Commonwealth Petr. Co.
Krehbiel 1-19

19-23s-3w
15-079-20642

KANSAS GEOLOGICAL SURVEY
WICHITA BRANCH

Superior Testers Enterprises, Inc.

R.R. 3, Box 295B, Great Bend, Kansas 67530
(316) 792-6902

Date 6-21-1989 Location 60'W&600'E-C-S/2-SW 19-23S-3W 1957 G.L. Elevation 1965 KB County Harvey

Company Commonwealth Petroleum Number of Copies 5

Charts Mailed to P.O. Box 2458 Hutchinson Kansas 67504

Drilling Contractor Duke Drilling Rig #4

Length Drill Pipe 2945 I.D. Drill Pipe 3.80 Tool Joint Size 4½" X.H.

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

Length Drill Collars 284 I.D. Drill Collars 2.25 Tool Joint Size 4½" X.H.

Top Packer Depth 3243 Bottom Packer Depth 3248 Number of Packers 2 Packer Size 6¾

TESTED FROM 3248 TO 3304 ANCHOR LENGTH 56 TOTAL DEPTH 3304 Hole Size 7⅞

LEASE & WELL NO. Krehbiel #1-19 FORMATION TESTED Mississippi Wolfcamp TEST NO. 1

Mud Weight 9.4 Viscosity 38 Water Loss 12.4 Chlorides - Pits 3000 D.S.T.

Maximum Temp. 110 °F Initial Hydrostatic Pressure (A) 1644 P.S.I. Final Hydrostatic Pressure (H) 1560 P.S.I.

Tool Open I.F.P. from 6:00 Am to 6:30 Am 30 min

Tool Closed I.C.I.P. from 6:30 Am to 7:30 Am 60 min

Tool Open F.F.P. from 7:30 Am to 8:00 Am 30 min

Tool Closed F.C.I.P. from 8:00 Am to 9:00 Am 60 min

from [B] 147 P.S.I. to [C] 178 P.S.I.

[D] 346 P.S.I.

from [E] 262 P.S.I. to [F] 210 P.S.I.

[G] 346 P.S.I.

Initial Blow Fair blow built to the bottom of a 5 gallon bucket in 3 min.

Final Blow Weak to fair - built to the bottom of a 5 gallon bucket in 21 min.

Total Feet Recovered 390 Gravity of Oil Corrected

30 Feet of mud	%Gas	%Oil	%Mud	%Water
60 Feet of Watery mud	%Gas	%Oil	%Mud	%Water
120 Feet of Slight muddy water	%Gas	%Oil	%Mud	%Water
180 Feet of water	%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	%Gas	%Oil	%Mud	%Water

Remarks

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

Top Recorder No. 13561 Clock No. 47441 Depth 3298 Clr. Sub None Sampler None

Bottom Recorder No. 906 Clock No. 47442 Depth 3301 Insurance Yes

Price of Job

Tool Operator Dave Rudy

Approved By

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, 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.

№ 10564

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : COMMONWEALTH PETROLEUM
ADDRESS : P.O, BOX 2458 HUTCHINSON
STATE & COUNTY : KANSAS,HARVEY
ELEV.(GR) : 1957 (KB) : 1965

WELL NAME : KREHBIEL #1-19
LOCATION : 60N-100E-C-S/2-SW 19-23-3
FIELD :
TEST DATE : 6-21-1989

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI-WARSA
TEST INT. KB : 3248 to 3304
ANCHOR LENGTH(ft) : 56
TYPE OF TEST : Conventional
TOTAL DEPTH(ft-kb) : 3304
MAIN HOLE SIZE(in) : 7 7/8
MUD WEIGHT : 9.6
MUD VISCOSITY : 38
MUD CHLORIDES : 3000
SURFACE CHOKE : 3/4
BOTTOM CHOKE(in) : 3/4
TOOL SIZE(O.D.) : 5 1/2
TOOL JOINT SIZE(F.H.) : 4 1/2
RESERVOIR TEMPERATURE(F) : 110

DRILL PIPE LENGTH(ft) : 2945
DRILL PIPE O.D.(in) : 3.82
WEIGHT PIPE LENGTH(ft) :
WEIGHT PIPE ID : 2.75
DRILL COLLAR LENGTH(ft) : 284
DRILL COLLAR I.D.(in) : 2.259
TOP PACKER DEPTH(kb) : 3243
BOTTOM PACKER DEPTH(kb) : 3248
DUAL PACKERS :
PACKER SIZE(in) : 6 3/4
PACKER HOLD : Yes
TOOL PLUG : No
REVERSED OUT : No
TEST TICKET NUMBER : 10564

EXTRA EQUIPMENT :
-INSURANCE

ELEMENT SERIAL NO. : 13561
RANGE : 0 - 4175 CLOCK RANGE : 12 HOURS
CAL. EQU. : 1048.18 * Defl. + .46

SURFACE BLOW

1st Opening : FAIR BLOW-BUILT TO BOTTOM OF THE BUCKET IN 3 MIN.
2nd Opening : WEAK TO FAIR-BUILT TO BOTTOM OF BUCKET IN 21 MIN.

RECOVERY

Recovered 30 feet of MUD
Recovered 180 feet of MUDDY WATER
Recovered 180 feet of WATER

REMARKS :

WITNESSED BY : DEAN PATTISON TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : COMMONWEALTH PETROLEUM
DATE OF TEST : 6-21-1989
DEPTH : 3298.0

WELL NAME : KREHBIEL #1-19
LOCATION : 60N-100E-C-S/2-SW 19-23-3
SERIAL NO. : 13561

COMMENTS	TIME min	DEFL in	PRESSURE PSIG CALC	CORR	CORRECTED
TEST NO.:1					
Depth : 3298.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.542	1616.75	-.89	1615.87
-6:00 1ST FLOW	0.0	.128	134.63	-.18	134.45
- 6:05	5.0	.128	134.63	-.18	134.45
- 6:10	10.0	.132	138.82	-.17	138.66
- 6:15	15.0	.137	144.06	-.16	143.91
- 6:20	20.0	.142	149.30	-.14	149.16
- 6:25	25.0	.152	159.79	-.12	159.66
- 6:29	29.0	.175	183.89	-.07	183.82
-6:29 END FLOW	0.0	.175	183.89	-.07	183.82
- 6:34	5.0	.211	221.63	.01	221.64
- 6:39	10.0	.231	242.59	.06	242.65
- 6:44	15.0	.250	262.51	.10	262.61
- 6:49	20.0	.267	280.33	.14	280.46
- 6:54	25.0	.279	292.90	.16	293.07
- 6:59	30.0	.288	302.34	.18	302.52
- 7:04	35.0	.297	311.77	.20	311.97
- 7:09	40.0	.302	317.01	.21	317.23
- 7:14	45.0	.307	322.25	.23	322.48
- 7:19	50.0	.314	329.59	.24	329.83
- 7:24	55.0	.318	333.78	.25	334.03
-7:24 1ST SHUT-IN	0.0	.318	333.78	.25	334.03
-7:24 2ND FLOW	0.0	.220	231.06	.03	231.09
- 7:29	5.0	.222	233.16	.04	233.19
- 7:34	10.0	.215	225.82	.02	225.84
- 7:39	15.0	.212	222.68	.01	222.69
- 7:44	20.0	.209	219.53	.01	219.54
- 7:49	25.0	.209	219.53	.01	219.54
- 7:51	27.0	.209	219.53	.01	219.54
-8:51 END FLOW	0.0	.209	219.53	.01	219.54
- 8:56	5.0	.223	234.21	.04	234.24
- 9:01	10.0	.240	252.03	.08	252.10
- 9:06	15.0	.254	266.70	.11	266.81
- 9:11	20.0	.268	281.37	.14	281.51
- 9:16	25.0	.278	291.86	.16	292.02
- 9:21	30.0	.290	304.43	.19	304.62
- 9:26	35.0	.296	310.72	.20	310.92
- 9:31	40.0	.303	318.06	.22	318.28
- 9:36	45.0	.309	324.35	.23	324.58
- 9:41	50.0	.314	329.59	.24	329.83
- 9:46	55.0	.317	332.73	.25	332.98

SUPERIOR TESTERS ENTERPRISES INC.

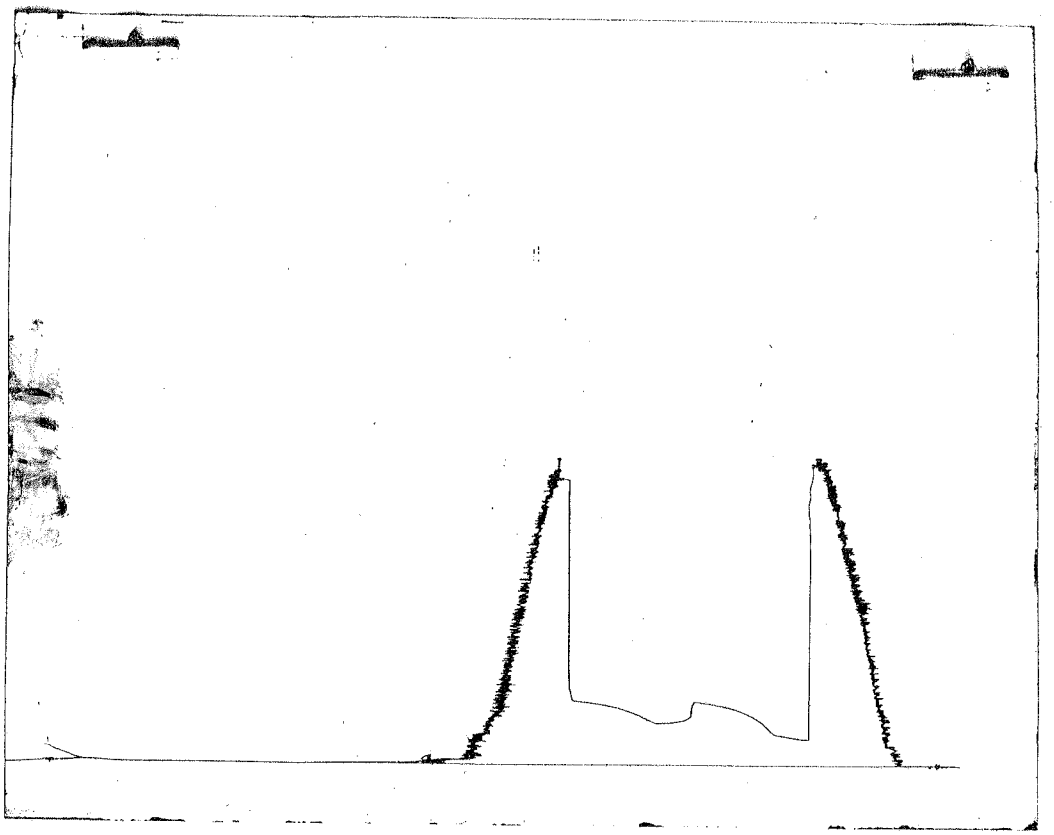
SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : COMMONWEALTH PETROLEUM
DATE OF TEST : 6-21-1989
DEPTH : 3298.0

WELL NAME : KREHBIEL #1-19
LOCATION : 60N-100E-C-S/2-SW 19-23-3
SERIAL NO. : 13561

COMMENTS	TIME min	DEFL in	PRESSURE PSIG CALC	CORR	CORRECTED
TEST NO.:1					
- 9:51	60.0	.322	337.98	.26	338.24
-9:51 2ND SHUT-IN	0.0	.322	337.98	.26	338.24
- 9:51	0.0	1.472	1543.38	-.58	1542.80
-2ND HYDROSTATIC	0.0	1.471	1542.33	-.58	1541.75
- 9:51	0.0	.471	494.15	.59	494.75
- 9:51	0.0	1.471	1542.33	-.58	1541.75

COMPANY Commonwealth Petroleum LEASE- WELL NO Krehbiel #1-19 SEC 19 TWP 23s RGE. 3w TEST NO. 1 DATE 6-21-1989



This is an actual photograph of recorder chart.

POINT		PRESSURE FIELD READING	PRESSURE OFFICE READING	
(A)	Initial Hydrostatic Mud	1644	1615	P.S.I.
(B)	First Initial Flow Pressure	147	134	P.S.I.
(C)	First Final Flow Pressure	178	183	P.S.I.
(D)	Initial Closed-in Pressure	346	334	P.S.I.
(E)	Second Initial Flow Pressure	262	231	P.S.I.
(F)	Second Final Flow Pressure	210	219	P.S.I.
(G)	Final Closed-in Pressure	346	338	P.S.I.
(H)	Final Hydrostatic Mud	1560	1541	P.S.I.

Superior Testers Enterprises, Inc.

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

(316) 792-6902

Date 6-22-1989 Location 60'W & 100'E C-S/2-19-23S-3W Elevation 1957 G.L. 1965 K.B. County Harvey

Company Commonwealth Petroleum Number of Copies 5

Charts Mailed to P.O. Box 2458 Hutchinson Kansas 67504

Drilling Contractor Duke Drilling Rig #4

Length Drill Pipe 3461 I.D. Drill Pipe 3.80 Tool Joint Size 4½" X.H

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

Length Drill Collars 284 I.D. Drill Collars 2.25 Tool Joint Size 4½" X.H

Top Packer Depth 3759 Bottom Packer Depth 3764 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 3764 TO 3800 ANCHOR LENGTH 36 TOTAL DEPTH 3800 Hole Size 7 7/8"

LEASE & WELL NO. Krehbiel #1-19 FORMATION TESTED Simpson TEST NO. 2

Mud Weight 9.5 Viscosity 42 Water Loss 13.2 Chlorides - Pits 3000 D.S.T.

Maximum Temp. 119 °F Initial Hydrostatic Pressure (A) 1864 P.S.I. Final Hydrostatic Pressure (H) 1822 P.S.I.

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

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

Tool Open F.F.P. from 12:00 pm to 12:30 pm 30 min

Tool Closed F.C.I.P. from 12:30 pm to 1:30 pm 60 min

from [B] 178 P.S.I. to [C] 514 P.S.I.

[D] 1185 P.S.I.

from [E] 682 P.S.I. to [F] 798 P.S.I

[G] 1185 P.S.I.

Initial Blow Good blow - built to the bottom of a 5 gallon bucket in 1½ minutes

Final Blow Good blow - built to the bottom of a 5 gallon bucket in 3 minutes

Total Feet Recovered 1850 Gravity of Oil ____ Corrected

250 Feet of muddy water with a trace of oil less than 1% %Gas ____ %Oil ____ %Mud ____ %Water

600 Feet of Very Slightly muddy water w/trace of oil less than 1% %Gas ____ %Oil ____ %Mud ____ %Water

1000 Feet of Water w/very slight trace of oil %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 ____ %Gas ____ %Oil ____ %Mud ____ %Water

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

Remarks Circ. fluid out to the pits

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

Top Recorder No. 13561 Clock No. 47441 Depth 3794 Clr. Sub ~~None~~ yes Sampler None

Bottom Recorder No. 906 Clock No. 47442 Depth 3797 Insurance yes

Price of Job ____

Tool Operator Gene Rudig

Approved By ____

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, 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.

No 10565

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : COMMONWEALTH PETROLEUM
ADDRESS : P.O, BOX 2458 HUTCHINSON
STATE & COUNTY : KANSAS,HARVEY
ELEV.(GR) : 1957 (KB) : 1965

WELL NAME : KREHBIEL #1-19
LOCATION : 60N-100E-C-S/2-SW 19-23-3
FIELD :
TEST DATE : 6-22-1989

EQUIPMENT AND HOLE DATA

FORMATION TESTED : SIMPSON
TEST INT. KB : 3764 to 3800
ANCHOR LENGTH(ft) : 36
TYPE OF TEST : Conventional
TOTAL DEPTH(ft-kb) : 3800
MAIN HOLE SIZE(in) : 7 7/8
MUD WEIGHT : 9.5
MUD VISCOSITY : 42
MUD CHLORIDES : 3000
SURFACE CHOKE : 3/4
BOTTOM CHOKE(in) : 3/4
TOOL SIZE(O.D.) : 5 1/2
TOOL JOINT SIZE(F.H.) : 4 1/2
RESERVOIR TEMPERATURE(F) : 119

DRILL PIPE LENGTH(ft) : 3461
DRILL PIPE O.D.(in) : 3.82
WEIGHT PIPE LENGTH(ft) :
WEIGHT PIPE ID : 2.75
DRILL COLLAR LENGTH(ft) : 284
DRILL COLLAR I.D.(in) : 2.259
TOP PACKER DEPTH(kb) : 3759
BOTTOM PACKER DEPTH(kb) : 3764
DUAL PACKERS :
PACKER SIZE(in) : 6 3/4
PACKER HOLD : Yes
TOOL PLUG : No
REVERSED OUT : No
TEST TICKET NUMBER : 10565

EXTRA EQUIPMENT : -CIRC.SUB
-INSURANCE

ELEMENT SERIAL NO. : 13561
RANGE : 0 - 4175 CLOCK RANGE : 12 HOURS
CAL. EQU. : 1048.18 * Defl. + .46

SURFACE BLOW

1st Opening : GOOD BLOW-BOTTOM OF THE BUCKET IN 1 1/2 MIN.
2nd Opening : GOOD BLOW-BOTTOM OF THE BUCKET IN 3 MIN.

RECOVERY

Recovered 850 feet of MUDDY WATER WITH A TRACE OF OIL
Recovered 1000 feet of WATER WITH A VERY SLIGHT TRACE OF OIL

REMARKS :

CIRC. RECOVERY OUT TO THE PITS

WITNESSED BY : DEAN PATTISON TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : COMMONWEALTH PETROLEUM
DATE OF TEST : 6-22-1989
DEPTH : 3794.0

WELL NAME : KREHBIEL #1-19
LOCATION : 60N-100E-C-S/2-SW 19-23-3
SERIAL NO. : 13561

COMMENTS	TIME min	DEFL in	PRESSURE PSIG CALC	CORR	CORRECTED
TEST NO.:2					
Depth : 3794.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.778	1864.12	-1.91	1862.21
-10:30 1ST FLOW	0.0	.157	165.03	-.11	164.92
- 10:35	5.0	.197	206.95	-.02	206.93
- 10:40	10.0	.275	288.71	.15	288.87
- 10:45	15.0	.349	366.28	.32	366.60
- 10:50	20.0	.408	428.12	.45	428.57
- 10:55	25.0	.481	504.64	.62	505.25
-10:55 END FLOW	0.0	.481	504.64	.62	505.25
- 11:00	5.0	.977	1024.53	1.56	1026.10
- 11:05	10.0	1.021	1070.65	1.37	1072.03
- 11:10	15.0	1.049	1100.00	1.25	1101.25
- 11:15	20.0	1.066	1117.82	1.18	1119.00
- 11:20	25.0	1.077	1129.35	1.13	1130.48
- 11:25	30.0	1.088	1140.88	1.08	1141.96
- 11:30	35.0	1.095	1148.22	1.05	1149.27
- 11:35	40.0	1.100	1153.46	1.03	1154.49
- 11:40	45.0	1.106	1159.75	1.00	1160.75
- 11:45	50.0	1.109	1162.89	.99	1163.88
- 11:50	55.0	1.113	1167.08	.97	1168.06
- 11:55	60.0	1.113	1167.08	.97	1168.06
-11:55 1ST SHUT-IN	0.0	1.113	1167.08	.97	1168.06
-11:55 2ND FLOW	0.0	.624	654.53	.94	655.46
- 12:00	5.0	.630	660.81	.95	661.76
- 12:05	10.0	.647	678.63	.99	679.62
- 12:10	15.0	.674	706.93	1.05	707.98
- 12:15	20.0	.705	739.43	1.12	740.55
- 12:20	25.0	.733	768.78	1.18	769.96
-12:20 END FLOW	0.0	.733	768.78	1.18	769.96
- 12:25	5.0	1.002	1050.74	1.46	1052.19
- 12:30	10.0	1.036	1086.37	1.31	1087.68
- 12:35	15.0	1.056	1107.34	1.22	1108.56
- 12:40	20.0	1.071	1123.06	1.16	1124.22
- 12:35	15.0	1.001	1049.69	1.46	1051.15
- 12:50	30.0	1.088	1140.88	1.08	1141.96
- 12:55	35.0	1.096	1149.26	1.05	1150.31
- 13:00	40.0	1.102	1155.55	1.02	1156.58
- 13:05	45.0	1.105	1158.70	1.01	1159.71
- 13:10	50.0	1.109	1162.89	.99	1163.88
- 13:15	55.0	1.110	1163.94	.99	1164.93
- 13:19	59.0	1.111	1164.99	.98	1165.97

SUPERIOR TESTERS ENTERPRISES INC.

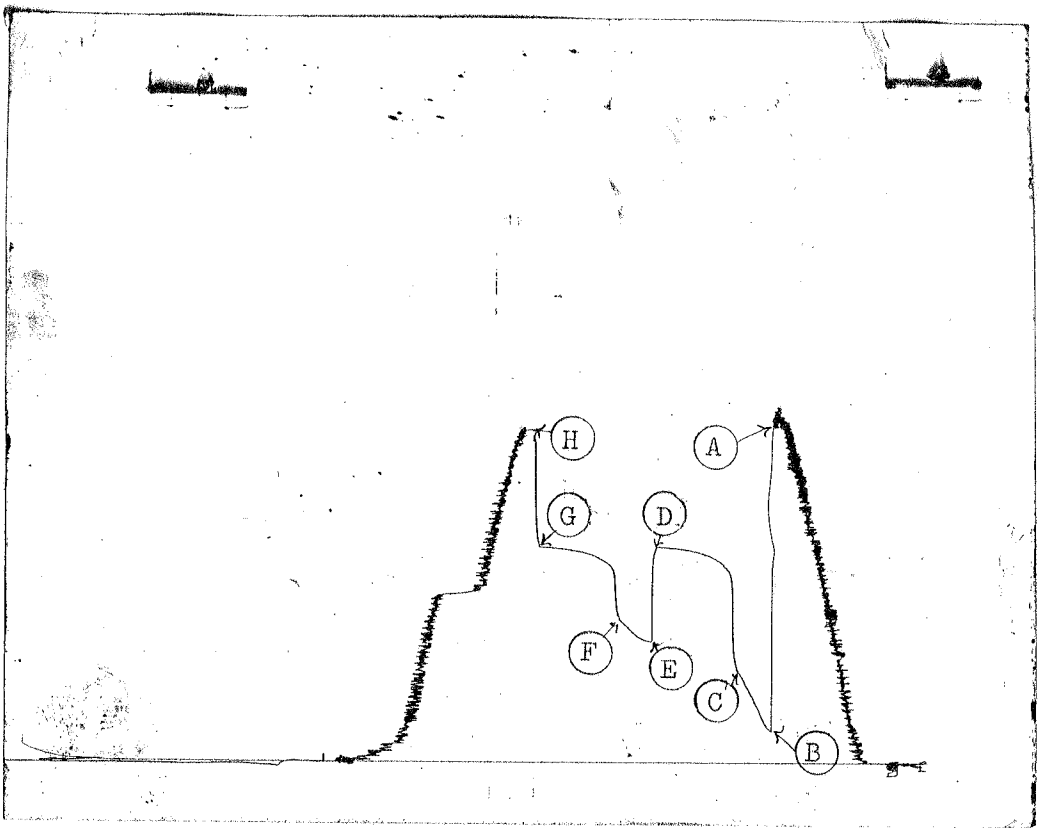
SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : COMMONWEALTH PETROLEUM
DATE OF TEST : 6-22-1989
DEPTH : 3794.0

WELL NAME : KREHBIEL #1-19
LOCATION : 60N-100E-C-S/2-SW 19-23-3
SERIAL NO. : 13561

COMMENTS	TIME	DEFL	PRESSURE PSIG		
	min	in	CALC	CORR	CORRECTED
TEST NO.:2					
- 12:20	0.0	1.111	1164.99	.98	1165.97
-2ND HYDROSTATIC	0.0	1.714	1797.04	-1.63	1795.41

COMPANY Commonwealth Petroleum LEASE-WELL NO Krenbiel #1-12 SEC 12 TWP 22 RGE. 2 TEST NO. 2 DATE 8-22-1969



This is an actual photograph of recorder chart.

POINT		PRESSURE FIELD READING	PRESSURE OFFICE READING	
(A)	Initial Hydrostatic Mud	1864	1862	P.S.I.
(B)	First Initial Flow Pressure	178	164	P.S.I.
(C)	First Final Flow Pressure	514	505	P.S.I.
(D)	Initial Closed-In Pressure	1185	1168	P.S.I.
(E)	Second Initial Flow Pressure	682	655	P.S.I.
(F)	Second Final Flow Pressure	798	769	P.S.I.
(G)	Final Closed-In Pressure	1185	1165	P.S.I.
(H)	Final Hydrostatic Mud	1822	1795	P.S.I.