

Superior Testers Enterprises, Inc.

R.R. 3, Box 295B, Great Bend, Kansas 67530

(316) 792-6902

Date 7-8-1991 Location C.S.W-SE 21-27-10^SW Elevation 1727KB County KINGMAN

Company SUNRISE OPERATING COMPANY INC. Number of Copies 5

Charts Mailed to 8150 North EXPRESSWAY-Suite 645-DALLAS TEXAS 75206

Drilling Contractor STERLING Drilling Company Rig #2

Length Drill Pipe 3675 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 333 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X.H.

Top Packer Depth 4021 Bottom Packer Depth 4026 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 4026 TO 4150 ANCHOR LENGTH 124 TOTAL DEPTH 4150 Hole Size 7 7/8

LEASE & WELL NO. McNAMEE # 1-21 FORMATION TESTED Lower MISSISSIPPI TEST NO. 2

Mud Weight 9.3 Viscosity 52 Water Loss 10.4 Chlorides - Pits 10000 D.S.T. 33000

Maximum Temp. 128 °F Initial Hydrostatic Pressure (A) 2192 P.S.I. Final Hydrostatic Pressure (H) 2077 P.S.I.

Tool Open I.F.P. from 7:15 P.m to 7:45 P.m 30 min from [B] 130 P.S.I. to [C] 115 P.S.I.

Tool Closed I.C.I.P. from 7:45 P.m to 8:15 P.m 30 min [D] 1288 P.S.I.

Tool Open F.F.P. from 8:15 P.m to 9:15 P.m 60 min from [E] 144 P.S.I. to [F] 159 P.S.I.

Tool Closed F.C.I.P. from 9:15 P.m to 10:45 P.m 90 min [G] 1432 P.S.I.

Initial Blow WEAK building blow - built to 8 inches into the water

Final Blow WEAK building blow - built to 6 inches into the water

Total Feet Recovered 160 Gravity of Oil _____ Corrected _____

350 Feet of GAS in the PIPE % Gas _____ % Oil _____ % Mud _____ % Water _____

100 Feet of Very slightly oil cut mud 0% Gas 2% Oil 50% Mud 48% Water

30 Feet of muddy water with a show of oil 0% Gas 1% Oil 20% Mud 79% Water

30 Feet of muddy water with a trace of oil 0% Gas Traces% Oil 25% Mud 75% Water

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water

____ Feet of _____ % Gas _____ % Oil _____ % Mud _____ % Water

____ Feet of 184 _____ % Gas _____ % Oil _____ % Mud _____ % Water

Remarks _____

Extra Equipment - Jars YES Safety Joint YES Extra Packer NONE Straddle NONE Hook Wall NONE

Top Recorder No. 906 Clock No. 47441 Depth 4144 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 13561 Clock No. 47442 Depth 4147 Insurance NONE

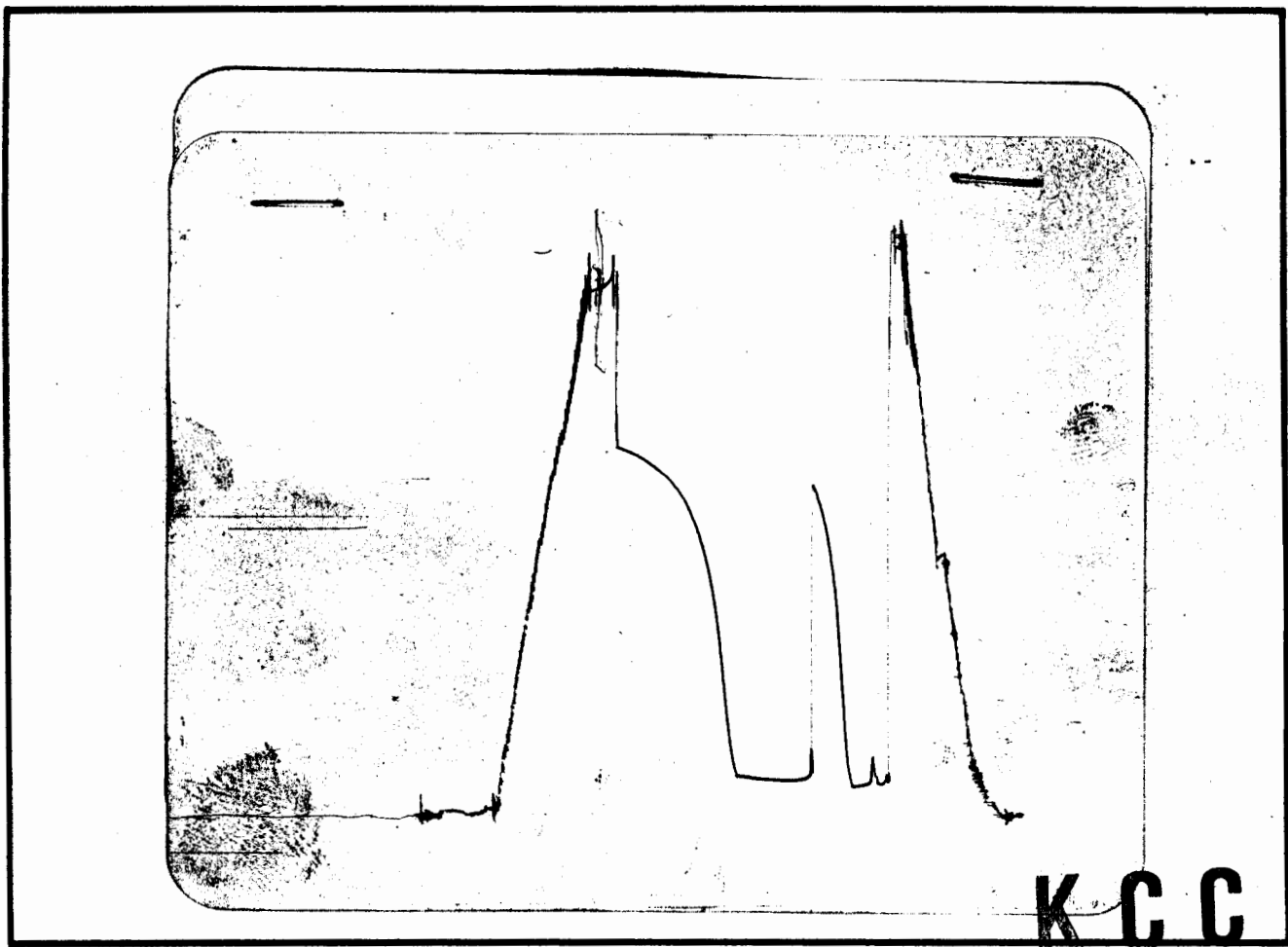
Price of Job _____

Tool Operator Jane Studig

Approved By _____

No 10914

Superior Testers Enterprises, Inc. shall not be liable for damage of any kind to the property or personnel of the one for whom a test is made, or 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.

JUL 21 1991

POINT	PRESSURE		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2192	2246	P.S.I.
(B) First Initial Flow Pressure	130	126	P.S.I.
(C) First Final Flow Pressure	115	108	P.S.I.
(D) Initial Closed-in Pressure	1288	1277	P.S.I.
(E) Second Initial Flow Pressure	144	141	P.S.I.
(F) Second Final Flow Pressure	159	146	P.S.I.
(G) Final Closed-in Pressure	1432	1419	P.S.I.
(H) Final Hydrostatic Mud	2077	2060	P.S.I.

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : SUNRISE OPERATING COMPANY WELL NAME : McNAMEE #1-21
ADDRESS : 8150 N.EXPRESSWAY,DALLAS LOCATION : C-SW-SE 21-27S-10W
STATE & COUNTY : KANSAS,KINGMAN FIELD :
ELEV.(GR) : 1718 (KB) : 1727 TEST DATE : 7-8-1991

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI DRILL PIPE LENGTH(ft) : 3675
TEST INT. KB : 4026 to 4150 DRILL PIPE O.D.(in) : 3.82
ANCHOR LENGTH(ft) : 124 WEIGHT PIPE LENGTH(ft) :
TYPE OF TEST : Conventional WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-kb) : 4150 DRILL COLLAR LENGTH(ft) : 333
MAIN HOLE SIZE(in) : 7 7/8 DRILL COLLAR I.D.(in) : 2.259
MUD WEIGHT : 9.2 TOP PACKER DEPTH(kb) : 4021
MUD VISCOSITY : 52 BOTTOM PACKER DEPTH(kb) : 4026
MUD CHLORIDES : 10000 DUAL PACKERS :
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) : 128 TEST TICKET NUMBER : 10914

EXTRA EQUIPMENT : -JARS -SAFETY JOINT

KCC

JUL 21 1994

ELEMENT SERIAL NO. : 906
RANGE : 0 - 2875 CLOCK RANGE : 12 HOURS
CAL. EQU. : 720.06 * Defl. + 3.83

SURFACE BLOW

1st Opening : WEAK BLOW BUILT TO 8 INCHES INTO THE WATER
2nd Opening : WEAK BLOW BUILT TO 6 INCHES INTO THE WATER

RECOVERY

Recovered 350 feet of GAS IN THE PIPE
Recovered 100 feet of VERY SLIGHTLY OIL CUT MUD
Recovered 30 feet of MUDDY WATER WITH A SHOW OF OIL
Recovered 30 feet of MUDDY WATER WITH A TRACE OF OIL

REMARKS :

WITNESSED BY : STEVE McCLAIN TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SUNRISE OPERATING COMPANY WELL NAME : McNAMEE #1-21
 DATE OF TEST : 7-8-1991 LOCATION : C-SW-SE 21-27S-10W
 DEPTH : 4144.0 SERIAL NO. : 906

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	----- CORRECTED
TEST NO.:2					
Depth : 4144.0 ft-kb					
-1ST HYDROSTATIC	0.0	3.115	2246.81	-.40	2246.41
-7:15 1ST FLOW	0.0	.174	129.12	-2.85	126.27
- 7:20	5.0	.167	124.08	-2.89	121.19
- 7:25	10.0	.169	125.52	-2.88	122.64
- 7:30	15.0	.160	119.04	-2.93	116.11
- 7:35	20.0	.153	114.00	-2.97	111.03
- 7:40	25.0	.150	111.84	-2.99	108.85
- 7:45	30.0	.150	111.84	-2.99	108.85
-7:45 END FLOW	0.0	.150	111.84	-2.99	108.85
- 7:48	3.0	.241	177.37	-2.48	174.89
- 7:51	6.0	.447	325.70	-1.31	324.38
- 7:54	9.0	.759	550.36	.44	550.80
- 7:57	12.0	1.062	768.53	2.15	770.68
- 8:00	15.0	1.256	908.22	3.24	911.47
- 8:03	18.0	1.411	1019.83	3.88	1023.71
- 8:06	21.0	1.524	1101.20	3.69	1104.89
- 8:09	24.0	1.614	1166.00	3.54	1169.54
- 8:12	27.0	1.685	1217.13	3.42	1220.55
- 8:15	30.0	1.739	1256.01	3.33	1259.34
- 8:17	32.0	1.764	1274.01	3.29	1277.30
-8:17 1ST SHUT-IN	0.0	1.764	1274.01	3.29	1277.30
-8:17 2ND FLOW	0.0	.195	144.24	-2.73	141.51
- 8:22	5.0	.188	139.20	-2.77	136.43
- 8:27	10.0	.182	134.88	-2.81	132.08
- 8:32	15.0	.178	132.00	-2.83	129.17
- 8:37	20.0	.178	132.00	-2.83	129.17
- 8:42	25.0	.179	132.72	-2.82	129.90
- 8:47	30.0	.180	133.44	-2.82	130.62
- 8:52	35.0	.183	135.60	-2.80	132.80
- 8:57	40.0	.185	137.04	-2.79	134.25
- 9:02	45.0	.188	139.20	-2.77	136.43
- 9:07	50.0	.192	142.08	-2.75	139.33
- 9:12	55.0	.197	145.68	-2.72	142.96
- 9:16	59.0	.202	149.28	-2.69	146.59
-9:16 END FLOW	0.0	.202	149.28	-2.69	146.59
- 9:19	3.0	.291	213.37	-2.19	211.18
- 9:22	6.0	.443	322.82	-1.34	321.48
- 9:25	9.0	.630	457.47	-.28	457.18
- 9:28	12.0	.834	604.36	.87	605.22
- 9:31	15.0	1.008	729.65	1.85	731.49

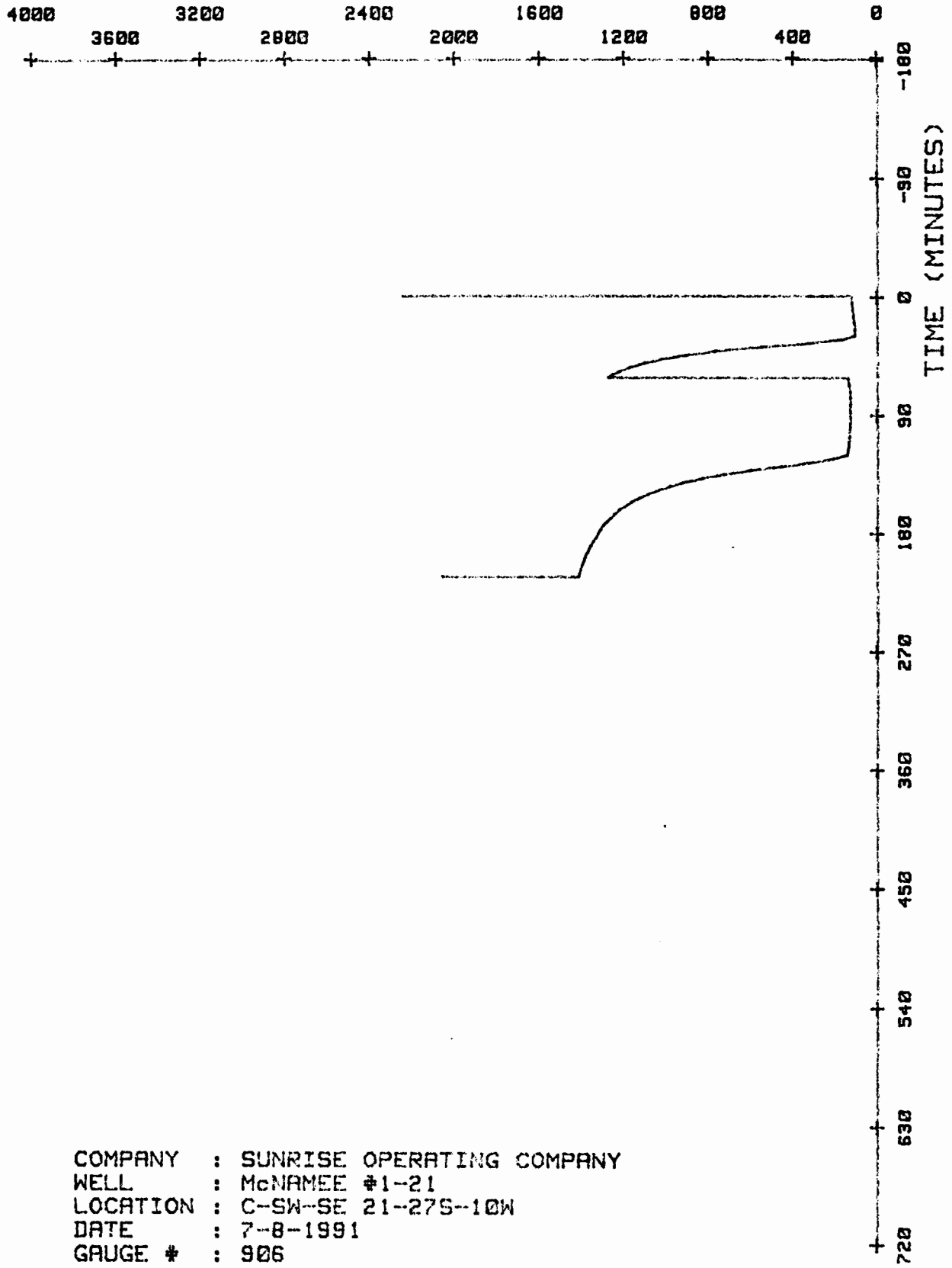
SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : SUNRISE OPERATING COMPANY WELL NAME : McNAMEE #1-21
 DATE OF TEST : 7-8-1991 LOCATION : C-SW-SE 21-27S-10W
 DEPTH : 4144.0 SERIAL NO. : 906

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	----- CORRECTED
TEST NO.:2					
- 9:34	18.0	1.146	829.02	2.62	831.64
- 9:37	21.0	1.269	917.58	3.32	920.90
- 9:40	24.0	1.356	980.23	3.81	984.03
- 9:43	27.0	1.433	1035.67	3.84	1039.51
- 9:46	30.0	1.500	1083.92	3.73	1087.64
- 9:49	33.0	1.560	1127.12	3.63	1130.75
- 9:52	36.0	1.609	1162.40	3.55	1165.95
- 9:55	39.0	1.651	1192.64	3.48	1196.12
- 9:58	42.0	1.691	1221.45	3.41	1224.86
- 10:01	45.0	1.720	1242.33	3.36	1245.69
- 10:04	48.0	1.746	1261.05	3.32	1264.37
- 10:07	51.0	1.774	1281.21	3.27	1284.48
- 10:10	54.0	1.797	1297.77	3.23	1301.01
- 10:13	57.0	1.815	1310.73	3.20	1313.94
- 10:16	60.0	1.833	1323.69	3.17	1326.87
- 10:19	63.0	1.846	1333.06	3.15	1336.21
- 10:22	66.0	1.864	1346.02	3.12	1349.14
- 10:25	69.0	1.880	1357.54	3.09	1360.63
- 10:28	72.0	1.895	1368.34	3.07	1371.41
- 10:30	74.0	1.901	1372.66	3.06	1375.72
- 10:31	75.0	1.907	1376.98	3.05	1380.03
- 10:34	78.0	1.919	1385.62	3.03	1388.65
- 10:37	81.0	1.928	1392.10	3.01	1395.11
- 10:40	84.0	1.937	1398.58	3.00	1401.58
- 10:43	87.0	1.944	1403.62	2.99	1406.61
- 10:46	90.0	1.952	1409.38	2.97	1412.36
- 10:49	93.0	1.962	1416.58	2.96	1419.54
-10:49 2ND SHUT-IN	0.0	1.962	1416.58	2.96	1419.54
-2ND HYDROSTATIC	0.0	2.856	2060.31	.03	2060.34

PRESSURE (P S I G)

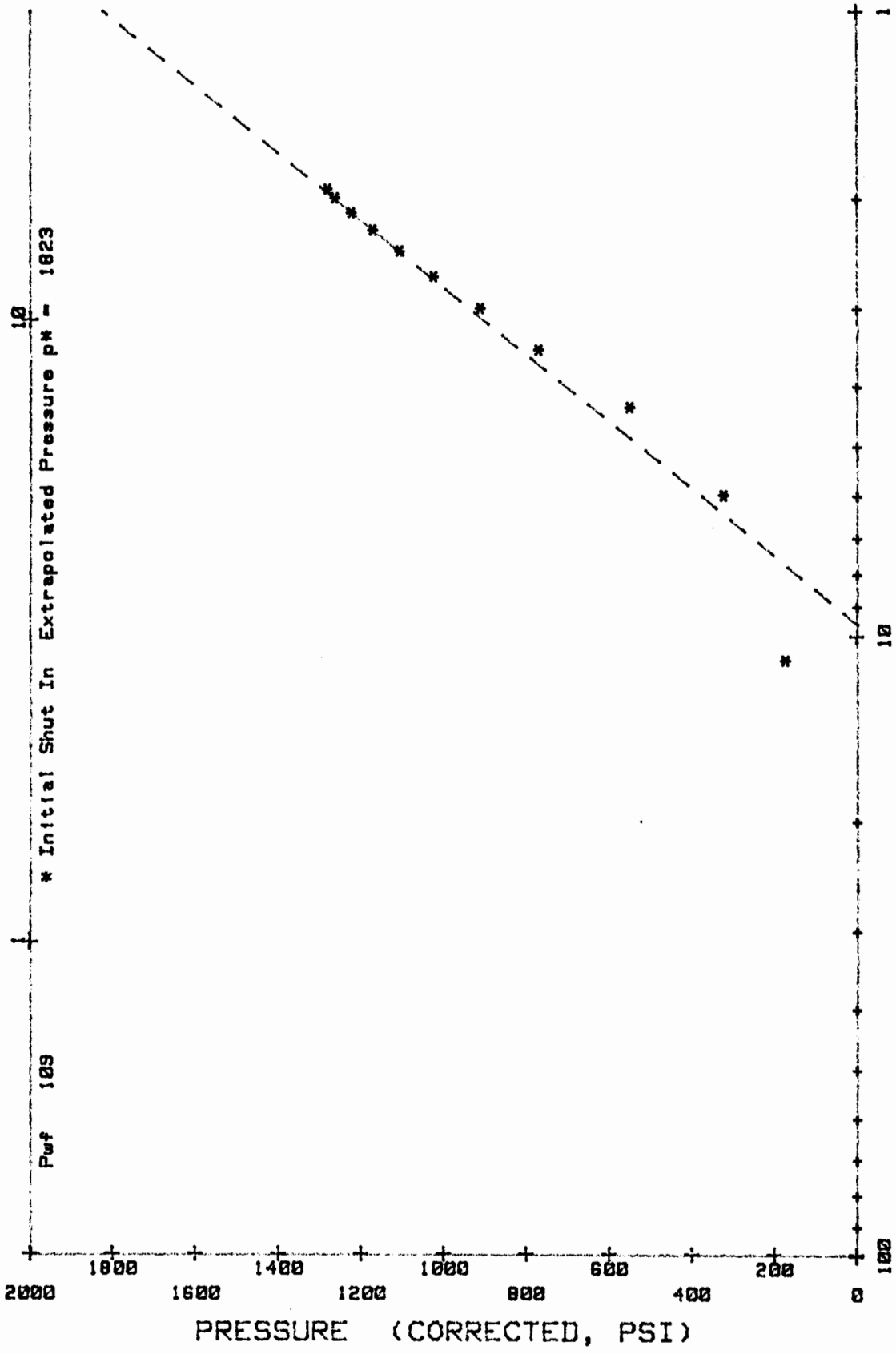


COMPANY : SUNRISE OPERATING COMPANY
WELL : McNAMEE #1-21
LOCATION : C-SW-SE 21-27S-10W
DATE : 7-8-1991
GAUGE # : 906

GAUGE # : 906

DATE : 7-8-1991

LOCATION : C-SW-SE 21-27S-10W



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

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : SUNRISE OPERATING COMPANY
 WELL NAME : McNAMEE #1-21
 LOCATION : C-SW-SE 21-27S-10W
 STATE & COUNTY : KANSAS, KINGMAN
 DATE OF TEST : 7-8-1991
 TEST INT. KB : 4026 to 4150
 TOTAL INTERVAL (ft) K.B. : 124.00
 ELEV. (GR) : 1718 (KB) : 1727
 FIELD :

ELEMENT SERIAL NO. : 906
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG	-----
Refer. depth :	4144.0 ft-kb			
-7:45 END FLOW	0.00	0.00	108.85	
	3.00	11.00	174.89	
	6.00	6.00	324.38	
	9.00	4.33	550.80	
	12.00	3.50	770.68	
	15.00	3.00	911.47	
	18.00	2.67	1023.95	
	21.00	2.43	1105.95	
	24.00	2.25	1171.26	
	27.00	2.11	1222.79	
	30.00	2.00	1261.97	
	32.00	1.94	1280.12	
-8:17 1ST SHUT-IN	0.00	0.00	1280.12	

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

D A T A S U M M A R Y

COMPANY : SUNRISE OPERATING COMPANY WELL NAME : McNAMEE #1-21
DATE OF TEST : 7-8-1991 LOCATION : C-SW-SE 21-27S-10W
DST. NO : 2 SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

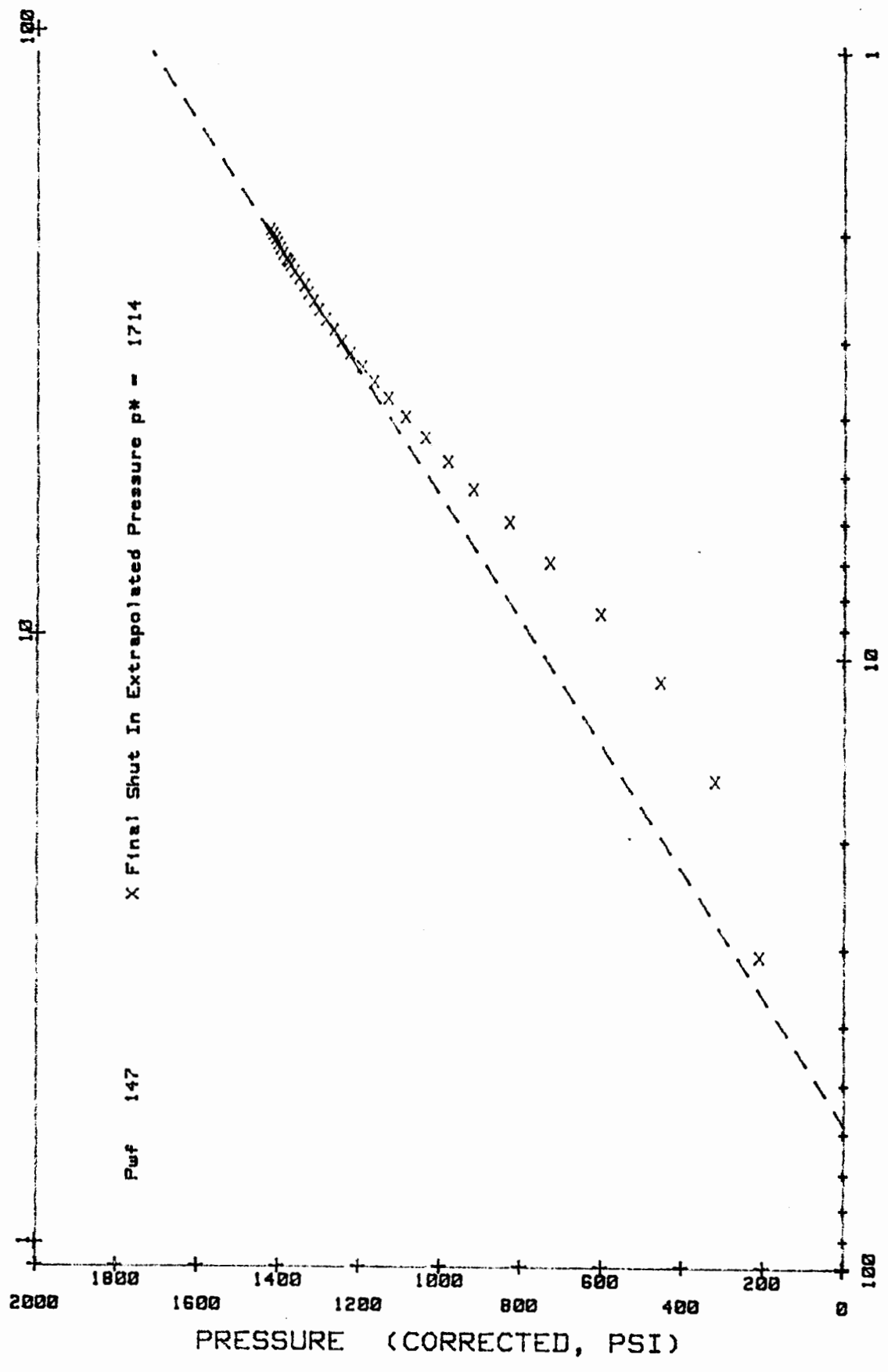
EXTRAPOLATED RESERVOIR PRESSURE (psi):	1823.00
Slope of Build-up Curve (psi/log cycle):	1856.49
Effective Producing Time (min):	30.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

LOCATION : C-SW-SE 21-27S-10W

DATE : 7-8-1991

GAUGE # : 906



Pwf 147 X Final Shut In Extrapolated Pressure p* = 1714

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : SUNRISE OPERATING COMPANY
 WELL NAME : McNAMEE #1-21
 LOCATION : C-SW-SE 21-27S-10W
 STATE & COUNTY : KANSAS, KINGMAN
 DATE OF TEST : 7-8-1991
 TEST INT. KB : 4026 to 4150
 TOTAL INTERVAL (ft) K.B. : 124.00
 ELEV. (GR) : 1718 (KB) : 1727
 FIELD :

ELEMENT SERIAL NO. : 906
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG -----
Refer. depth :	4144.0 ft-kb		
-9:16 END FLOW	0.00	0.00	146.59
	3.00	31.00	211.18
	6.00	16.00	321.48
	9.00	11.00	457.18
	12.00	8.50	605.22
	15.00	7.00	731.49
	18.00	6.00	831.64
	21.00	5.29	920.90
	24.00	4.75	984.03
	27.00	4.33	1039.91
	30.00	4.00	1088.53
	33.00	3.73	1132.08
	36.00	3.50	1167.63
	39.00	3.31	1198.11
	42.00	3.14	1227.14
	45.00	3.00	1248.19
	48.00	2.88	1267.05
	51.00	2.76	1287.37
	54.00	2.67	1304.06
	57.00	2.58	1317.13
	60.00	2.50	1330.19
	63.00	2.43	1339.62
	66.00	2.36	1352.69
	69.00	2.30	1364.30
	72.00	2.25	1375.18
	74.00	2.22	1379.54
	75.00	2.20	1383.89
	78.00	2.15	1392.60
	81.00	2.11	1399.13
	84.00	2.07	1405.66

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.
HORNER ANALYSIS

COMPANY : SUNRISE OPERATING COMPANY WELL NAME : McNAMEE #1-21
 DATE OF TEST : 7-8-1991 LOCATION : C-SW-SE 21-27S-10W
 REFERENCE DEPTH : 4144.0 SERIAL NO. : 906

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG
	87.00	2.03	1410.74
	90.00	2.00	1416.55
	93.00	1.97	1423.80
-10:49 2ND SHUT-IN	0.00	0.00	1423.80

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : SUNRISE OPERATING COMPANY WELL NAME : McNAMEE #1-21
 DATE OF TEST : 7-8-1991 LOCATION : C-SW-SE 21-27S-10W
 DST. NO : 2 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY

Oil (md.ft/cp):03
 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): 6.94E-06

ESTIMATED DAMAGE RATIO:35

CALCULATED DAMAGE RATIO: 1.23

Reservoir Temperature (F): 128.00
 Formation Porosity :18
 Formation Thickness (ft): 10.00
 Wellbore Radius (in): 3.94
 Reservoir Compressibility (psi⁻¹): 4.80E-07
 Calculated Skin Factor :35

PRODUCTION WITH DAMAGE REMOVED (bbl/D):23

PRODUCTIVITY INDEX (bbl/psi): 0.00

Final Flow Pressure (psi): 147.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 1.97

Total Flowing Time (min): 90.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1714.00

Slope of Build-up Curve (psi/log cycle): 971.52

Effective Producing Time (min): 90.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.