

Superior Testers Enterprises, Inc.

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

(316) 792-6902

Date 9-2-1991 Location 705-SW-SW-W 24-26th Elevation 2648 K.B. County SHERIDAN

Company NATIONAL PETROLEUM RESERVES INC. Number of Copies 5

Charts Mailed to 250 North Rock Road Suite 340 Wichita Kansas 67206

Drilling Contractor EMPHASIS Drilling Rig #7

Length Drill Pipe 3940 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 31 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X.H.

Top Packer Depth 3993 Bottom Packer Depth 3998 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 3998 TO 4037 ANCHOR LENGTH 39 TOTAL DEPTH 4037 Hole Size 7 7/8

LEASE & WELL NO. EPIER "B" #1 FORMATION TESTED KANSAS CITY "140" TEST NO. 4

Mud Weight 8.8 Viscosity 44 Water Loss 10.8 Chlorides - Pits 3000 D.S.T. _____

Maximum Temp. 112 °F Initial Hydrostatic Pressure (A) 1984 P.S.I. Final Hydrostatic Pressure (H) 1798 P.S.I.

Tool Open I.F.P. from 6:35 P.m. to 7:05 P.m. 30 min

Tool Closed I.C.I.P. from 7:05 P.m. to 7:35 P.m. 30 min

Tool Open F.F.P. from 7:35 P.m. to 8:35 P.m. 60 min

Tool Closed F.C.I.P. from 8:35 P.m. to 9:35 P.m. 60 min

Initial Blow Good blow - bottom of a 7 Gallon bucket in 80 seconds

Final Blow Good blow - bottom of a 7 Gallon bucket in 2 1/2 minutes

Total Feet Recovered 340 Gravity of Oil 42 1/2 Corrected

220 Feet of CLEAN Gassy Oil % Gas _____ % Oil _____ % Mud _____ % Water _____

60 Feet of SLIGHTLY muddy Gassy Oil 5 % Gas 75 % Oil 20 % Mud 0 % Water

60 Feet of SLIGHTLY muddy Gassy Oil 10 % Gas 60 % Oil 30 % Mud 0 % Water

_____ Feet of 5 % Gas 75 % Oil 20 % Mud 0 % 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 _____

OF 58.30

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

Top Recorder No. 906 Clock No. 47441 Depth 4031 Cir. Sub NONE Sampler NONE

Bottom Recorder No. 13561 Clock No. 47442 Depth 4034 Insurance NONE

Price of Job _____

Tool Operator Gene Budig

Approved By _____

NO 10945

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.

Superior Testers Enterprises, Inc.

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

(316) 792-6902

GAS FLOW REPORT

Date 9-2-1991 Ticket # 10945 Company National Petroleum RESERVES
Well Name and No. EPIER "B" #1 DST No. 4 Interval Tested 3998-4037
County SHERIDAN State KANSAS Sec. 24 Twp. 9^s Rg. 26^w

Time Gauge Pre-Flow	Time Gauge in Min.	Inches of Water on Orifice Well Tester	Inches of Mercury on Orifice Well Tester	P.S.I. on Orifice Well Tester	P.S.I. on Pitot Tester	Choke Size	Gas Rate MCF
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PRE FLOW

GAS to SURFACE AT THE END OF THE 1 st OPEN							

SECOND FLOW

7:35	Tool	OPEN					
7:40	5	42				1/4	10.9
7:50	15	44				1/4	11.1
8:00	25	28				1/4	8.89
8:10	35	19				1/4	7.32
8:20	45	15				1/4	6.55
8:30	Tool	Closed					
8:30	55	12				1/4	5.86
8:35	60	10				1/4	5.32

GAS BOTTLE

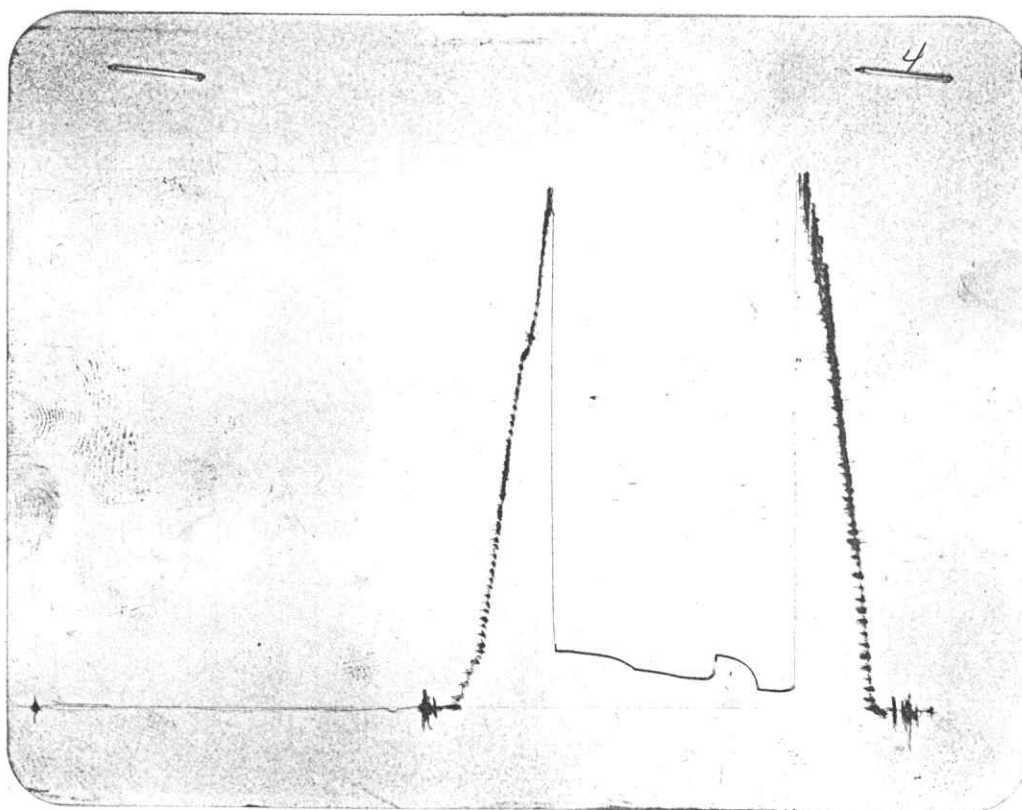
Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____ Test Ticket # _____

Requisition and Provisions for high pressure steel gas bottles. Superior Testers Enterprises, Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Superior Testers Enterprises, Inc. within thirty (30) days free of charge or be invoiced in the amount of \$125.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1½% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>1984</u>	<u>1921</u>	P.S.I.
(B) First Initial Flow Pressure	<u>72</u>	<u>83</u>	P.S.I.
(C) First Final Flow Pressure	<u>87</u>	<u>67</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>195</u>	<u>197</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>108</u>	<u>123</u>	P.S.I.
(F) Second Final Flow Pressure	<u>144</u>	<u>140</u>	P.S.I.
(G) Final Closed-in Pressure	<u>210</u>	<u>210</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>1798</u>	<u>1899</u>	P.S.I.

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : NATIONAL PET.RES. WELL NAME : EPLER"B"#1
ADDRESS : 250 N.ROCK ROAD,WICHITA LOCATION : 70'S-SW-SW-NW 24-9S-26W
STATE & COUNTY : KANSAS,SHERIDAN FIELD :
ELEV.(GR) : 2643 (KB) : 2648 TEST DATE : 9-2-1991

EQUIPMENT AND HOLE DATA

FORMATION TESTED : KANSAS CITY"140" DRILL PIPE LENGTH(ft) : 3940
TEST INT. KB : 3998 to 4037 DRILL PIPE O.D.(in) : 3.82
ANCHOR LENGTH(ft) : 39 WEIGHT PIPE LENGTH(ft) :
TYPE OF TEST : Conventional WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-kb) : 4037 DRILL COLLAR LENGTH(ft) : 31
MAIN HOLE SIZE(in) : 7 7/8 DRILL COLLAR I.D.(in) : 2.259
MUD WEIGHT : 8.8 TOP PACKER DEPTH(kb) : 3993
MUD VISCOSITY : 44 BOTTOM PACKER DEPTH(kb) : 3998
MUD CHLORIDES : 3000 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 FLUG : No
TOOL JOINT SIZE(F.H.) : 4 1/2 REVERSED OUT : No
RESERVOIR TEMPERATURE(F) : 112 TEST TICKET NUMBER : 10945

EXTRA EQUIPMENT : -JARS -SAFETY JOINT

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

SURFACE BLOW

1st Opening : GOOD BLOW-BOTTOM OF THE BUCKET IN 80 SECONDS
2nd Opening : GOOD BLOW BOTTOM OF THE BUCKET IN 2 1/2 MINUTES

RECOVERY

Recovered 1 feet of SEE GAS REPORT
Recovered 220 feet of CLEAN GASSY OIL GRAVITY 42 1/2
Recovered 120 feet of SLIGHTLY MUDDY GASSY OIL

REMARKS :

WITNESSED BY : DAN DEBOER TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : NATIONAL PET.RES.
 DATE OF TEST : 9-2-1991
 DEPTH : 4031.0

WELL NAME : EPLER"B"#1
 LOCATION : 70'S-SW-SW-NW 24-9S-26W
 SERIAL NO. : 906

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			CALC	CORR	CORRECTED
TEST NO.:4					
Depth : 4031.0 ft-kb					
-1ST HYDROSTATIC	0.0	2.753	1986.15	.24	1986.39
-6:35 1ST FLOW	0.0	.115	86.64	-3.18	83.45
- 6:40	5.0	.097	73.68	-3.29	70.39
- 6:45	10.0	.092	70.08	-3.31	66.76
- 6:50	15.0	.092	70.08	-3.31	66.76
- 6:55	20.0	.092	70.08	-3.31	66.76
- 7:00	25.0	.092	70.08	-3.31	66.76
- 7:05	30.0	.093	70.80	-3.31	67.49
-7:05 END FLOW	0.0	.093	70.80	-3.31	67.49
- 7:08	3.0	.164	121.92	-2.91	119.01
- 7:11	6.0	.196	144.96	-2.73	142.24
- 7:14	9.0	.213	157.20	-2.63	154.57
- 7:17	12.0	.230	169.45	-2.54	166.91
- 7:20	15.0	.242	178.09	-2.47	175.62
- 7:23	18.0	.252	185.29	-2.41	182.87
- 7:26	21.0	.258	189.61	-2.38	187.23
- 7:29	24.0	.264	193.93	-2.35	191.58
- 7:32	27.0	.269	197.53	-2.32	195.21
- 7:35	30.0	.272	199.69	-2.30	197.39
- 7:37	32.0	.272	199.69	-2.30	197.39
-7:37 1ST SHUT-IN	0.0	.272	199.69	-2.30	197.39
-7:37 2ND FLOW	0.0	.170	126.24	-2.88	123.37
- 7:42	5.0	.150	111.84	-2.99	108.85
- 7:47	10.0	.148	110.40	-3.00	107.40
- 7:52	15.0	.148	110.40	-3.00	107.40
- 7:57	20.0	.151	112.56	-2.98	109.58
- 8:02	25.0	.153	114.00	-2.97	111.03
- 8:07	30.0	.162	120.48	-2.92	117.56
- 8:12	35.0	.168	124.80	-2.89	121.92
- 8:17	40.0	.174	129.12	-2.85	126.27
- 8:22	45.0	.181	134.16	-2.81	131.35
- 8:27	50.0	.187	138.48	-2.78	135.70
- 8:32	55.0	.188	139.20	-2.77	136.43
- 8:37	60.0	.193	142.80	-2.75	140.06
-8:37 END FLOW	0.0	.193	142.80	-2.75	140.06
- 8:40	3.0	.210	155.04	-2.65	152.39
- 8:43	6.0	.225	165.85	-2.57	163.28
- 8:46	9.0	.233	171.61	-2.52	169.09
- 8:49	12.0	.244	179.53	-2.46	177.07
- 8:52	15.0	.249	183.13	-2.43	180.70

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : NATIONAL PET.RES.
DATE OF TEST : 9-2-1991
DEPTH : 4031.0

WELL NAME : EPLER"B"#1
LOCATION : 70'S-SW-SW-NW 24-9S-26W
SERIAL NO. : 906

COMMENTS	TIME min	DEFL in	----- CALC	PRESSURE PSIG CORR	----- CORRECTED
TEST NO.: 4					
- 8:55	18.0	.257	188.89	-2.38	186.50
- 8:58	21.0	.262	192.49	-2.36	190.13
- 9:01	24.0	.265	194.65	-2.34	192.31
- 9:04	27.0	.267	196.09	-2.33	193.76
- 9:07	30.0	.272	199.69	-2.30	197.39
- 9:10	33.0	.275	201.85	-2.28	199.56
- 9:13	36.0	.276	202.57	-2.28	200.29
- 9:16	39.0	.278	204.01	-2.27	201.74
- 9:19	42.0	.281	206.17	-2.25	203.92
- 9:22	45.0	.282	206.89	-2.24	204.64
- 9:25	48.0	.283	207.61	-2.24	205.37
- 9:28	51.0	.285	209.05	-2.23	206.82
- 9:31	54.0	.285	209.05	-2.23	206.82
- 9:34	57.0	.289	211.93	-2.20	209.72
- 9:37	60.0	.290	212.65	-2.20	210.45
-9:37 2ND SHUT-IN	0.0	.290	212.65	-2.20	210.45
-2ND HYDROSTATIC	0.0	2.632	1899.02	.69	1899.71

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : NATIONAL PET.RES.
DATE OF TEST : 9-2-1991

WELL NAME : EPLER"B"#1
LOCATION : 70'S-SW-SW-NW 24-9S-26W

RECOVERY INFORMATION

LIQUID RECOVERY

Total Fluid Recovered :

Recovered 1 feet of SEE GAS REPORT
Recovered 220 feet of CLEAN GASSY OIL GRAVITY 42 1/2
Recovered 120 feet of SLIGHTLY MUDDY GASSY OIL

GAS RECOVERY

Measured With : ORFICE TESTER
(INCHES OF WATER)

Riser : 2 INCH

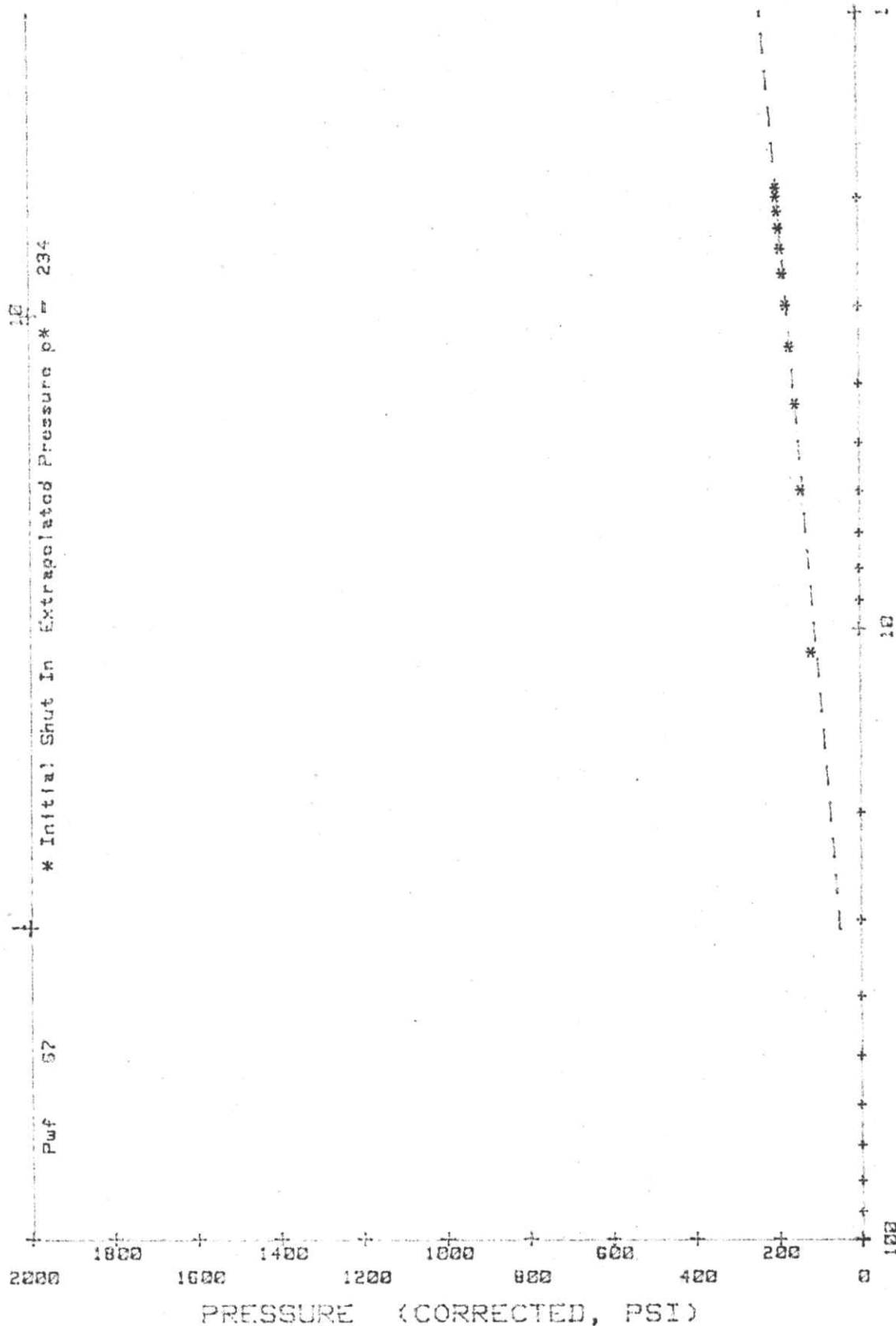
Time (min.)	Reading	Surface Choke (in.)	Cubic feet/day
7:40	42.00	.25	10900
7:50	44.00	.25	11100
8:00	28.00	.25	8890
8:10	19.00	.25	7320
8:20	15.00	.25	6550
8:30	12.00	.25	5860
8:35	10.00	.25	5320

FLUID PROPERTIES

	Viscosity (cp)	Compressibility (psi-1)	Pore Space Saturation
Oil	.8	7.7E-6	.4
Gas	.2	9.2E-6	.4
Water	.45	3.1E-6	.2

GAUGE # : 906

LOCATION : 70'S-SW-SW-NW 24-9S-26W DATE : 9-2-1991



PRESSURE (CORRECTED, PSI)

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : NATIONAL PET.RES.
 WELL NAME : EPLER"B"#1
 LOCATION : 70'S-SW-SW-NW 24-9S-26W
 STATE & COUNTY : KANSAS,SHERIDAN
 DATE OF TEST : 9-2-1991
 TEST INT. KB : 3998 to 4037
 TOTAL INTERVAL (ft) K.B. : 39.00
 ELEV.(GR) : 2643 (KB) : 2648
 FIELD :

ELEMENT SERIAL NO. : 906
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	---- PRESSURES ---- CORR PSIG
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Refer. depth : 4031.0 ft-kb

-7:05 END FLOW	0.00	0.00	67.49
	3.00	11.00	119.01
	6.00	6.00	142.24
	9.00	4.33	154.57
	12.00	3.50	166.91
	15.00	3.00	175.62
	18.00	2.67	182.87
	21.00	2.43	187.23
	24.00	2.25	191.58
	27.00	2.11	195.21
	30.00	2.00	197.39
	32.00	1.94	197.39
-7:37 1ST SHUT-IN	0.00	0.00	197.39

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

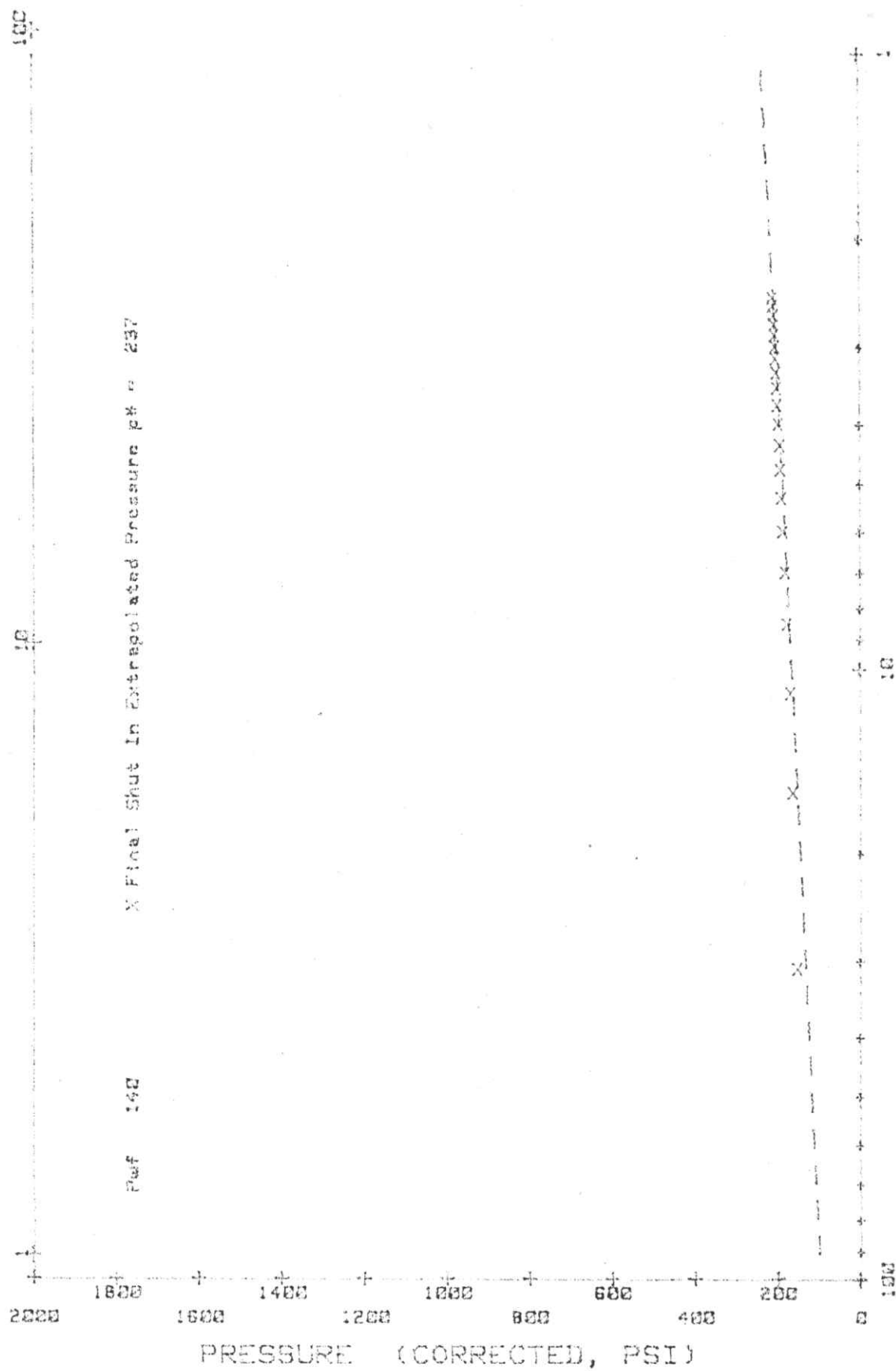
COMPANY : NATIONAL PET.RES.	WELL NAME : EPLER"B"#1
DATE OF TEST : 9-2-1991	LOCATION : 70'S-SW-SW-NW 24-9S-26W
DST. NO : 4	SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	234.00
Slope of Build-up Curve (psi/log cycle):	122.13
Effective Producing Time (min):	30.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

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SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : NATIONAL PET.RES.
 WELL NAME : EPLER"B"#1
 LOCATION : 70'S-SW-SW-NW 24-9S-26W
 STATE & COUNTY : KANSAS,SHERIDAN
 DATE OF TEST : 9-2-1991
 TEST INT. KB : 3998 to 4037
 TOTAL INTERVAL (ft) K.B. : 39.00
 ELEV.(GR) : 2643 (KB) : 2648
 FIELD :

ELEMENT SERIAL NO. : 906
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	----- PRESSURES ----- CORR PSIG
Refer. depth :	4031.0 ft-kb		
-8:37 END FLOW	0.00	0.00	140.06
	3.00	31.00	152.39
	6.00	16.00	163.28
	9.00	11.00	169.09
	12.00	8.50	177.07
	15.00	7.00	180.70
	18.00	6.00	186.50
	21.00	5.29	190.13
	24.00	4.75	192.31
	27.00	4.33	193.76
	30.00	4.00	197.39
	33.00	3.73	199.56
	36.00	3.50	200.29
	39.00	3.31	201.74
	42.00	3.14	203.92
	45.00	3.00	204.64
	48.00	2.88	205.37
	51.00	2.76	206.82
	54.00	2.67	206.82
	57.00	2.58	209.72
	60.00	2.50	210.45
-9:37 2ND SHUT-IN	0.00	0.00	210.45

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : NATIONAL PET.RES.
DATE OF TEST : 9-2-1991
DST. NO : 4

WELL NAME : EPLER"B"#1
LOCATION : 70'S-SW-SW-NW 24-9S-26W
SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY

Oil (md.ft/cp):	135.53
Gas (md.ft/cp):	0.00

EFFECTIVE PERMEABILITY

Oil (md):	12.03
Gas (md):	0.00

TOTAL MOBILITY (md/cp):	15.04
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TOTAL COMPRESSIBILITY (psi ⁻¹):	7.86E-06
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ESTIMATED DAMAGE RATIO:	.30
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CALCULATED DAMAGE RATIO:	.28
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Reservoir Temperature (F):	112.00
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Formation Porosity :	.18
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Formation Thickness (ft):	10.00
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Wellbore Radius (in):	3.94
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Reservoir Compressibility (psi ⁻¹):	4.80E-07
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Calculated Skin Factor :	-4.09
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PRODUCTION WITH DAMAGE REMOVED (bbl/D):	58.30
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PRODUCTIVITY INDEX (bbl/psi):	.60
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Final Flow Pressure (psi):	140.00
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APPROXIMATE RADIUS OF INVESTIGATION (ft):	128.90
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Total Flowing Time (min):	90.00
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EXTRAPOLATED RESERVOIR PRESSURE (psi):	237.00
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Slope of Build-up Curve (psi/log cycle):	69.94
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Effective Producing Time (min):	90.00
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INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : NATIONAL PET.RES.
DATE OF TEST : 9-2-1991
DST. NO : 4

WELL NAME : EPLER"B"#1
LOCATION : 70'S-SW-SW-NW 24-9S-26W
SHUT-IN PERIOD : 2

INTERPRETIVE DATA (GAS)

TRANSMISSIBILITY

Oil (md.ft/cp):	0.00
Gas (md.ft/cp):	191.33

EFFECTIVE PERMEABILITY

Oil (md):	0.00
Gas (md):	3.25

TOTAL MOBILITY (md/cp):	16.26
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TOTAL COMPRESSIBILITY (psi ⁻¹):	9.20E-04
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ESTIMATED DAMAGE RATIO:	.29
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CALCULATED DAMAGE RATIO:	.46
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Reservoir Temperature (F):	112.00
Formation Porosity :	.18
Formation Thickness (ft):	10.00
Wellbore Radius (in):	3.94
Reservoir Compressibility (psi ⁻¹):	4.80E-07
Calculated Skin Factor :	-1.81

PRODUCTION WITH DAMAGE REMOVED (MCF/D):	5.32
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PRODUCTIVITY INDEX (MCF/psi):	.06
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Final Flow Pressure (psi):	140.00
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APPROXIMATE RADIUS OF INVESTIGATION (ft):	12.38
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Total Flowing Time (min):	90.00
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EXTRAPOLATED RESERVOIR PRESSURE (psi):	232.98
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Slope of Build-up Curve (psi/log cycle):	26021.43
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Effective Producing Time (min):	90.00
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INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.