

SUPERIOR TL
RR #1, Box 295B, Great Plains, Kansas

Date July 1-1985 Location C-NE-NE-NW 24-23-15 Elevation 1977GL County RAWNEE

Company GENERAL Oil Company Inc. Number of Copies 5

Address 110 South Main Suite 402 Wichita KANSAS 67202

Charts Mailed to 110 South Main Suite 402 Wichita KANSAS 67202

Invoice Mailed to 110 South Main Suite 402 Wichita KANSAS 67202

Lease Murphy Well No. 2 Formation Tested CONGLOMERATE Test No. 2

Depth 3955 Tested from 3902 to 3955 Packer Size 6 7/8 Anchor Length 53

Top Packer Depth 3897 ft. Bottom Packer Depth 3902 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 ALLEN Rig # 2

Length Drill Pipe 3872 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2" X 14

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

Length Drill Collars NONE I.D. Drill Collars NONE Tool Joint Size NONE

Tool Open I.F.P. from 4:20 A.m to 4:35 A.m 15 min

from [B] 540 P.S.I. to [C] 549 P.S.I.

Tool Closed I.C.I.P. from 4:35 A.m to 6:15 A.m 100 min

[D] 1312 P.S.I.

Tool Open F.F.P. from 6:15 A.m to 6:35 A.m 20 min

from [E] 558 P.S.I. to [F] 540 P.S.I.

Tool Closed F.C.I.P. from 6:35 A.m to 7:20 A.m 45 min

[G] 1266 P.S.I.

Initial Hydrostatic Pressure [A] 2107 P.S.I. Final Hydrostatic Pressure [H] 2083 P.S.I. Maximum Temp 118 °F

Initial Blow Strong

Final Blow Strong

Gas to Surface 1 Min. Oil to Surface NONE Min. Mut Weight 10% Viscosity 42

Gas Gauged 1st OPEN 5 min - 1,790,000 2nd OPEN 5 min - 2,310,000

(@185) 10 min - 2,310,000 15 min - 2,310,000

(@185) 7.5 min - 2,310,000 20 min - 2,310,000

ALL GAS WAS GAUGED WITH R PITOT TUBE

Recovery 200 FEET OF MUD

Remarks _____

Extra Equipment-Jars \$300.00 Safety Joint \$60.00 Extra Packer NONE Straddle NONE Hook Wall NONE

Top Recorder No. 5463 Clock no. 23937 Depth 3949 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 4333 Clock No. 9096 Depth 3952 Chlorides - plts 50,000 D.S.T. 13000

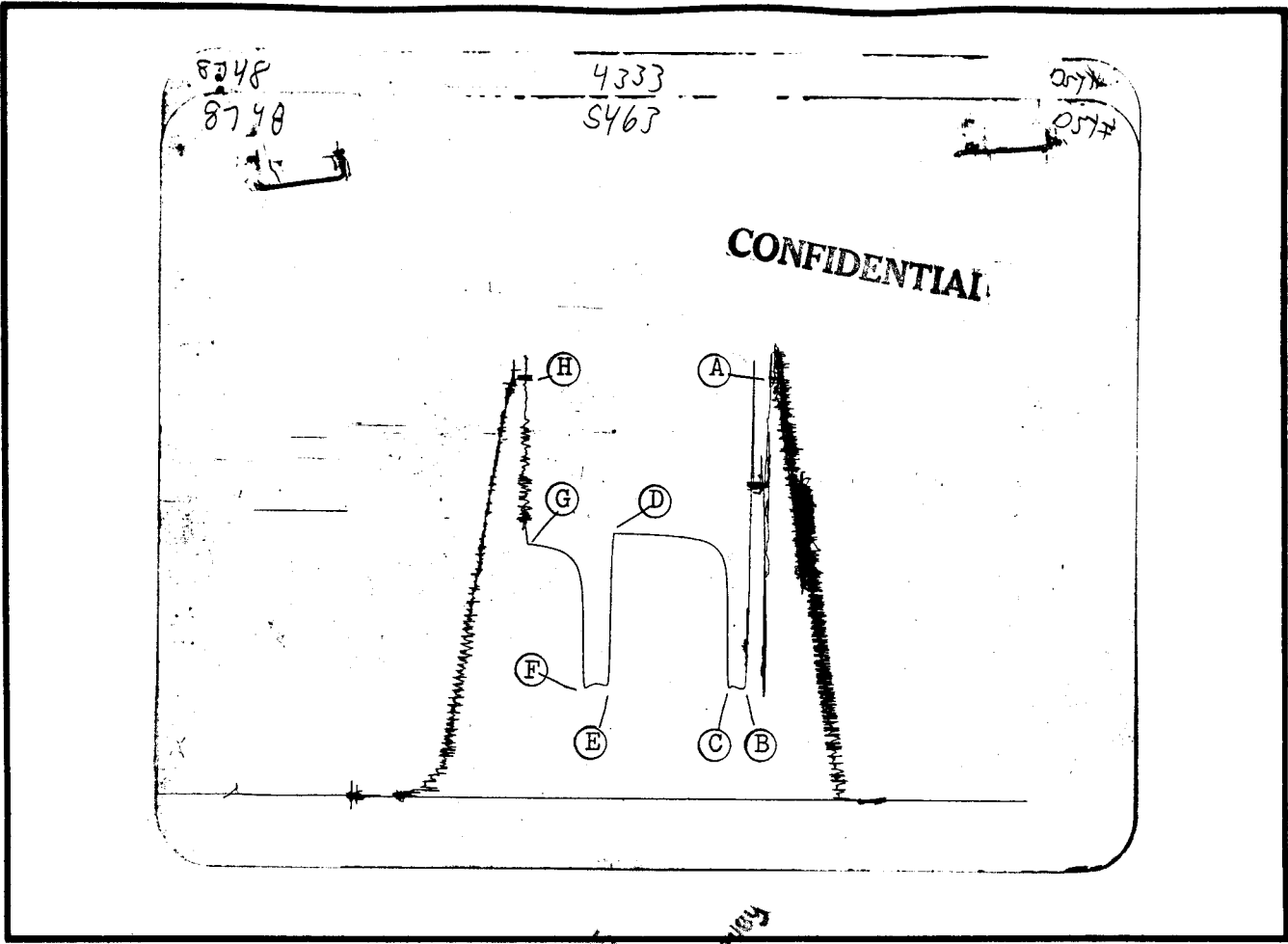
Price of Job 1960.00

Tool Operator Gene Budig

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 8748



Geo. G. Sullivan
 Wichita Branch

NE NE NW

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2107	2126	P.S.I.
(B) First Initial Flow Pressure	540	546	P.S.I.
(C) First Final Flow Pressure	549	552	P.S.I.
(D) Initial Closed-in Pressure	1312	1315	P.S.I.
(E) Second Initial Flow Pressure	558	559	P.S.I.
(F) Second Final Flow Pressure	540	545	P.S.I.
(G) Final Closed-in Pressure	1266	1259	P.S.I.
(H) Final Hydrostatic Mud	2088	2093	P.S.I.

SUPERIOR TESTERS ENTERPRISES, INC.

WELL IDENTIFICATION DATA

COMPANY : GENERAL OIL COMPANY WELL NAME : MURPHY #2
ADDRESS : 110 S.MAIN, #402 LOCATION : 24-23-15
STATE & COUNTY : KANSAS, PAWNEE FIELD :
ELEV.(GR) : 1977 (KB) : TEST DATE : 7-1-85

EQUIPMENT AND HOLE DATA

FORMATION TESTED : CONGLOMERATE DRILL PIPE LENGTH(ft) : 372
TEST INT. KB : 3902 to 3935 DRILL PIPE O.D.(in) : 3.82
ANCHOR LENGTH(ft) : 53 WEIGHT PIPE LENGTH(ft) : NONE
TYPE OF TEST : Conventional WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-kg) : 3955 DRILL COLLAR LENGTH(ft) : NONE
MAIN HOLE SIZE(in) : 7 7/8 DRILL COLLAR I.D.(in) : 2.259
MUD WEIGHT : 10.0 TOP PACKER DEPTH(kb) : 3897
MUD VISCOSITY : 42 BOTTOM PACKER DEPTH(kb) : 3902
MUD CHLORIDES : 50000 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) : 118 TEST TICKET NUMBER : 8748

EXTRA EQUIPMENT : -JARS -SAFETY JOINT
-INSURANCE

ELEMENT SERIAL NO. : 5463
RANGE : 0 - 3650 CLOCK RANGE : 12 HOURS
CAL. EQU. : 922.07 * Defl. - 2.47

SURFACE BLOW

1st Opening : STRONG
2nd Opening : STRONG

RECOVERY

Recovered 200 feet of MUD

REMARKS :

ALL GAS WAS GAUGED WITH A PITOT TUBE

WITNESSED BY : TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : GENERAL OIL COMPANY
 DATE OF TEST : 7-1-85
 DEPTH : 3949.0

WELL NAME : MURPHY #2
 LOCATION : 24-23-15
 SERIAL NO. : 5463

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.:2					
Depth : 3949.0 ft-kb					
-1ST HYDROSTATIC	0.0	2.311	2128.44	-1.59	2126.85
-04:20 1ST FLOW	0.0	.596	547.09	-.30	546.79
- 4:23	3.0	.596	547.09	-.30	546.79
- 4:26	6.0	.603	553.54	-.33	553.21
- 4:30	10.0	.609	559.07	-.36	558.72
- 4:31	11.0	.603	553.54	-.33	553.21
- 4:32	12.0	.602	552.62	-.33	552.29
-04:32 END FLOW	0.0	.602	552.62	-.33	552.29
- 4:35	3.0	1.248	1148.28	-2.52	1145.76
- 4:38	6.0	1.309	1204.52	-2.49	1202.03
- 4:41	9.0	1.341	1234.03	-2.48	1231.55
- 4:44	12.0	1.362	1253.39	-2.47	1250.92
- 4:47	15.0	1.376	1266.30	-2.46	1263.84
- 4:50	18.0	1.385	1274.60	-2.46	1272.14
- 4:53	21.0	1.394	1282.90	-2.46	1280.44
- 4:57	25.0	1.399	1287.51	-2.45	1285.06
- 4:59	27.0	1.404	1292.12	-2.45	1289.67
- 5:03	31.0	1.407	1294.89	-2.45	1292.44
- 5:06	34.0	1.411	1298.57	-2.45	1296.13
- 5:09	37.0	1.414	1301.34	-2.45	1298.89
- 5:12	40.0	1.416	1303.18	-2.45	1300.74
- 5:15	43.0	1.418	1305.03	-2.45	1302.58
- 5:18	46.0	1.419	1305.95	-2.45	1303.51
- 5:21	49.0	1.421	1307.79	-2.44	1305.35
- 5:24	52.0	1.424	1310.56	-2.44	1308.12
- 5:27	55.0	1.424	1310.56	-2.44	1308.12
- 5:30	58.0	1.426	1312.41	-2.44	1309.96
- 5:33	61.0	1.426	1312.41	-2.44	1309.96
- 5:36	64.0	1.428	1314.25	-2.44	1311.81
- 5:39	67.0	1.428	1314.25	-2.44	1311.81
- 5:43	71.0	1.429	1315.17	-2.44	1312.73
- 5:46	74.0	1.430	1316.09	-2.44	1313.65
- 5:48	76.0	1.430	1316.09	-2.44	1313.65
- 5:52	80.0	1.430	1316.09	-2.44	1313.65
- 5:55	83.0	1.430	1316.09	-2.44	1313.65
- 5:58	86.0	1.431	1317.02	-2.44	1314.58
- 6:01	89.0	1.431	1317.02	-2.44	1314.58
- 6:04	92.0	1.432	1317.94	-2.44	1315.50
- 6:07	95.0	1.432	1317.94	-2.44	1315.50
- 6:08	96.0	1.432	1317.94	-2.44	1315.50

SUPERIOR TESTERS ENTERPRISES, INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : GENERAL OIL COMPANY
 DATE OF TEST : 7-1-85
 DEPTH : 3949.0

WELL NAME : MURPHY #2
 LOCATION : 24-23-15
 SERIAL NO. : 5463

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.:2					
-06:08 1ST SHUT-IN	0.0	1.432	1317.94	-2.44	1315.50
-06:08 2ND FLOW	0.0	.610	560.00	-.36	559.63
- 6:11	3.0	.610	560.00	-.36	559.63
- 6:13	5.0	.612	561.84	-.37	561.47
- 6:17	9.0	.614	563.68	-.38	563.30
- 6:22	14.0	.609	559.07	-.36	558.72
- 6:27	19.0	.595	546.17	-.29	545.87
-06:27 END FLOW	0.0	.595	546.17	-.29	545.87
- 6:30	3.0	1.141	1049.62	-2.57	1047.05
- 6:33	6.0	1.233	1134.45	-2.53	1131.92
- 6:36	9.0	1.271	1169.48	-2.51	1166.97
- 6:39	12.0	1.297	1193.46	-2.50	1190.96
- 6:42	15.0	1.313	1208.21	-2.49	1205.72
- 6:46	19.0	1.326	1220.20	-2.49	1217.71
- 6:48	21.0	1.335	1228.50	-2.48	1226.01
- 6:52	25.0	1.343	1235.87	-2.48	1233.39
- 6:55	28.0	1.347	1241.41	-2.48	1238.93
- 6:58	31.0	1.353	1245.09	-2.47	1242.62
- 7:01	34.0	1.357	1248.78	-2.47	1246.31
- 7:04	37.0	1.362	1253.39	-2.47	1250.92
- 7:07	40.0	1.364	1255.24	-2.47	1252.77
- 7:10	43.0	1.367	1258.00	-2.47	1255.54
- 7:13	46.0	1.369	1259.85	-2.47	1257.38
- 7:15	48.0	1.371	1261.69	-2.47	1259.23
- 7:15	48.0	1.371	1261.69	-2.47	1259.23
- 7:15	48.0	1.371	1261.69	-2.47	1259.23
-07:10 2ND SHUT-IN	0.0	1.371	1261.69	-2.47	1259.23
-2ND HYDROSTATIC	0.0	2.275	2095.24	-1.72	2093.52

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : GENERAL OIL COMPANY

WELL NAME : MURPHY #2

DATE OF TEST : 7-1-85

LOCATION : 24-23-15

RECOVERY INFORMATION

LIQUID RECOVERY

Total Fluid Recovered : 200

Recovered 200 feet of MUD

GAS RECOVERY

Measured With : PITOT TUBE
(LBS. PER SQ. INCH)

Riser : 2

Time (min.)	Reading	Surface Choke (in.)	Cubic feet/day
4:25	6.00	0.00	1790000
4:30	8.00	0.00	2310000
4:35	8.00	0.00	2310000
6:20	8.00	0.00	2310000
6:30	8.00	0.00	2310000
6:35	8.00	0.00	2310000

FLUID PROPERTIES

	Viscosity (cp)	Compressibility (psi ⁻¹)	Pore Space Saturation
Oil			
Gas	.2	9.2E-6	
Water			

PRESSURE (P S I G)

4000 3600 3200 2800 2400 2000 1600 1200 800 400 0

-100

-90

0

90

180

270

360

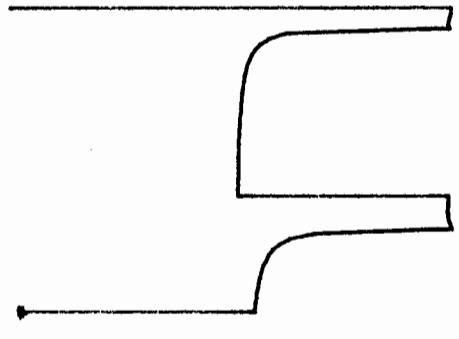
450

540

630

720

TIME (MINUTES)

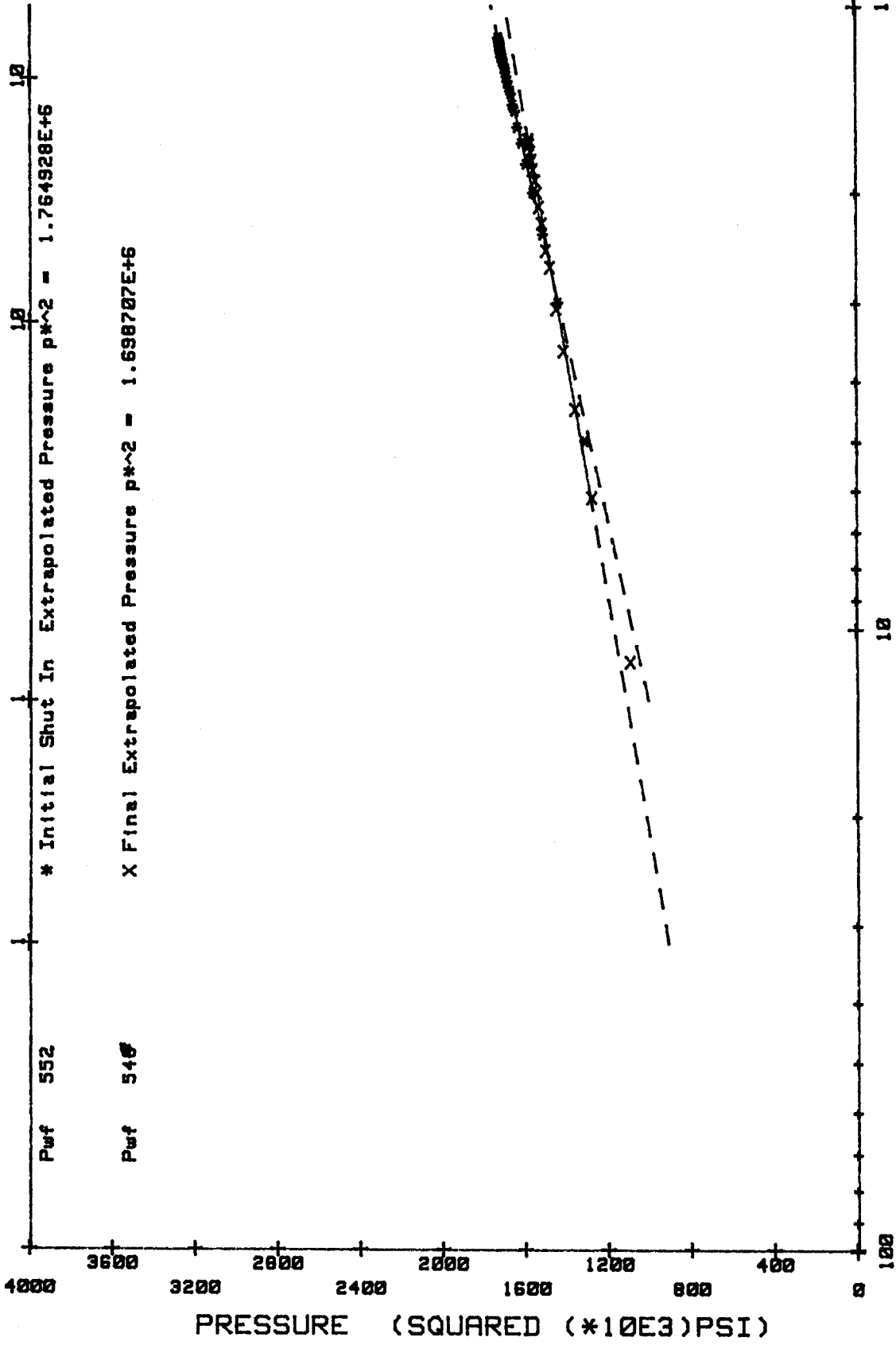


COMPANY : GENERAL OIL COMPANY
WELL : MURPHY #2
LOCATION : 24-23-15
DATE : 7-1-85
GAUGE # : 5463

LOCATION : 24-23-15

DATE : 7-1-85

GAUGE # : 5463



Pwf 552

Pwf 546

PRESSURE (SQUARED ($\times 10^3$) PSI)

TIME (MINUTES) : (T+dt)/dt - (Semi log scale)

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : GENERAL OIL COMPANY
 WELL NAME : MURPHY #2
 LOCATION : 24-23-15
 STATE & COUNTY : KANSAS, PAWNEE
 DATE OF TEST : 7-1-85
 TEST INT. KB : 3902 to 3955
 TOTAL INTERVAL (ft) K.B. : 53.00
 ELEV.(GR) : 1977 (KB) :
 FIELD :

ELEMENT SERIAL NO. : 5463
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG
Refer. depth : 3949.0 ft-kb			
-04:32 END FLOW	0.00	0.00	552.29
	3.00	5.00	1144.95
	6.00	3.00	1200.92
	9.00	2.33	1230.28
	12.00	2.00	1249.54
	15.00	1.80	1262.39
	18.00	1.67	1270.64
	21.00	1.57	1278.90
	25.00	1.48	1283.49
	27.00	1.44	1288.07
	31.00	1.37	1290.83
	34.00	1.35	1294.50
	37.00	1.32	1297.25
	40.00	1.30	1299.08
	43.00	1.28	1300.92
	46.00	1.26	1301.83
	49.00	1.24	1303.67
	52.00	1.23	1306.42
	55.00	1.22	1306.42
	58.00	1.21	1308.26
	61.00	1.20	1308.26
	64.00	1.19	1310.09
	67.00	1.18	1310.09
	71.00	1.17	1311.01
	74.00	1.16	1311.93
	76.00	1.16	1311.93
	80.00	1.15	1311.93
	83.00	1.14	1311.93
	86.00	1.14	1312.84
	89.00	1.13	1312.84

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : GENERAL OIL COMPANY
DATE OF TEST : 7-1-85
REFERENCE DEPTH : 3949.0

WELL NAME : MURPHY #2
LOCATION : 24-23-15
SERIAL NO. : 5463

COMMENTS	TIME min	$(T+dt)/dt$ min	----- PRESSURES CORR PSIG	-----
	92.00	1.13	1313.76	
	95.00	1.13	1313.76	
	96.00	1.13	1313.76	
-06:08 1ST SHUT-IN	0.00	0.00	1313.76	

SUPERIOR TESTERS ENTERPRISES, INC.

D A T A S U M M A R Y

COMPANY : GENERAL OIL COMPANY
DATE OF TEST : 7-1-85
DST. NO : 2

WELL NAME : MURPHY #2
LOCATION : 24-23-15
SHUT-IN PERIOD : 1

INTERPRETIVE DATA (GAS)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1328.51
Slope of Build-up Curve (psi/log cycle):	676983.06
Effective Producing Time (min):	12.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

HORNER ANALYSIS

COMPANY : GENERAL OIL COMPANY
 WELL NAME : MURPHY #2
 LOCATION : 24-23-15
 STATE & COUNTY : KANSAS, PAWNEE
 DATE OF TEST : 7-1-85
 TEST INT. KB : 3902 to 3955
 TOTAL INTERVAL (ft) K.B. : 53.00
 ELEV.(GR) : 1977 (KB) :
 FIELD :

ELEMENT SERIAL NO. : 5463
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES CORR PSIG -----
Refer. depth :	3949.0 ft-kb		
-06:27 END FLOW	0.00	0.00	545.87
	3.00	11.33	1046.79
	6.00	6.17	1131.19
	9.00	4.44	1166.06
	12.00	3.58	1189.91
	15.00	3.07	1204.59
	19.00	2.63	1216.51
	21.00	2.48	1224.77
	25.00	2.24	1232.11
	28.00	2.11	1237.61
	31.00	2.00	1241.28
	34.00	1.91	1244.95
	37.00	1.84	1249.54
	40.00	1.77	1251.38
	43.00	1.72	1254.13
	46.00	1.67	1255.96
	48.00	1.65	1257.80
	48.00	1.65	1257.80
	48.00	1.65	1257.80
-07:10 2ND SHUT-IN	0.00	0.00	1257.80

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : GENERAL OIL COMPANY
DATE OF TEST : 7-1-85
DST. NO : 2

WELL NAME : MURPHY #2
LOCATION : 24-23-15
SHUT-IN PERIOD : 2

INTERPRETIVE DATA (GAS)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1303.34
Slope of Build-up Curve (psi/log cycle):	521108.84
Effective Producing Time (min):	31.00

INTERPRETATION BY : SUPERIOR TESTERS INC.

SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

COMPANY : GENERAL OIL COMPANY WELL NAME : MURPHY #2
 DATE OF TEST : 7-1-85 LOCATION : 24-23-15
 DST. NO : 2 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (GAS)

TRANSMISSIBILITY

Oil (md.ft/cp): 0.00
 Gas (md.ft/cp): 419191.08

EFFECTIVE PERMEABILITY

Oil (md): 0.00
 Gas (md): 7126.25

TOTAL MOBILITY (md/cp): 35631.24

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

ESTIMATED DAMAGE RATIO:65

CALCULATED DAMAGE RATIO:30

Reservoir Temperature (F): 118.00
 Formation Porosity :20
 Formation Thickness (ft): 10.00
 Wellbore Radius (in): 3.94
 Reservoir Compressibility (psi⁻¹): 4.80E-07
 Calculated Skin Factor : -7.29

PRODUCTION WITH DAMAGE REMOVED (MCF/D): 687246.9

PRODUCTIVITY INDEX (MCF/psi): 305.82

Final Flow Pressure (psi): 548.00

APPROXIMATE RADIUS OF INVESTIGATION (ft): 14133.49

Total Flowing Time (min): 31.00

EXTRAPOLATED RESERVOIR PRESSURE (psi): 1303.34

Slope of Build-up Curve (psi/log cycle): 521108.04

Effective Producing Time (min): 31.00

INTERPRETATION BY : SUPERIOR TESTERS INC.