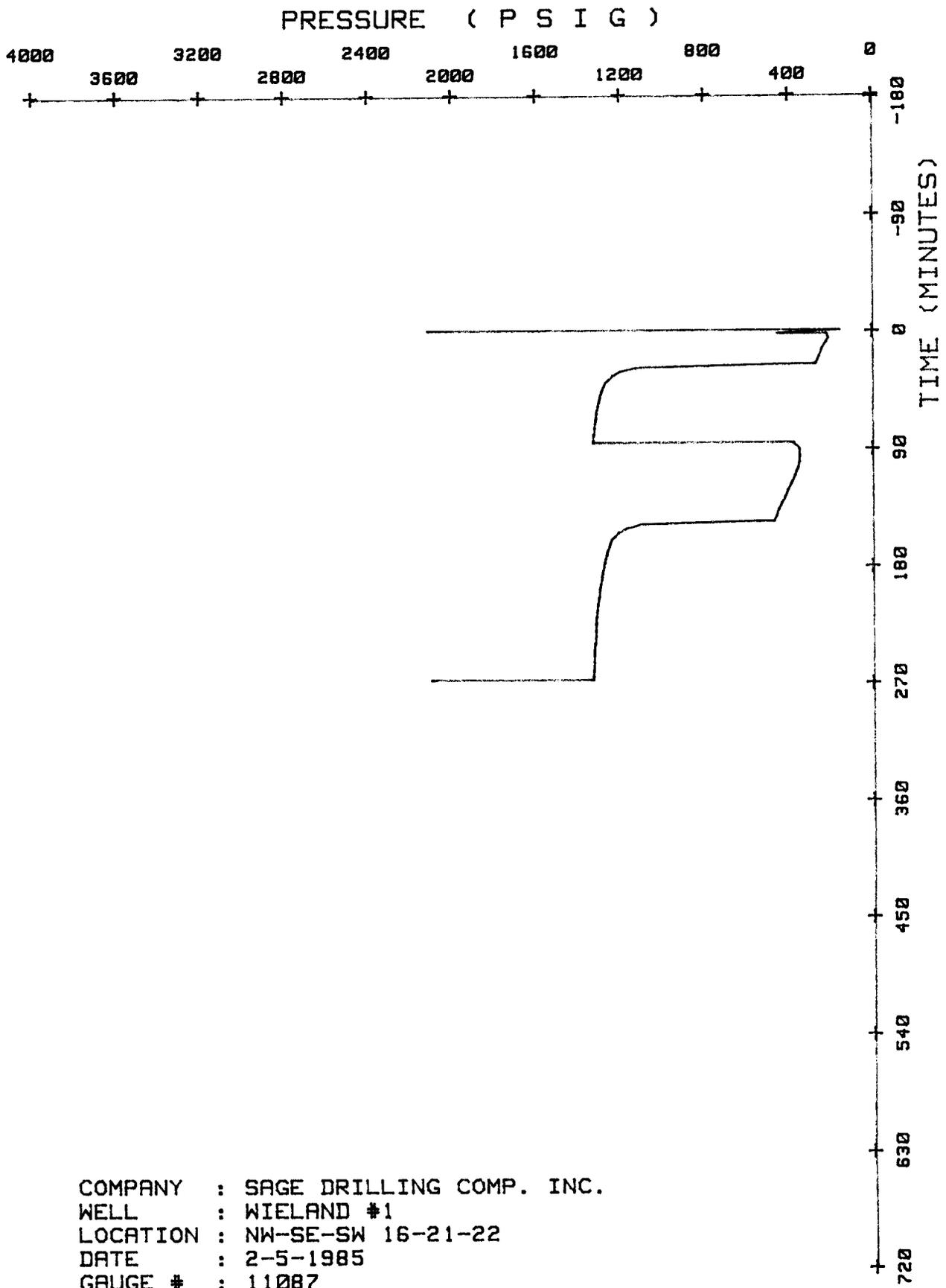
DST Number: 2

Test ticket number: 9571

Sample #	Total Feet	***** Gas ***** %	***** Gas ***** Feet	***** Oil ***** %	***** Oil ***** Feet	***** Mud ***** %	***** Mud ***** Feet
1	600	0.00	0.00	100.00	600.00	0.00	0.00
2	360	30.00	108.00	35.00	126.00	25.00	90.00
3	60	25.00	15.00	35.00	21.00	20.00	12.00
4	120	0.00	0.00	10.00	12.00	20.00	24.00
TOTAL	1140	10.79	123.00	66.58	759.00	11.05	126.00

Sample #	Total Feet	**** WATER **** %	**** WATER **** Feet	Chlorides (ppm)	Resistivity (ohms)	Temperature (deg)
1	600	0.00	0.00	0.00	0.00	0.00
2	360	10.00	36.00	17.00	.21	75.00
3	60	20.00	12.00	17.00	.21	75.00
4	120	70.00	84.00	17.00	.21	75.00
TOTAL	1140	11.58	132.00			

INTERPRETATION BY : SUPERIOR TESTERS INC.

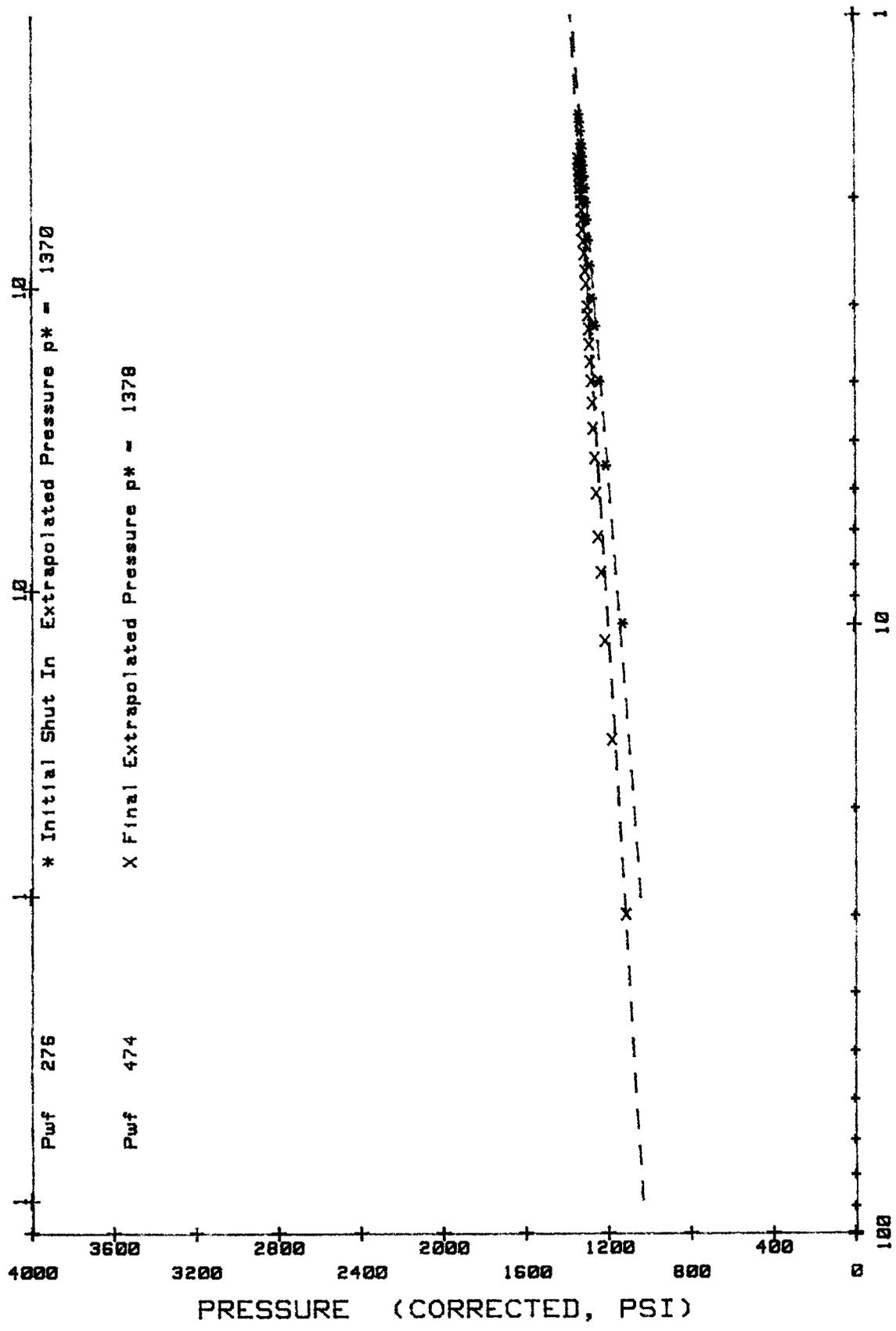


COMPANY : SAGE DRILLING COMP. INC.
 WELL : WIELAND #1
 LOCATION : NW-SE-SW 16-21-22
 DATE : 2-5-1985
 GAUGE # : 11087

LOCATION : NW-SE-SW 16-21-22 DATE : 2-5-1985 GAUGE # : 11087

Pwf 276 * Initial Shut In Extrapolated Pressure p* = 1370

Pwf 474 X Final Extrapolated Pressure p* = 1378



SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : SAGE DRILLING COMP. INC.
 WELL NAME : WIELAND #1
 LOCATION : NW-SE-SW 16-21-22
 STATE & COUNTY : KANSAS, HODGEMAN
 DATE OF TEST : 2-5-1985
 TEST INT. KB : 4394 to 4420
 TOTAL INTERVAL (ft) K.B. : 26.00
 ELEV. (GR) : (KB) : 2289
 FIELD :

ELEMENT SERIAL NO. : 11087
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG
Refer. depth :	4414.0 ft-kb		
-16:57 END FLOW	0.00	0.00	276.43
	3.00	10.00	1127.75
	6.00	5.50	1207.05
	9.00	4.00	1238.99
	12.00	3.25	1257.71
	14.00	2.93	1273.13
	17.00	2.59	1283.04
	20.00	2.35	1290.75
	23.00	2.17	1297.36
	26.00	2.04	1301.76
	29.00	1.93	1306.17
	32.00	1.84	1310.57
	35.00	1.77	1314.98
	38.00	1.71	1318.28
	41.00	1.66	1320.48
	43.00	1.63	1322.69
	49.00	1.55	1327.09
	54.00	1.50	1331.50
	59.00	1.46	1334.80
-17:57 1ST SHUT-IN	60.20	1.45	1334.80

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES INC.

D A T A S U M M A R Y

COMPANY : SAGE DRILLING COMP. INC. WELL NAME : WIELAND #1
DATE OF TEST : 2-5-1985 LOCATION : NW-SE-SW 16-21-22
DST. NO : 2 SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1370.00
Slope of Build-up Curve (psi/log cycle):	224.34
Effective Producing Time (min):	27.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : SAGE DRILLING COMP. INC.
 WELL NAME : WIELAND #1
 LOCATION : NW-SE-SW 16-21-22
 STATE & COUNTY : KANSAS, HODGEMAN
 DATE OF TEST : 2-5-1985
 TEST INT. KB : 4394 to 4420
 TOTAL INTERVAL (ft) K.B. : 26.00
 ELEV.(GR) : (KB) : 2289
 FIELD :

ELEMENT SERIAL NO. : 11087
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG
Refer. depth :	4414.0 ft-kb		
-19:57 END FLDW	0.00	0.00	473.57
	3.00	30.00	1112.33
	6.00	15.50	1179.52
	9.00	10.67	1213.66
	12.00	8.25	1231.28
	14.00	7.21	1245.59
	17.00	6.12	1253.30
	20.00	5.35	1259.91
	23.00	4.78	1267.62
	26.00	4.35	1270.93
	29.00	4.00	1276.43
	32.00	3.72	1280.84
	35.00	3.49	1285.24
	38.00	3.29	1288.55
	41.00	3.12	1291.85
	43.00	3.02	1294.05
	49.00	2.78	1300.66
	53.00	2.64	1305.07
	59.00	2.47	1308.37
	64.00	2.36	1313.88
	69.00	2.26	1318.28
	74.00	2.18	1320.48
	79.00	2.10	1322.69
	84.00	2.04	1324.89
	89.00	1.98	1324.89
	94.00	1.93	1328.19
	99.00	1.88	1330.40
	104.00	1.84	1332.60
	109.00	1.80	1333.70
	115.00	1.76	1334.80

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : SAGE DRILLING COMP. INC. WELL NAME : WIELAND #1
DATE OF TEST : 2-5-1985 LOCATION : NW-SE-SW 16-21-22
REFERENCE DEPTH : 4414.0 SERIAL NO. : 11087

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
	120.00	1.73	1337.00	
-20:01 2ND SHUT-IN	122.50	1.71	1337.00	

SUPERIOR TESTERS ENTERPRISES INC.

D A T A S U M M A R Y

COMPANY : SAGE DRILLING COMP. INC. WELL NAME : WIELAND #1
DATE OF TEST : 2-5-1985 LOCATION : NW-SE-SW 16-21-22
DST. NO : 2 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1378.00
Slope of Build-up Curve (psi/log cycle):	175.03
Effective Producing Time (min):	87.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : SAGE DRILLING COMP. INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-5-1985 LOCATION : NW-SE-SW 16-21-22
 DST. NO : 2 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY	
Oil (md.ft/cp):	145.21
Gas (md.ft/cp):	0.00
EFFECTIVE PERMEABILITY	
Oil (md):	10.90
Gas (md):	0.00
TOTAL MOBILITY (md/cp):	14.40
TOTAL COMPRESSIBILITY (psi ⁻¹):	7.76E-06
ESTIMATED DAMAGE RATIO:	1.37
CALCULATED DAMAGE RATIO:	1.28
Reservoir Temperature (F):	121.00
Formation Porosity :18
Formation Thickness (ft):	13.00
Wellbore Radius (in):	3.94
Reservoir Compressibility (psi ⁻¹):	4.80E-07
Calculated Skin Factor :	1.59
PRODUCTION WITH DAMAGE REMOVED (bbl/D):	200.30
PRODUCTIVITY INDEX (bbl/psi):14
Final Flow Pressure (psi):	276.43
APPROXIMATE RADIUS OF INVESTIGATION (ft):	124.75
Total Flowing Time (min):	87.00
EXTRAPOLATED RESERVOIR PRESSURE (psi):	1378.00
Slope of Build-up Curve (psi/log cycle):	175.03
Effective Producing Time (min):	87.00

SUPERIOR TESTERS
RR #1, Box 205B, Great Bend, Kansas

Date 2-25-75 Location NN-SE-SW-16-21-22" Elevation 2289 KB County Hodgeman

Company Sage Drilling Co. Inc. Number of Copies _____

Address 202 South St. Francis Wichita Ks. 67202

Charts Mailed to 202 South St. Francis Wichita Ks. 67202

Invoice Mailed to 202 South St. Francis Wichita Ks. 67202

Lease Wichad Well No. #1 Formation Tested _____ Test No. 2

Depth 4420 Tested from 4394 to 4420 Packer Size 6 3/4" Anchor Length 26

Top Packer Depth 4389 ft. Bottom Packer Depth 4394 ft. Dual Packers yes

Tool Joint Size 4 1/2" F.H. Tool Size 5 1/2" O.D. Hole Size 7 7/8" Dtd Packer Hold _____

Drilling Contractor Sage Drilling Rig #9

Length Drill Pipe 3888 I.D. Drill Pipe 3.80" Tool Joint Size 4 1/2" X.H.

Length Weight Pipe none I.D. Weight Pipe none Tool Joint Size none

Length Drill Collars 501 I.D. Drill Collars 2.25" Tool Joint Size 4" H-90

Tool Open I.F.P. from 4:30 p.m. to 5:00 p.m. 30 min

Tool Closed I.C.I.P. from 5:00 p.m. to 6:00 p.m. 60 min

Tool Open F.F.P. from 6:00 p.m. to 7:00 p.m. 60 min

Tool Closed F.C.I.P. from 7:00 p.m. to 9:00 p.m. 120 min

from [B] 210 P.S.I. to [C] 276 P.S.I.
[D] 1331 P.S.I.
from [E] 342 P.S.I. to [F] 475 P.S.I.
[G] 1331 P.S.I.

Initial Hydrostatic Pressure [A] 2165 P.S.I. Final Hydrostatic Pressure [H] 2144 P.S.I. Maximum Temp 121 °F

Initial Blow Weak blow decreasing 20 min start building built to 4" in H₂O

Final Blow Weak to strong built to bottom of bucket in 12 min.

Gas to Surface none Min. Oil to Surface none Min. Mut Weight 8.9 Viscosity 55

Gas Guaged none

Recovery 600' Free Oil 35 specific Gravity Corrected
360' Gas + Oil Cut Mud 30% Gas, 35% oil, 25% Mud, 10% Water
60' Gassy + Oily Mud 25% Gas, 35% oil, 20% Mud, 20% Water
120' Oil + Mud Cut Water 10% oil, 20% Mud, 70% Water

Remarks _____

Extra Equipment-Jars _____ Safety Joint _____ Extra Packer no Straddle no Hook Wall no

Top Recorder No. 11087 Clock no. 17577 Depth 4414 Clr. Sub no Sampler no

Bottom Recorder No. 11088 Clock No. 25851 Depth 4417 Chlorides - plts 9,000 D.S.T. 17,000

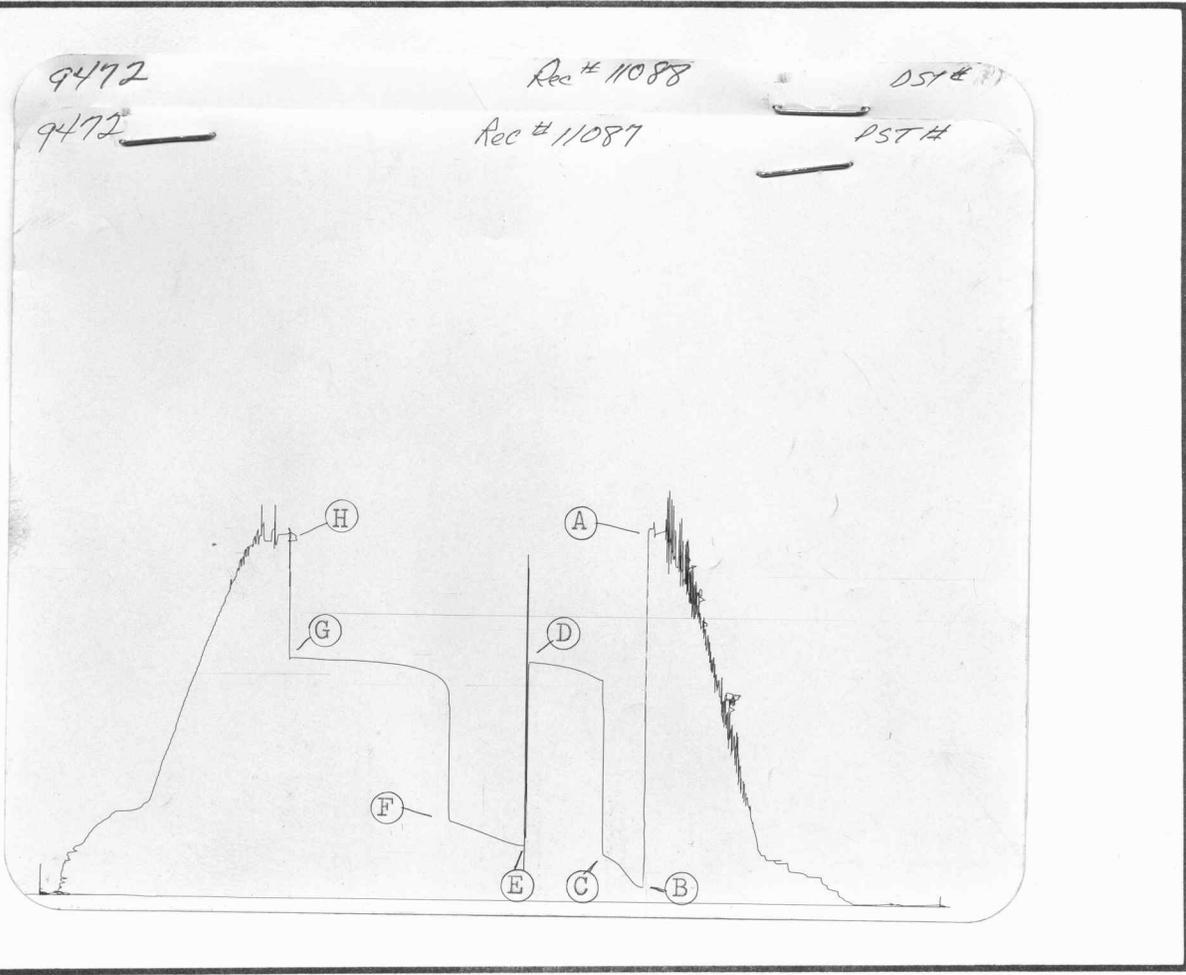
Price of Job _____

Tool Operator [Signature]

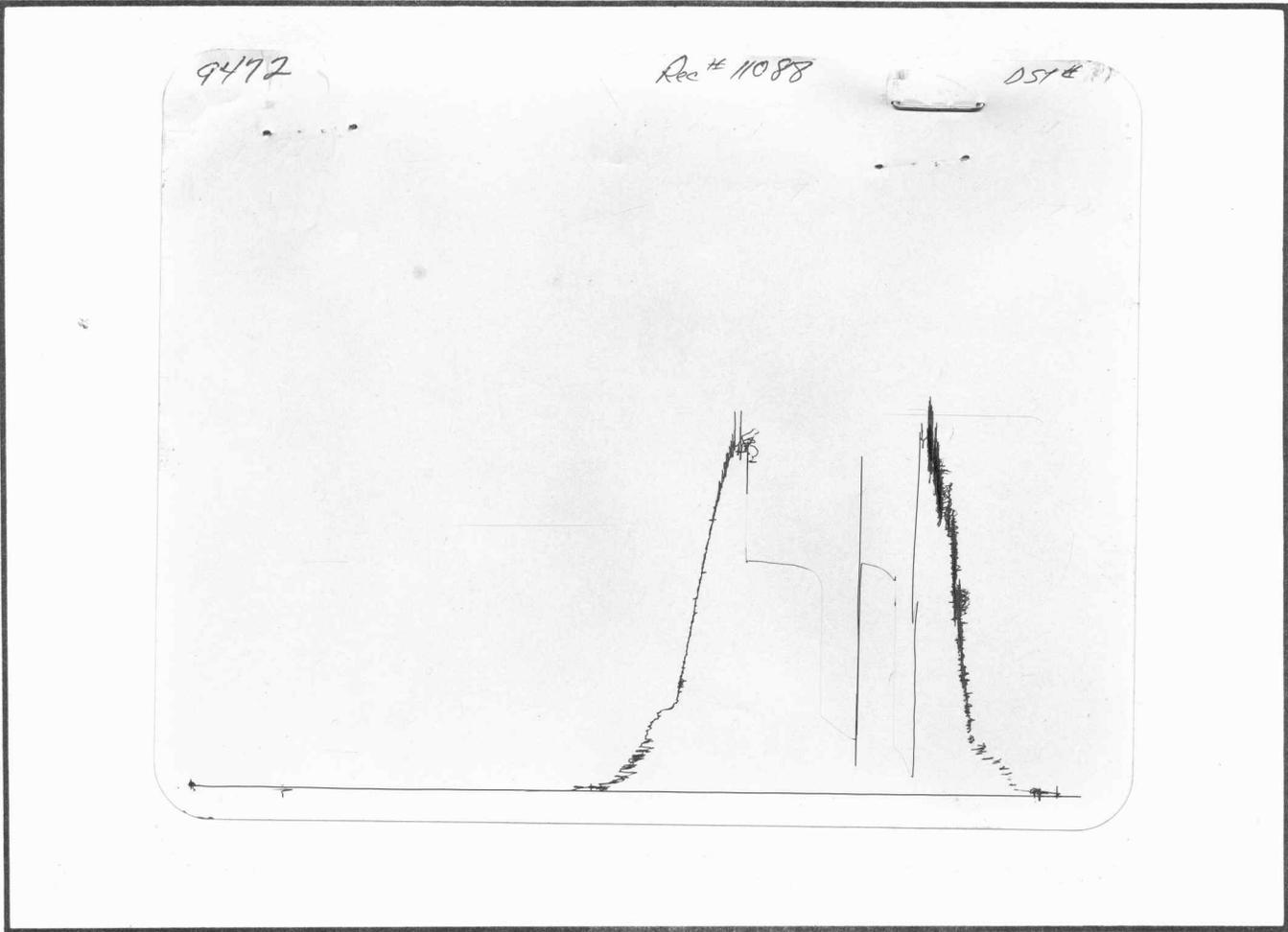
Approved By [Signature]

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 9471



POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2122	2145	P.S.I.
(B) First Initial Flow Pressure	77	89	P.S.I.
(C) First Final Flow Pressure	243	265	P.S.I.
(D) Initial Closed-in Pressure	1364	1369	P.S.I.
(E) Second Initial Flow Pressure	320	320	P.S.I.
(F) Second Final Flow Pressure	442	452	P.S.I.
(G) Final Closed-in Pressure	1364	1378	P.S.I.
(H) Final Hydrostatic Mud	2079	2090	P.S.I.



POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>2122</u>	<u>2145</u>	P.S.I.
(B) First Initial Flow Pressure	<u>77</u>	<u>89</u>	P.S.I.
(C) First Final Flow Pressure	<u>243</u>	<u>265</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>1364</u>	<u>1369</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>320</u>	<u>320</u>	P.S.I.
(F) Second Final Flow Pressure	<u>442</u>	<u>452</u>	P.S.I.
(G) Final Closed-in Pressure	<u>1364</u>	<u>1378</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>2079</u>	<u>2090</u>	P.S.I.

SUPERIOR TESTERS ENTERPRISES, INC.

WELL IDENTIFICATION DATA

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
ADDRESS : 202 S. ST.FRANCIS, WICHITA LOCATION : 16-219-22W
STATE & COUNTY : KANSAS, HODGEMAN FIELD :
ELEV.(GR) : (KB) : 2289 TEST DATE : 2-6-85

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI	DRILL PIPE LENGTH(ft) : 3888
TEST INT. KB : 4420 to 4430	DRILL PIPE O.D.(in) : 3.82
ANCHOR LENGTH(ft) : 10	WEIGHT PIPE LENGTH(ft) : NONE
TYPE OF TEST : Conventional	WEIGHT PIPE ID : NONE
TOTAL DEPTH(ft- <i>kb</i>) : 4430	DRILL COLLAR LENGTH(ft) : 501
MAIN HOLE SIZE(in) : 7 7/8	DRILL COLLAR I.D.(in) : 2.259
MUD WEIGHT : 9.0	TOP PACKER DEPTH(<i>kb</i>) : 4415
MUD VISCOSITY : 56	BOTTOM PACKER DEPTH(<i>kb</i>) : 4420
MUD CHLORIDES : 10000	DUAL PACKERS : YES
SURFACE CHOKE : 3/4	PACKER SIZE(in) : 6 3/4
BOTTOM CHOKE(in) : 3/4	PACKER HOLD : Yes
TOOL SIZE(O.D.) : 5 1/2	TOOL PLUG : No
TOOL JOINT SIZE(F.H.) : 4 1/2	REVERSED OUT : No
RESERVOIR TEMPERATURE(F) : 131	TEST TICKET NUMBER : 9472

EXTRA EQUIPMENT : -JARS -SAFETY JOINT

ELEMENT SERIAL NO. : 11087
RANGE : 0 - 4350 CLOCK RANGE : 12 HOURS
CAL. EQU. : 1094.24 * Defl. + 5.06

SURFACE BLOW

1st Opening : BUILT TO STRONG--TOOK 12 MIN.TO BOTTOM OF BUCKET
2nd Opening : BUILT TO STRONG--TOOK 16 MIN.TO BOTTOM OF BUCKET

RECOVERY

Recovered 20 feet of FREE OIL IN PIPE
Recovered 940 feet of WATER

REMARKS :

WITNESSED BY : GLENN A. TRACY TOOL OPERATOR : DAN OCHS

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-6-85 LOCATION : 16-21S-22W
 DEPTH : 4424.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	----- CORRECTED
TEST NO.:3					
Depth : 4424.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.951	2139.92	5.28	2145.20
-22:15 1ST FLOW	0.0	.081	93.69	-4.49	89.21
- 22:19	4.0	.082	94.79	-4.48	90.31
- 22:24	9.0	.113	128.71	-4.26	124.45
- 22:28	13.0	.145	163.73	-4.03	159.69
- 22:33	18.0	.187	209.68	-3.74	205.95
- 22:37	22.0	.211	235.95	-3.57	232.38
- 22:41	26.0	.227	253.45	-3.45	250.00
- 22:45	30.0	.241	268.77	-3.35	265.42
-22:45 END FLOW	0.0	.241	268.77	-3.35	265.42
- 22:48	3.0	1.158	1272.19	2.54	1274.73
- 22:51	6.0	1.162	1276.56	2.56	1279.12
- 22:54	9.0	1.172	1287.51	2.60	1290.11
- 22:57	12.0	1.181	1297.35	2.65	1300.00
- 23:00	15.0	1.191	1308.30	2.69	1310.99
- 23:03	18.0	1.199	1317.05	2.73	1319.78
- 23:05	20.0	1.205	1323.62	2.76	1326.37
- 23:08	23.0	1.212	1331.28	2.79	1334.07
- 23:11	26.0	1.217	1336.75	2.81	1339.56
- 23:14	29.0	1.222	1342.22	2.84	1345.05
- 23:17	32.0	1.225	1345.50	2.85	1348.35
- 23:20	35.0	1.229	1349.88	2.87	1352.75
- 23:23	38.0	1.232	1353.16	2.88	1356.04
- 23:26	41.0	1.235	1356.44	2.90	1359.34
- 23:29	44.0	1.237	1358.63	2.91	1361.54
- 23:32	47.0	1.240	1361.91	2.92	1364.84
- 23:35	50.0	1.241	1363.01	2.92	1365.93
- 23:37	52.0	1.242	1364.10	2.93	1367.03
- 23:40	55.0	1.244	1366.29	2.94	1369.23
- 23:43	58.0	1.244	1366.29	2.94	1369.23
-23:43 1ST SHUT-IN	0.0	1.244	1366.29	2.94	1369.23
-23:43 2ND FLOW	0.0	.291	323.48	-3.00	320.48
- 23:43	0.0	1.733	1901.37	5.22	1906.59
- 23:43	0.0	.158	177.95	-3.94	174.01
- 23:43	0.0	1.806	1981.25	5.56	1986.81
- 23:44	1.0	.290	322.39	-3.01	319.38
- 23:47	4.0	.291	323.48	-3.00	320.48
- 23:52	9.0	.295	327.86	-2.97	324.89
- 23:56	13.0	.303	336.62	-2.91	333.70
- 0:01	18.0	.314	348.65	-2.84	345.81

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-6-85 LOCATION : 16-215-22W
 DEPTH : 4424.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 3					
- 0:05	22.0	.324	359.59	-2.77	356.83
- 0:10	27.0	.334	370.54	-2.70	367.84
- 0:14	31.0	.345	382.57	-2.62	379.96
- 0:18	35.0	.356	394.61	-2.54	392.07
- 0:23	40.0	.368	407.74	-2.45	405.29
- 0:27	44.0	.379	419.78	-2.38	417.40
- 0:31	48.0	.391	432.91	-2.29	430.62
- 0:35	52.0	.401	443.85	-2.22	441.63
- 0:40	57.0	.411	454.79	-2.15	452.64
-00:40 END FLOW	0.0	.411	454.79	-2.15	452.64
- 0:43	3.0	1.104	1213.10	2.29	1215.38
- 0:46	6.0	1.136	1248.11	2.44	1250.55
- 0:49	9.0	1.155	1268.90	2.52	1271.43
- 0:52	12.0	1.170	1285.32	2.59	1287.91
- 0:55	15.0	1.179	1295.17	2.64	1297.80
- 0:58	18.0	1.187	1303.92	2.67	1306.59
- 1:01	21.0	1.195	1312.67	2.71	1315.38
- 1:03	23.0	1.201	1319.24	2.74	1321.98
- 1:06	26.0	1.206	1324.71	2.76	1327.47
- 1:09	29.0	1.211	1330.18	2.78	1332.97
- 1:12	32.0	1.216	1335.65	2.81	1338.46
- 1:15	35.0	1.220	1340.03	2.83	1342.86
- 1:18	38.0	1.222	1342.22	2.84	1345.05
- 1:21	41.0	1.226	1346.60	2.85	1349.45
- 1:24	44.0	1.227	1347.69	2.86	1350.55
- 1:27	47.0	1.229	1349.88	2.87	1352.75
- 1:30	50.0	1.232	1353.16	2.88	1356.04
- 1:33	53.0	1.233	1354.26	2.89	1357.14
- 1:35	55.0	1.235	1356.44	2.90	1359.34
- 1:38	58.0	1.236	1357.54	2.90	1360.44
- 1:41	61.0	1.237	1358.63	2.91	1361.54
- 1:44	64.0	1.239	1360.82	2.92	1363.74
- 1:47	67.0	1.240	1361.91	2.92	1364.84
- 1:50	70.0	1.241	1363.01	2.92	1365.93
- 1:53	73.0	1.241	1363.01	2.92	1365.93
- 1:56	76.0	1.243	1365.20	2.93	1368.13
- 1:59	79.0	1.243	1365.20	2.93	1368.13
- 2:02	82.0	1.243	1365.20	2.93	1368.13
- 2:05	85.0	1.243	1365.20	2.93	1368.13
- 2:08	88.0	1.243	1365.20	2.93	1368.13

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-6-85 LOCATION : 16-21S-22W
 DEPTH : 4424.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 3					
- 2:10	90.0	1.243	1365.20	2.93	1368.13
- 2:13	93.0	1.243	1365.20	2.93	1368.13
- 2:16	96.0	1.243	1365.20	2.93	1368.13
- 2:19	99.0	1.245	1367.39	2.94	1370.33
- 2:22	102.0	1.246	1368.48	2.95	1371.43
- 2:25	105.0	1.248	1370.67	2.96	1373.63
- 2:28	108.0	1.250	1372.86	2.97	1375.82
- 2:31	111.0	1.250	1372.86	2.97	1375.82
- 2:34	114.0	1.251	1373.95	2.97	1376.92
- 2:37	117.0	1.252	1375.05	2.98	1378.02
- 2:39	119.0	1.252	1375.05	2.98	1378.02
- 2:42	122.0	1.252	1375.05	2.98	1378.02
-02:42 2ND SHUT-IN	0.0	1.252	1375.05	2.98	1378.02
-2ND HYDROSTATIC	0.0	1.901	2085.21	5.41	2090.61

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
DATE OF TEST : 2-6-85 LOCATION : 16-21S-22W

RECOVERY INFORMATION

LIQUID RECOVERY Total Fluid Recovered : 960

Recovered 20 feet of FREE OIL IN PIPE
Recovered 940 feet of WATER

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

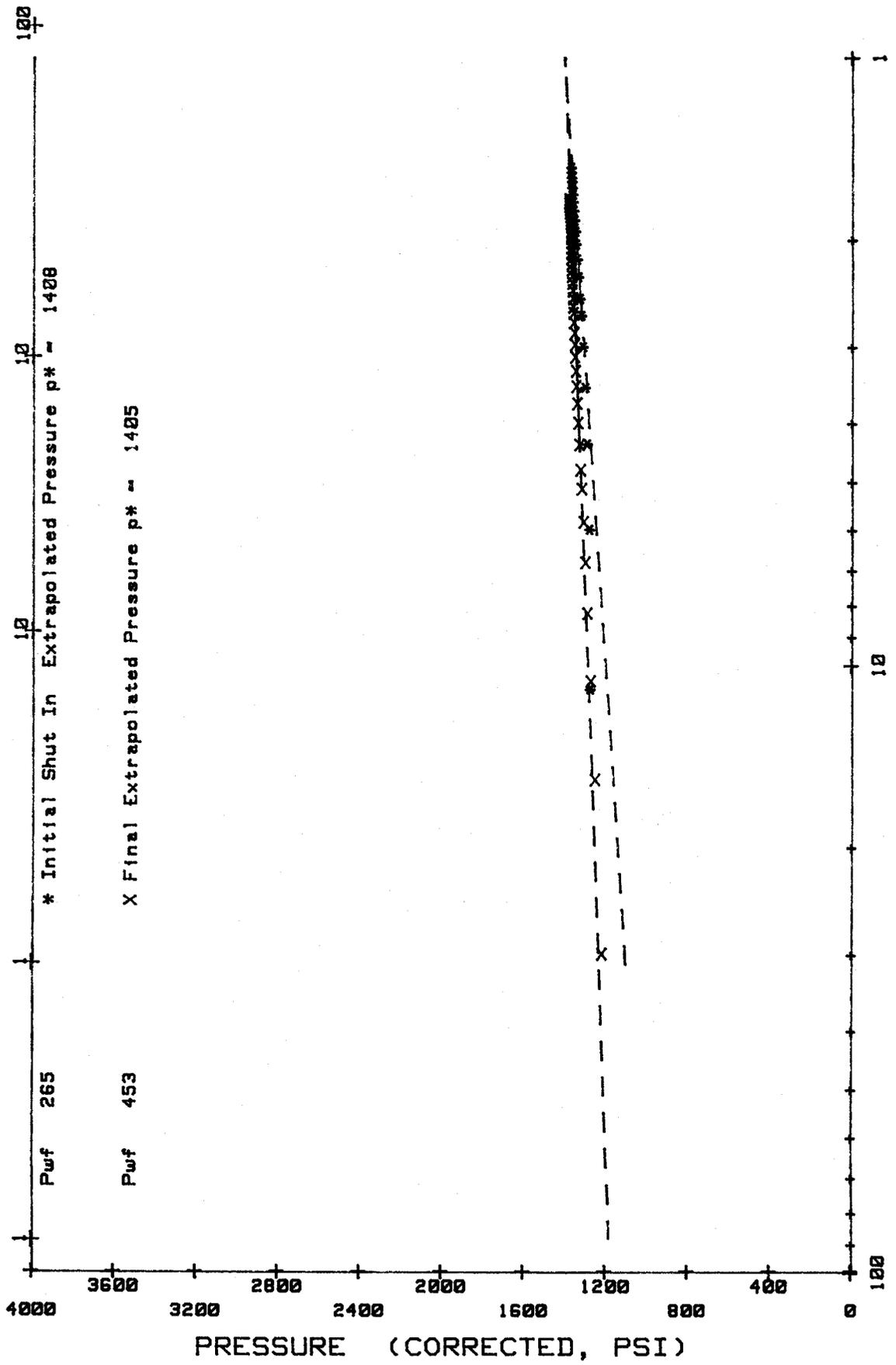
FLUID PROPERTIES

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

LOCATION : 16-21S-22W

DATE : 2-6-85

GAUGE # : 11087



PRESSURE (CORRECTED, PSI)

TIME (MINUTES) : (T+dt)/dt - (Semilog scale)

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : SAGE DRILLING CO., INC.
 WELL NAME : WIELAND #1
 LOCATION : 16-21S-22W
 STATE & COUNTY : KANSAS, HODGEMAN
 DATE OF TEST : 2-6-85
 TEST INT. KB : 4420 to 4430
 TOTAL INTERVAL (ft) K.B. : 10.00
 ELEV.(GR) : (KB) : 2289
 FIELD :

ELEMENT SERIAL NO. : 11087
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	PRESSURES CORR PSIG
Refer. depth :	4424.0 ft-kb		
-22:45 END FLOW	0.00	0.00	265.42
	3.00	11.00	1275.33
	6.00	6.00	1279.74
	9.00	4.33	1290.75
	12.00	3.50	1300.66
	15.00	3.00	1311.67
	18.00	2.67	1320.48
	20.00	2.50	1327.09
	23.00	2.30	1334.80
	26.00	2.15	1340.31
	29.00	2.03	1345.81
	32.00	1.94	1349.12
	35.00	1.86	1353.52
	38.00	1.79	1356.83
	41.00	1.73	1360.13
	44.00	1.68	1362.33
	47.00	1.64	1365.64
	50.00	1.60	1366.74
	52.00	1.58	1367.84
	55.00	1.55	1370.04
	58.00	1.52	1370.04
-23:43 1ST SHUT-IN	0.00	0.00	1370.04

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
DATE OF TEST : 2-6-85 LOCATION : 16-21S-22W
DST. NO : 3 SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1408.00
Slope of Build-up Curve (psi/log cycle):	205.00
Effective Producing Time (min):	30.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : SAGE DRILLING CO., INC.
 WELL NAME : WIELAND #1
 LOCATION : 16-215-22W
 STATE & COUNTY : KANSAS, HODGEMAN
 DATE OF TEST : 2-6-85
 TEST INT. KB : 4420 to 4430
 TOTAL INTERVAL (ft) K.B. : 10.00
 ELEV.(GR) : (KB) : 2289
 FIELD :

ELEMENT SERIAL NO. : 11087
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	PRESSURES CORR PSIG
Refer. depth :	4424.0 ft-kb		
-00:40 END FLDW	0.00	0.00	452.64
	3.00	30.00	1215.86
	6.00	15.50	1251.10
	9.00	10.67	1272.03
	12.00	8.25	1288.55
	15.00	6.80	1298.46
	18.00	5.83	1307.27
	21.00	5.14	1316.08
	23.00	4.78	1322.69
	26.00	4.35	1328.19
	29.00	4.00	1333.70
	32.00	3.72	1339.21
	35.00	3.49	1343.61
	38.00	3.29	1345.81
	41.00	3.12	1350.22
	44.00	2.98	1351.32
	47.00	2.85	1353.52
	50.00	2.74	1356.83
	53.00	2.64	1357.93
	55.00	2.58	1360.13
	58.00	2.50	1361.23
	61.00	2.43	1362.33
	64.00	2.36	1364.54
	67.00	2.30	1365.64
	70.00	2.24	1366.74
	73.00	2.19	1366.74
	76.00	2.14	1368.94
	79.00	2.10	1368.94
	82.00	2.06	1368.94
	85.00	2.02	1368.94

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-6-85 LOCATION : 16-21E-22W
 REFERENCE DEPTH : 4424.0 SERIAL NO. : 11087

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
	88.00	1.99	1368.94	
	90.00	1.97	1368.94	
	93.00	1.94	1368.94	
	96.00	1.91	1368.94	
	99.00	1.88	1371.15	
	102.00	1.85	1372.25	
	105.00	1.83	1374.45	
	108.00	1.81	1376.65	
	111.00	1.78	1376.65	
	114.00	1.76	1377.75	
	117.00	1.74	1378.85	
	119.00	1.73	1378.85	
	122.00	1.71	1378.85	
-02:42 2ND SHUT-IN	0.00	0.00	1378.85	

SUPERIOR TESTERS ENTERPRISES, INC.

D A T A S U M M A R Y

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
DATE OF TEST : 2-6-85 LOCATION : 16-21S-22W
DST. NO : 3 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1405.00
Slope of Build-up Curve (psi/log cycle):	114.77
Effective Producing Time (min):	97.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

DATA SUMMARY

COMPANY : SAGE DRILLING CO., INC. WELL NAME : WIELAND #1
 DATE OF TEST : 2-6-85 LOCATION : 16-21S-22W
 DST. NO : 3 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY

Oil (md.ft/cp): 2.34
 Gas (md.ft/cp): 0.00

EFFECTIVE PERMEABILITY

Oil (md):23
 Gas (md): 0.00

TOTAL MOBILITY (md/cp): 20.80

TOTAL COMPRESSIBILITY (psi⁻¹): 4.80E-07

ESTIMATED DAMAGE RATIO: 1.81

CALCULATED DAMAGE RATIO: 1.33

Reservoir Temperature (F): 131.00
 Formation Porosity :20
 Formation Thickness (ft): 10.00
 Wellbore Radius (in): 3.94
 Reservoir Compressibility (psi⁻¹): 4.80E-07
 Calculated Skin Factor : 2.38

PRODUCTION WITH DAMAGE REMOVED (bbl/D): 2.20

PRODUCTIVITY INDEX (bbl/psi): 0.00

Final Flow Pressure (psi): 452.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 572.01

Total Flowing Time (min): 87.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1405.00

Slope of Build-up Curve (psi/log cycle): 114.77

Effective Producing Time (min): 87.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

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

Date 2-6-85 Location _____ Elevation 2289KB County Hodgeman

Company Sage Drlg. Co. Inc Number of Copies _____

Address 202 South St. Francis Wichita Ks. 67202

Charts Mailed to 202 South St. Francis Wichita Ks. 67202

Invoice Mailed to 202 South St. Francis Wichita Ks. 67202

Lease Wieland Well No. #1 Formation Tested Mississippi Test No. 3

Depth 4430 Tested from 4420 to 4430 Packer Size 6 3/4" Anchor Length 10'

Top Packer Depth 4415 ft. Bottom Packer Depth 4420 ft. Dual Packers yes

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

Drilling Contractor Sage Drlg. Rig #9

Length Drill Pipe 3888' I.D. Drill Pipe 3.80" Tool Joint Size 4 1/2" X-hole

Length Weight Pipe none I.D. Weight Pipe none Tool Joint Size none

Length Drill Collars 501' I.D. Drill Collars 2.25" Tool Joint Size 4" H-90

Tool Open I.F.P. from 10:15 p m to 10:45 p m 30 min

Tool Closed I.C.I.P. from 10:45 p m to 11:15 p m 60 min

Tool Open F.F.P. from 11:45 p m to 12:15 p m 60 min

Tool Closed F.C.I.P. from 12:45 p m to 2:45 p m 120 min

from [B]	<u>77</u>	P.S.I. to [C]	<u>243</u>	P.S.I.
[D]	<u>1364</u>			P.S.I.
from [E]	<u>320</u>	P.S.I. to [F]	<u>442</u>	P.S.I.
[G]	<u>1364</u>			P.S.I.

Initial Hydrostatic Pressure [A] 2122 P.S.I. Final Hydrostatic Pressure [H] 2079 P.S.I. Maximum Temp 131 °F

Initial Blow Built to a strong blow Took 12 min to build to bottom & bucket

Final Blow Built to a strong blow Took 16 min to build to bottom of bucket

Gas to Surface none Min. Oil to Surface none Min. Mut Weight 9.0 Viscosity 56

Gas Guaged none

Recovery 20' Free oil in Pipe
940' Water

Remarks _____

Extra Equipment-Jars _____ Safety Joint _____ Extra Packer no Straddle no Hook Wall no

Top Recorder No. 11087 Clock no. 17577 Depth 4424 Clr. Sub no Sampler no

Bottom Recorder No. 11088 Clock No. 25851 Depth 4427 Chlorides - plts 19000 D.S.T. 22,000

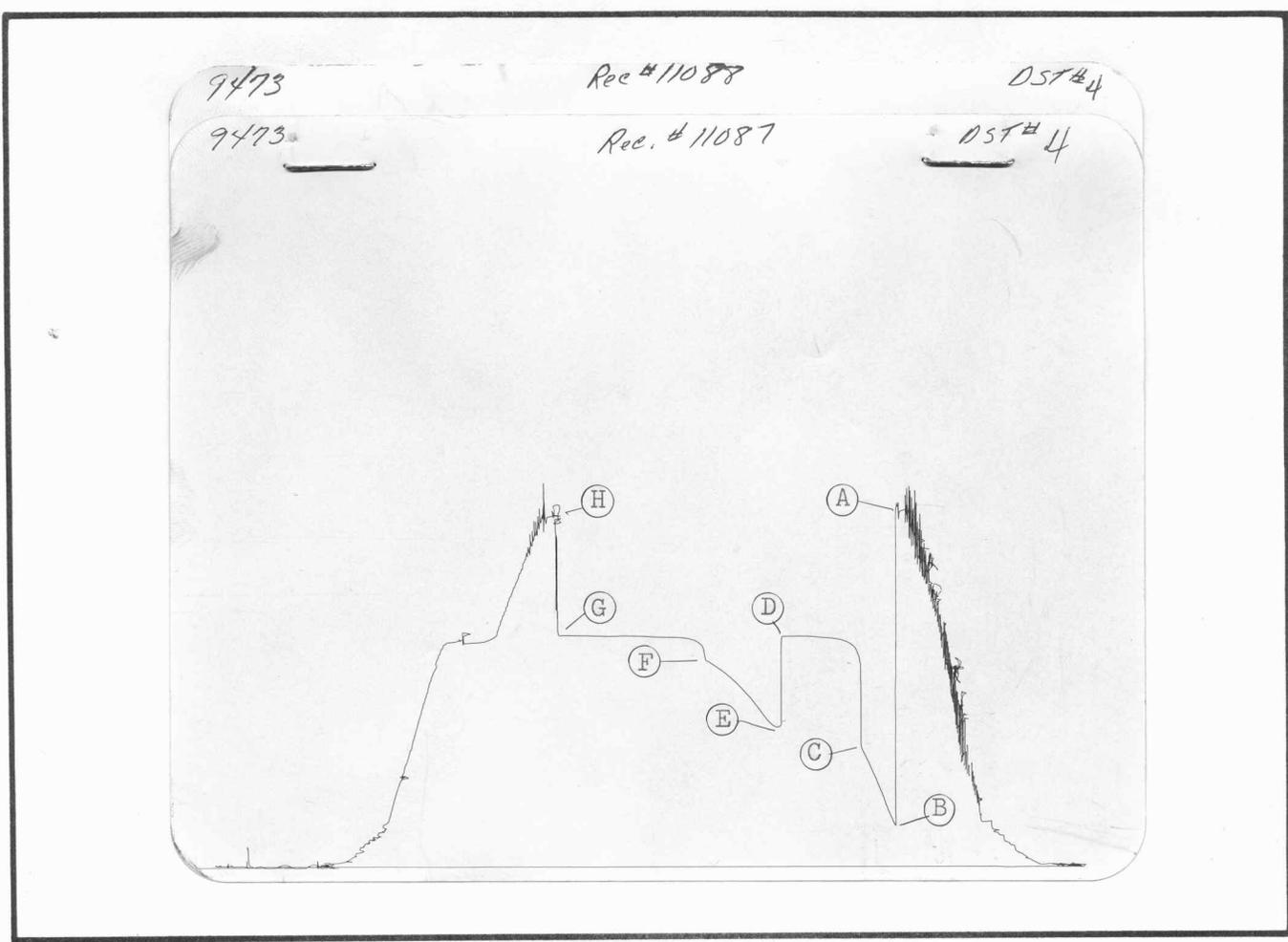
Price of Job _____

Tool Operator [Signature]

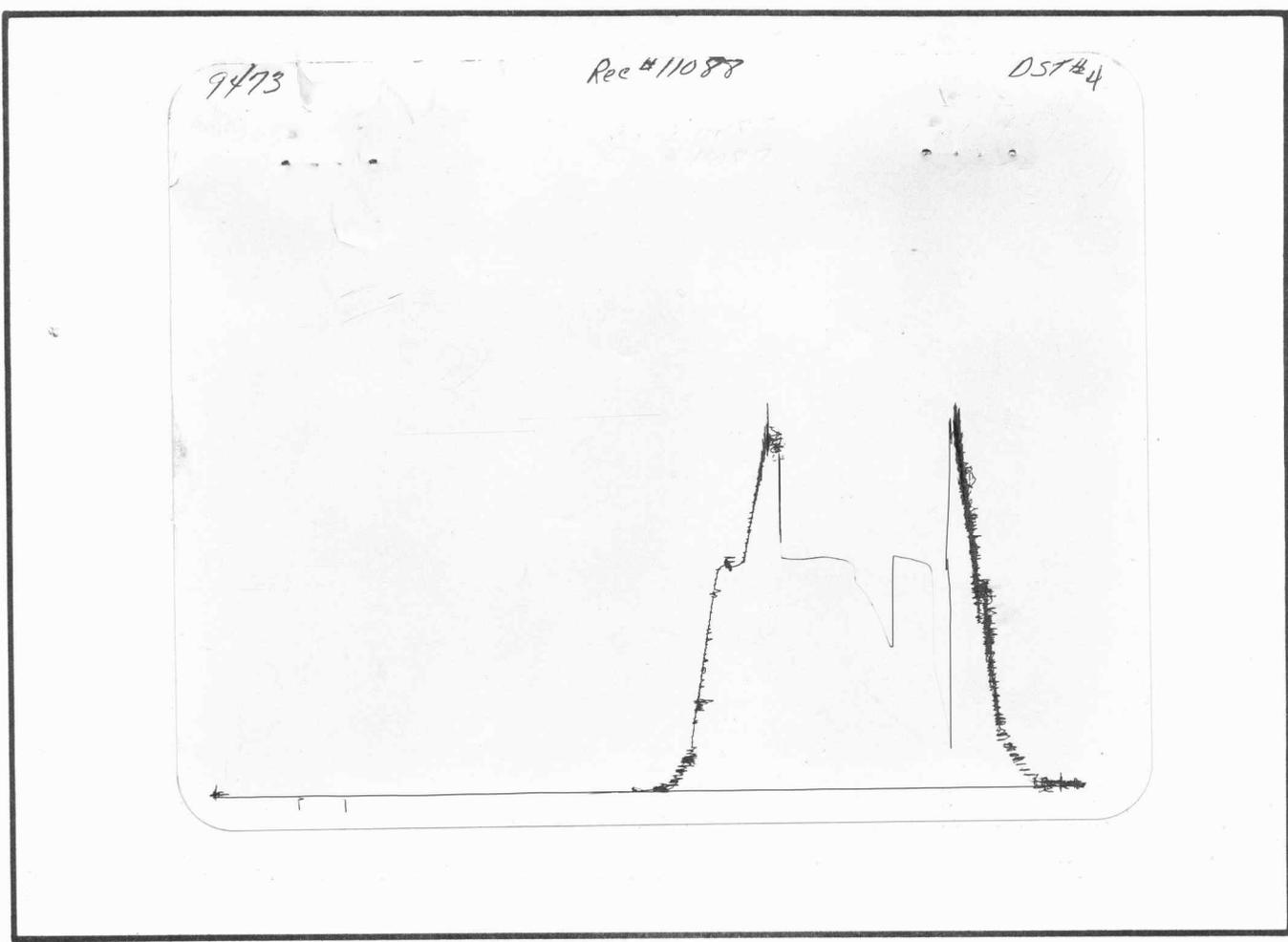
Approved By [Signature]

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 N^o 9472



POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>2122</u>	<u>2145</u>	P.S.I.
(B) First Initial Flow Pressure	<u>132</u>	<u>252</u>	P.S.I.
(C) First Final Flow Pressure	<u>717</u>	<u>731</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>1375</u>	<u>1387</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>848</u>	<u>851</u>	P.S.I.
(F) Second Final Flow Pressure	<u>1111</u>	<u>1243</u>	P.S.I.
(G) Final Closed-in Pressure	<u>1385</u>	<u>1393</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>2100</u>	<u>2114</u>	P.S.I.



POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>2122</u>	<u>2145</u>	P.S.I.
(B) First Initial Flow Pressure	<u>132</u>	<u>252</u>	P.S.I.
(C) First Final Flow Pressure	<u>717</u>	<u>731</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>1375</u>	<u>1387</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>848</u>	<u>851</u>	P.S.I.
(F) Second Final Flow Pressure	<u>1111</u>	<u>1243</u>	P.S.I.
(G) Final Closed-in Pressure	<u>1385</u>	<u>1393</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>2100</u>	<u>2114</u>	P.S.I.

SUPERIOR TESTERS ENTERPRISES, INC.

WELL IDENTIFICATION DATA

COMPANY : SAGE DRILLING CO. INC. WELL NAME : WIELAND
ADDRESS : 202 S. ST. FRANCIS LOCATION : 16-21-22W
STATE & COUNTY : KANSAS, HODGEMAN FIELD :
ELEV. (GR) : (KB) : 2289 TEST DATE : 2-7-85

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI DRILL PIPE LENGTH(ft) : 3898
TEST INT. KB : 4430 to 4445 DRILL PIPE O.D.(in) : 3.82
ANCHOR LENGTH(ft) : 15 WEIGHT PIPE LENGTH(ft) : NONE
TYPE OF TEST : Conventional WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-~~kb~~) : 4445 DRILL COLLAR LENGTH(ft) : 501
MAIN HOLE SIZE(in) : 7 7/8 DRILL COLLAR I.D.(in) : 2.259
MUD WEIGHT : 9.0 TOP PACKER DEPTH(kb) : 4425
MUD VISCOSITY : 5 BOTTOM PACKER DEPTH(kb) : 4430
MUD CHLORIDES : 11000 DUAL PACKERS : YES
SURFACE CHOKE : 3/4 PACKER SIZE(in) : 6 3/4
BOTTOM CHOKE(in) : 3/4 PACKER HOLD : Yes
TOOL SIZE(O.D.) : 5 1/2 TOOL PLUG : No
TOOL JOINT SIZE(F.H.) : 4 1/2 REVERSED OUT : YES
RESERVOIR TEMPERATURE(F) : 137 TEST TICKET NUMBER : 9473

EXTRA EQUIPMENT : -JARS -SAFETY JOINT -CIRC.SUB

ELEMENT SERIAL NO. : 11087
RANGE : 0 - 4350 CLOCK RANGE : 12 HOURS
CAL. EQU. : 1094.24 * Defl. + 5.06

SURFACE BLOW

1st Opening : STRONG BUILT TO BOTTOM IN 2 MIN.
2nd Opening : STRONG BUILT TO BOTTOM OF BUCKET IN 3 1/2 MIN.

RECOVERY

Recovered 2730 feet of WATER

REMARKS :

REVERSED WATER OUT

WITNESSED BY : GLENN TRACY TOOL OPERATOR : DAN OCHS

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING CO. INC. WELL NAME : WIELAND
 DATE OF TEST : 2-7-85 LOCATION : 16-21-22W
 DEPTH : 4439.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.:4					
Depth : 4439.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.951	2139.92	5.28	2145.20
-17:30 1ST FLOW	0.0	.229	255.64	-3.44	252.20
- 17:34	4.0	.292	324.58	-2.99	321.59
- 17:39	9.0	.362	401.18	-2.50	398.68
- 17:43	13.0	.442	488.71	-1.93	486.78
- 17:48	18.0	.515	568.59	-1.41	567.18
- 17:52	22.0	.578	637.53	-.97	636.56
- 17:57	27.0	.642	707.56	-.51	707.05
- 17:57	27.0	.664	731.63	-.36	731.28
-17:57 END FLOW	0.0	.664	731.63	-.36	731.28
- 18:00	3.0	1.172	1287.51	2.60	1290.11
- 18:03	6.0	1.208	1326.90	2.77	1329.67
- 18:06	9.0	1.222	1342.22	2.84	1345.05
- 18:09	12.0	1.231	1352.07	2.88	1354.95
- 18:12	15.0	1.238	1359.73	2.91	1362.64
- 18:15	18.0	1.243	1365.20	2.93	1368.13
- 18:18	21.0	1.248	1370.67	2.96	1373.63
- 18:21	24.0	1.250	1372.86	2.97	1375.82
- 18:24	27.0	1.252	1375.05	2.98	1378.02
- 18:26	29.0	1.254	1377.23	2.99	1380.22
- 18:30	33.0	1.255	1378.33	2.99	1381.32
- 18:32	35.0	1.256	1379.42	2.99	1382.42
- 18:35	38.0	1.259	1382.71	3.01	1385.71
- 18:38	41.0	1.259	1382.71	3.01	1385.71
- 18:41	44.0	1.260	1383.80	3.01	1386.81
- 18:44	47.0	1.260	1383.80	3.01	1386.81
- 18:47	50.0	1.261	1384.89	3.02	1387.91
- 18:50	53.0	1.261	1384.89	3.02	1387.91
- 18:53	56.0	1.261	1384.89	3.02	1387.91
- 18:56	59.0	1.261	1384.89	3.02	1387.91
- 18:59	62.0	1.261	1384.89	3.02	1387.91
- 19:00	63.0	1.261	1384.89	3.02	1387.91
-19:00 1ST SHUT-IN	0.0	1.261	1384.89	3.02	1387.91
-19:00 2ND FLOW	0.0	.773	850.91	.42	851.32
- 19:04	4.0	.769	846.53	.39	846.92
- 19:09	9.0	.790	869.51	.54	870.04
- 19:13	13.0	.828	911.09	.80	911.89
- 19:18	18.0	.871	958.14	1.11	959.25
- 19:22	22.0	.909	999.72	1.38	1001.10
- 19:27	27.0	.942	1035.83	1.53	1037.36

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING CO. INC. WELL NAME : WIELAND
 DATE OF TEST : 2-7-85 LOCATION : 16-21-22W
 DEPTH : 4439.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 4					
- 19:31	31.0	.975	1071.94	1.68	1073.63
- 19:36	36.0	1.007	1106.96	1.83	1108.79
- 19:40	40.0	1.033	1135.41	1.95	1137.36
- 19:44	44.0	1.059	1163.86	2.08	1165.93
- 19:49	49.0	1.081	1187.93	2.18	1190.11
- 19:53	53.0	1.102	1210.91	2.28	1213.19
- 19:58	58.0	1.121	1231.70	2.37	1234.07
- 20:00	60.0	1.130	1241.55	2.41	1243.96
-20:00 END FLOW	0.0	1.130	1241.55	2.41	1243.96
- 20:03	3.0	1.210	1329.09	2.78	1331.87
- 20:06	6.0	1.228	1348.78	2.86	1351.65
- 20:09	9.0	1.237	1358.63	2.91	1361.54
- 20:12	12.0	1.245	1367.39	2.94	1370.33
- 20:15	15.0	1.250	1372.86	2.97	1375.82
- 20:18	18.0	1.252	1375.05	2.98	1378.02
- 20:21	21.0	1.254	1377.23	2.99	1380.22
- 20:24	24.0	1.254	1377.23	2.99	1380.22
- 20:27	27.0	1.255	1378.33	2.99	1381.32
- 20:30	30.0	1.256	1379.42	2.99	1382.42
- 20:33	33.0	1.256	1379.42	2.99	1382.42
- 20:35	35.0	1.256	1379.42	2.99	1382.42
- 20:38	38.0	1.256	1379.42	2.99	1382.42
- 20:41	41.0	1.257	1380.52	3.00	1383.52
- 20:45	45.0	1.258	1381.61	3.00	1384.62
- 20:47	47.0	1.260	1383.80	3.01	1386.81
- 20:50	50.0	1.260	1383.80	3.01	1386.81
- 20:53	53.0	1.261	1384.89	3.02	1387.91
- 20:56	56.0	1.261	1384.89	3.02	1387.91
- 20:59	59.0	1.262	1385.99	3.02	1389.01
- 21:02	62.0	1.262	1385.99	3.02	1389.01
- 21:05	65.0	1.263	1387.08	3.03	1390.11
- 21:08	68.0	1.263	1387.08	3.03	1390.11
- 21:11	71.0	1.263	1387.08	3.03	1390.11
- 21:14	74.0	1.263	1387.08	3.03	1390.11
- 21:17	77.0	1.263	1387.08	3.03	1390.11
- 21:20	80.0	1.263	1387.08	3.03	1390.11
- 21:23	83.0	1.263	1387.08	3.03	1390.11
- 21:26	86.0	1.263	1387.08	3.03	1390.11
- 21:28	88.0	1.263	1387.08	3.03	1390.11
- 21:32	92.0	1.263	1387.08	3.03	1390.11

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SAGE DRILLING CO. INC. WELL NAME : WIELAND
 DATE OF TEST : 2-7-85 LOCATION : 16-21-22W
 DEPTH : 4439.0 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.:4					
- 21:35	95.0	1.263	1387.08	3.03	1390.11
- 21:37	97.0	1.264	1388.18	3.03	1391.21
- 21:40	100.0	1.264	1388.18	3.03	1391.21
- 21:43	103.0	1.264	1388.18	3.03	1391.21
- 21:46	106.0	1.265	1389.27	3.04	1392.31
- 21:49	109.0	1.265	1389.27	3.04	1392.31
- 21:52	112.0	1.265	1389.27	3.04	1392.31
- 21:55	115.0	1.265	1389.27	3.04	1392.31
- 21:57	117.0	1.266	1390.37	3.04	1393.41
-21:57 2ND SHUT-IN	0.0	1.266	1390.37	3.04	1393.41
-2ND HYDROSTATIC	0.0	1.923	2109.28	5.35	2114.63

SUPERIOR TESTERS ENTERPRISES, INC.

D A T A S U M M A R Y

COMPANY : SAGE DRILLING CO. INC. WELL NAME : WIELAND
DATE OF TEST : 2-7-85 LOCATION : 16-21-22W

RECOVERY INFORMATION

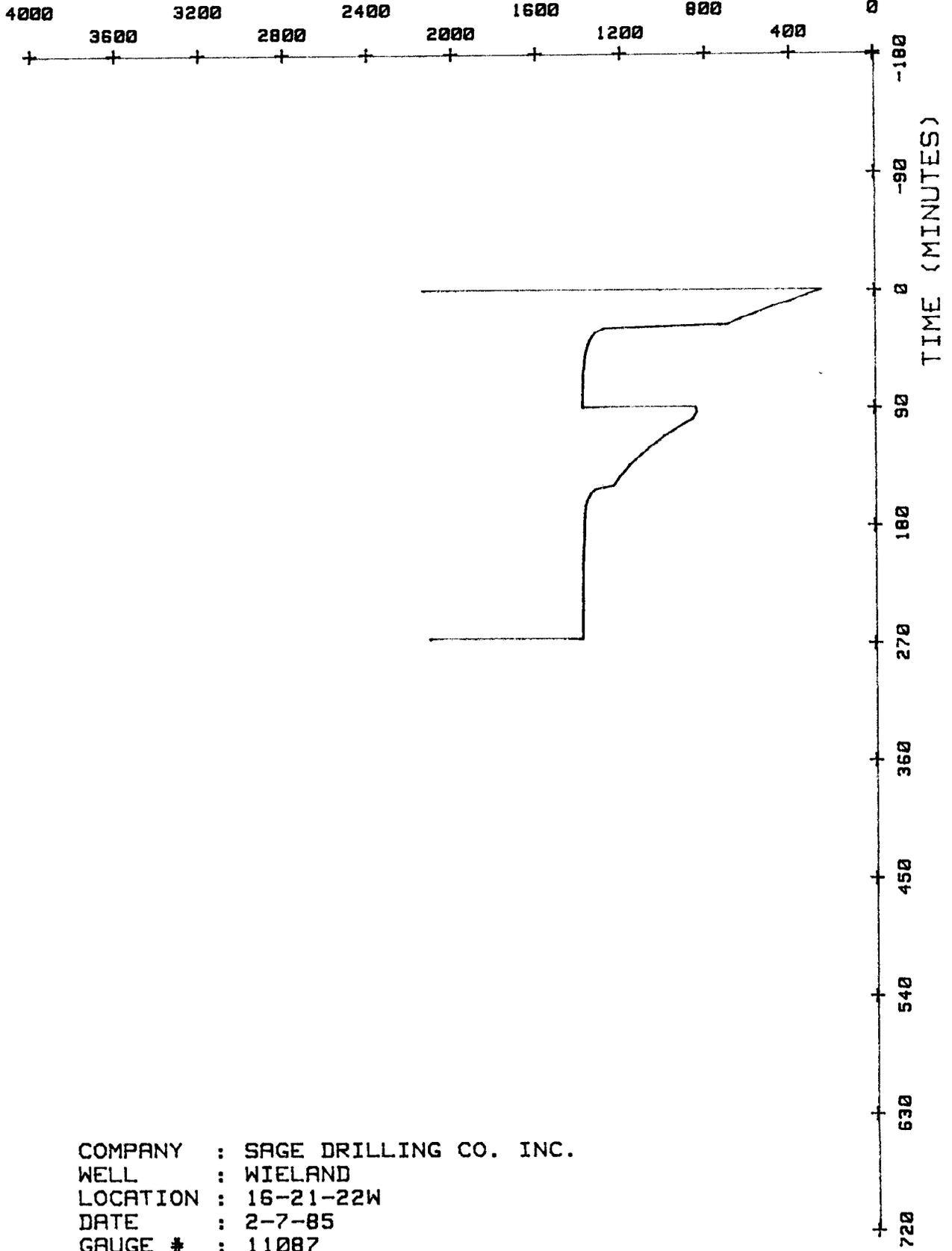
LIQUID RECOVERY Total Fluid Recovered : 2730
Recovered 2730 feet of WATER

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			
Gas			
Water			

PRESSURE (P S I G)



COMPANY : SAGE DRILLING CO. INC.
WELL : WIELAND
LOCATION : 16-21-22W
DATE : 2-7-85
GAUGE # : 11087

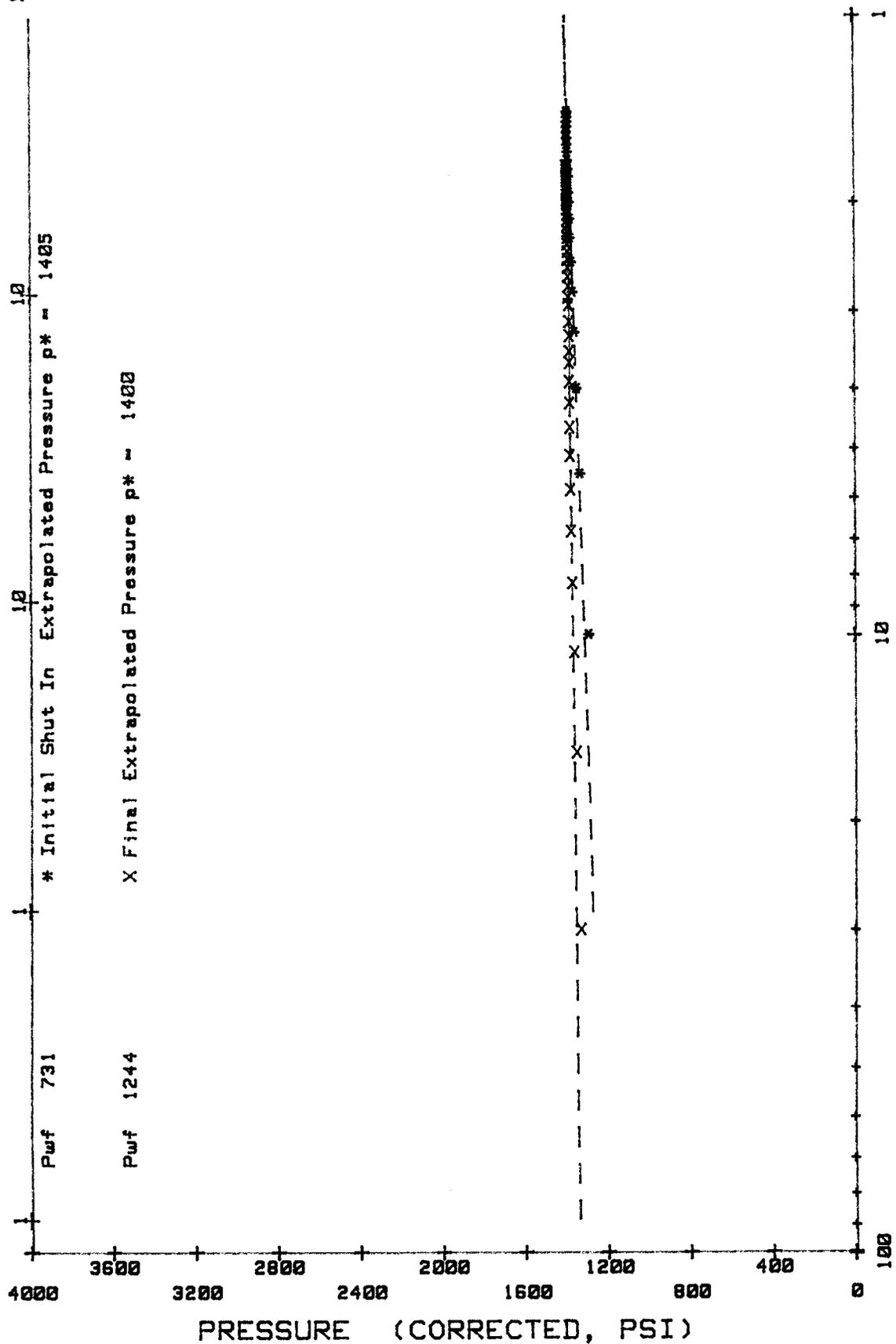
LOCATION : 16-21-22W

DATE : 2-7-85

GAUGE # : 11087

Pwf 731 * Initial Shut In Extrapolated Pressure p* = 1485

Pwf 1244 X Final Extrapolated Pressure p* = 1400



SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : SAGE DRILLING CO. INC.
 WELL NAME : WIELAND
 LOCATION : 16-21-22W
 STATE & COUNTY : KANSAS, HODGEMAN
 DATE OF TEST : 2-7-85
 TEST INT. KB : 4430 to 4445
 TOTAL INTERVAL (ft) K.B. : 15.00
 ELEV.(GR) : (KB) : 2289
 FIELD :

ELEMENT SERIAL NO. : 11087
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG
Refer. depth :	4439.0 ft-kb		
-17:57 END FLOW	0.00	0.00	731.28
	3.00	10.00	1290.75
	6.00	5.50	1330.40
	9.00	4.00	1345.81
	12.00	3.25	1355.73
	15.00	2.80	1363.44
	18.00	2.50	1368.94
	21.00	2.29	1374.45
	24.00	2.13	1376.65
	27.00	2.00	1378.85
	29.00	1.93	1381.06
	33.00	1.82	1382.16
	35.00	1.77	1383.26
	38.00	1.71	1386.56
	41.00	1.66	1386.56
	44.00	1.61	1387.67
	47.00	1.57	1387.67
	50.00	1.54	1388.77
	53.00	1.51	1388.77
	56.00	1.48	1388.77
	59.00	1.46	1388.77
	62.00	1.44	1388.77
	63.00	1.43	1388.77
-19:00 1ST SHUT-IN	0.00	0.00	1388.77

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : SAGE DRILLING CO. INC. WELL NAME : WIELAND
DATE OF TEST : 2-7-85 LOCATION : 16-21-22W
DST. NO : 4 SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1405.00
Slope of Build-up Curve (psi/log cycle):	90.01
Effective Producing Time (min):	27.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : SAGE DRILLING CO. INC.
 WELL NAME : WIELAND
 LOCATION : 16-21-22W
 STATE & COUNTY : KANSAS, HODGEMAN
 DATE OF TEST : 2-7-85
 TEST INT. KB : 4430 to 4445
 TOTAL INTERVAL (ft) K.B. : 15.00
 ELEV.(GR) : (KB) : 2289
 FIELD :

ELEMENT SERIAL NO. : 11087
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG
Refer. depth :	4439.0 ft-kb		
-20:00 END FLOW	0.00	0.00	1244.49
	3.00	30.00	1332.60
	6.00	15.50	1352.42
	9.00	10.67	1362.33
	12.00	8.25	1371.15
	15.00	6.80	1376.65
	18.00	5.83	1378.85
	21.00	5.14	1381.06
	24.00	4.63	1381.06
	27.00	4.22	1382.16
	30.00	3.90	1383.26
	33.00	3.64	1383.26
	35.00	3.49	1383.26
	38.00	3.29	1383.26
	41.00	3.12	1384.36
	45.00	2.93	1385.46
	47.00	2.85	1387.67
	50.00	2.74	1387.67
	53.00	2.64	1388.77
	56.00	2.55	1388.77
	59.00	2.47	1389.87
	62.00	2.40	1389.87
	65.00	2.34	1390.97
	68.00	2.28	1390.97
	71.00	2.23	1390.97
	74.00	2.18	1390.97
	77.00	2.13	1390.97
	80.00	2.09	1390.97
	83.00	2.05	1390.97
	86.00	2.01	1390.97

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : SAGE DRILLING CO. INC.
 DATE OF TEST : 2-7-85
 REFERENCE DEPTH : 4439.0

WELL NAME : WIELAND
 LOCATION : 16-21-22W
 SERIAL NO. : 11087

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
	88.00	1.99	1390.97	
	92.00	1.95	1390.97	
	95.00	1.92	1390.97	
	97.00	1.90	1392.07	
	100.00	1.87	1392.07	
	103.00	1.84	1392.07	
	106.00	1.82	1393.17	
	109.00	1.80	1393.17	
	112.00	1.78	1393.17	
	115.00	1.76	1393.17	
	117.00	1.74	1394.27	
-21:57 2ND SHUT-IN	0.00	0.00	1394.27	

SUPERIOR TESTERS ENTERPRISES, INC.

D A T A S U M M A R Y

COMPANY : SAGE DRILLING CO. INC. WELL NAME : WIELAND
DATE OF TEST : 2-7-85 LOCATION : 16-21-22W
DST. NO : 4 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1400.00
Slope of Build-up Curve (psi/log cycle):	30.62
Effective Producing Time (min):	87.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

DATA SUMMARY

COMPANY : SAGE DRILLING CO. INC. WELL NAME : WIELAND
 DATE OF TEST : 2-7-85 LOCATION : 16-21-22W
 DST. NO : 4 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY

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

EFFECTIVE PERMEABILITY

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

TOTAL MOBILITY (md/cp): 0.00

TOTAL COMPRESSIBILITY (psi⁻¹): 0.00E+00

ESTIMATED DAMAGE RATIO: 1.12

CALCULATED DAMAGE RATIO: 0.00

Reservoir Temperature (F): 137.00

Formation Porosity : 0.00

Formation Thickness (ft): 15.00

Wellbore Radius (in): 3.94

Reservoir Compressibility (psi⁻¹): 0.00E+00

Calculated Skin Factor : 0.00

PRODUCTION WITH DAMAGE REMOVED (bbl/D): 0.00

PRODUCTIVITY INDEX (bbl/psi): 0.00

Final Flow Pressure (psi): 1243.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 0.00

Total Flowing Time (min): 87.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1400.00

Slope of Build-up Curve (psi/log cycle): 30.62

Effective Producing Time (min): 87.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS
RR #1, Box 2958, Great Bend, Kansas

Date 2-7-84 Location NW 5E SW 16 21 22 W Elevation 2289 KB County Hodgeman

Company Sage Drilg. Co. Inc. Number of Copies _____

Address 202 South St. Francis Wichita Ks. 67202

Charts Mailed to 202 South St. Francis Wichita Ks. 67202

Invoice Mailed to 202 South St. Francis Wichita Ks. 67202

Lease Wieland Well No. #1 Formation Tested Mississippi Test No. 4

Depth 4445 Tested from 4430 to 4445 Packer Size 6 3/4" Anchor Length 15'

Top Packer Depth 4425 ft. Bottom Packer Depth 4430 ft. Dual Packers yes

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

Drilling Contractor Sage Drilg. Co. Rig #9

Length Drill Pipe 3898 I.D. Drill Pipe 3.80" Tool Joint Size 4 1/2" X-hole

Length Weight Pipe none I.D. Weight Pipe none Tool Joint Size none

Length Drill Collars 501' I.D. Drill Collars 2.25" Tool Joint Size 4" H-90

Tool Open I.F.P. from 5:30 p m to 6:00 p m 30 min

Tool Closed I.C.I.P. from 6:00 p m to 7:00 p m 60 min

Tool Open F.F.P. from 7:00 p m to 8:00 p m 60 min

Tool Closed F.C.I.P. from 8:00 p m to 10:00 p m 120 min

from [B]	<u>132</u>	P.S.I. to [C]	<u>717</u>	P.S.I.
[D]	<u>1375</u>			P.S.I.
from [E]	<u>848</u>	P.S.I. to [F]	<u>1111</u>	P.S.I.
[G]	<u>1385</u>			P.S.I.

Initial Hydrostatic Pressure [A] 2122 P.S.I. Final Hydrostatic Pressure [H] 2100 P.S.I. Maximum Temp 137 °F

Initial Blow Strong built to bottom in 2 min.

Final Blow Strong built to bottom of bucket in 3 1/2 min.

Gas to Surface none Min. Oil to Surface none Min. Mut Weight 9.0 Viscosity 57

Gas Guaged none

Recovery 2,730' Ft. Water

Remarks Reversed water out

Extra Equipment-Jars _____ Safety Joint _____ Extra Packer no Straddle no Hook Wall no

Top Recorder No. 11087 Clock no. 17577 Depth 4439 Clr. Sub 35.00 Sampler no

Bottom Recorder No. 11088 Clock No. 25851 Depth 4442 Chlorides - plts 11,000 D.S.T. 22,000

Price of Job _____

Tool Operator _____

Approved By Glenn A. Tracy

Ticket N^o 9473

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.