Superior Testers Enterprises, Inc.

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

Date 1-17-1989 Location SW-NW-SE 22-24-14 Elevation 1959 G.L. 1964 K.B. County Stafford
Company National Petroleum Reserves Inc. Number of Copies 5
Charts Mailed to 260 North Rock Road Suite 215 Wichita Kansas 67206
Drilling Contractor Duke Drilling Rig #1
Length Drill Pipe 2818 I.D. Drill Pipe 3.80 Tool Joint Size 4½" F.H.
Length Weight Pipe 941 I.D. Weight Pipe 2.76 Tool Joint Size 4½" F.H.
Length Drill Collars None I.D. Drill Collars None Tool Joint Size None
Top Packer Depth 3781 Bottom Packer Depth 3786 Number of Packers 2 Packer Size 6¾
TESTED FROM 3786 TO 3816 ANCHOR LENGTH 30 TOTAL DEPTH 3816 Hole Size 7⅞
LEASE & WELL NO. Luby #1 FORMATION TESTED Kansas City TEST NO. 1
Mud Weight 9.4 Viscosity 43 Water Loss 11.2 Chlorides - Pits 32000 D.S.T. 48000
Maximum Temp. 102 °F Initial Hydrostatic Pressure (A) 2012 P.S.I. Final Hydrostatic Pressure (H) 1968 P.S.I.

Tool Open I.F.P. from 12:45 pm to 1:15 pm 30 min
Tool Closed I.C.I.P. from 1:15 pm to 1:45 pm 30 min
Tool Open F.F.P. from 1:45 pm to 2:15 pm 30 min
Tool Closed F.C.I.P. from 2:15 pm to 2:45 pm 30 min

from [B] 77 P.S.I. to [C] 116 P.S.I.
[D] 1155 P.S.I.
from [E] 110 P.S.I. to [F] 99 P.S.I.
[G] 1100 P.S.I.

Initial Blow weak blow built to 11 inches into the water
Final Blow weak blow built to 2 inches into the water
Total Feet Recovered 140 Gravity of Oil ____ Corrected

20 Feet of	Slightly oil & Gas cut mud	7 %Gas	1 %Oil	65 %Mud	27 %Water
60 Feet of	Slightly Oil & Gas cut mud	9 %Gas	1 %Oil	60 %Mud	30 %Water
60 Feet of	Slightly oil & Gas cut mud	12 %Gas	1 %Oil	87 %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

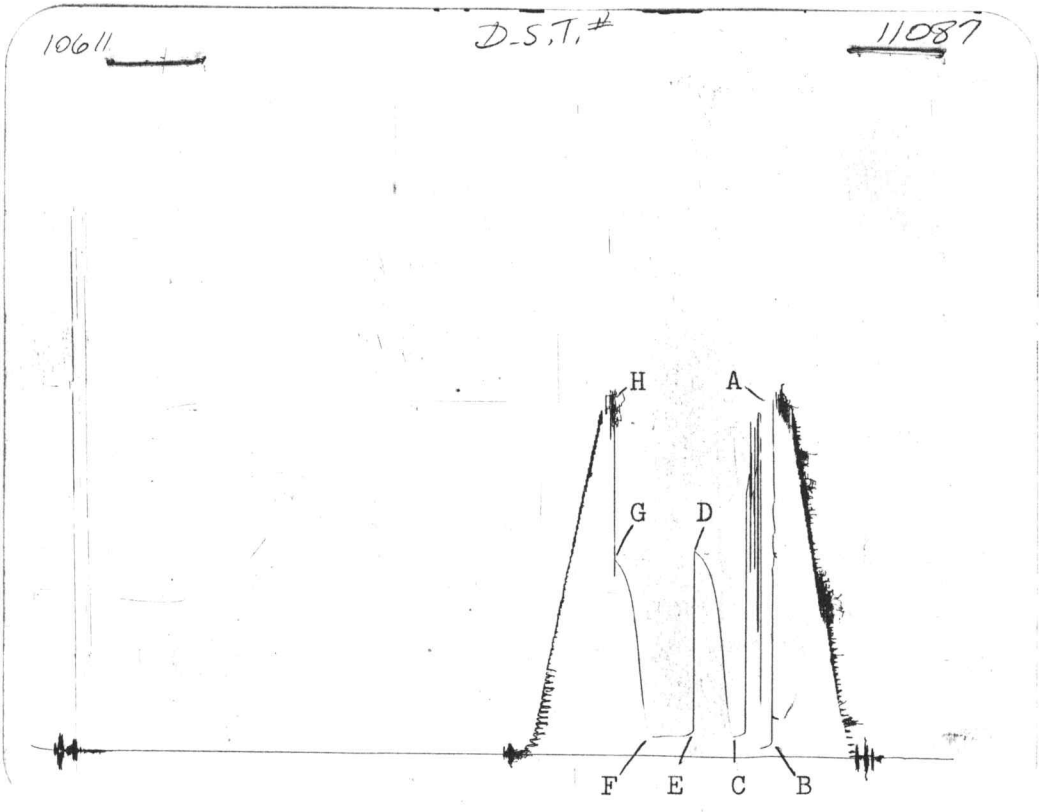
Remarks tool was sliding on both flows

Extra Equipment - Jars ____ Safety Joint ____ Extra Packer ____ Straddle ____ Hook Wall ____
Top Recorder No. 11087 Clock No. 47441 Depth 3810 Cir. Sub ____ Sampler ____
Bottom Recorder No. 906 Clock No. 47442 Depth 3813 Insurance ____
Price of Job ____
Tool Operator Gene 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.

№ 10611

COMPANY National Pet. Reserves LEASE - WELL NO. Ruby # 1 SEC. 22 TWP. RGE. FIELD NO. STATE



This is an actual photograph of recorder chart.

POINT		PRESSURE FIELD READING	PRESSURE OFFICE READING	
(A)	Initial Hydrostatic Mud	2012	2019	P.S.I.
(B)	First Initial Flow Pressure	77	71	P.S.I.
(C)	First Final Flow Pressure	110	110	P.S.I.
(D)	Initial Closed-in Pressure	1155	1154	P.S.I.
(E)	Second Initial Flow Pressure	110	142	P.S.I.
(F)	Second Final Flow Pressure	99	105	P.S.I.
(G)	Final Closed-in Pressure	1100	1106	P.S.I.
(H)	Final Hydrostatic Mud	1968	1975	P.S.I.

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : NATIONAL PET.RESERVES
ADDRESS : 260 N.ROCK ROAD,WICHITA
STATE & COUNTY : KANSAS,STAFFORD
ELEV.(GR) : 1959 (KB) : 1964

WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
FIELD :
TEST DATE : 1-17-1989

EQUIPMENT AND HOLE DATA

FORMATION TESTED : KANSAS CITY
TEST INT. KB : 3786 to 3816
ANCHOR LENGTH(ft) : 30
TYPE OF TEST : Conventional
TOTAL DEPTH(ft-kb) : 3816
MAIN HOLE SIZE(in) : 7 7/8
MUD WEIGHT : 9.6
MUD VISCOSITY : 42
MUD CHLORIDES : 32000
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) : 102

DRILL PIPE LENGTH(ft) : 2818
DRILL PIPE O.D.(in) : 3.82
WEIGHT PIPE LENGTH(ft) : 941
WEIGHT PIPE ID : 2.75
DRILL COLLAR LENGTH(ft) :
DRILL COLLAR I.D.(in) : 2.259
TOP PACKER DEPTH(kb) : 3781
BOTTOM PACKER DEPTH(kb) : 3786
DUAL PACKERS : YES
PACKER SIZE(in) : 6 3/4
PACKER HOLD : Yes
TOOL PLUG : No
REVERSED OUT : No
TEST TICKET NUMBER : 10611

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 BLOW BUILDING TO 11 INCHES INTO THE WATER
2nd Opening : WEAK BLOW BUILT TO 2 INCHES INTO THE WATER

RECOVERY

Recovered	20	feet of	SLIGHTLY OIL AND GAS CUT MUD-7%GAS 1%OIL 27%WATER
Recovered	60	feet of	SLIGHTLY OIL & GAS CUT MUD 9%GAS 1%OIL 30%WATER
Recovered	60	feet of	SLIGHTLY OIL & GAS CUT MUD 12%GAS 1%OIL 87%MUD

REMARKS :

TOOL SLIDE OPEN ON THE FIRST OPENING

WITNESSED BY : HOWELL CRENSHAW TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

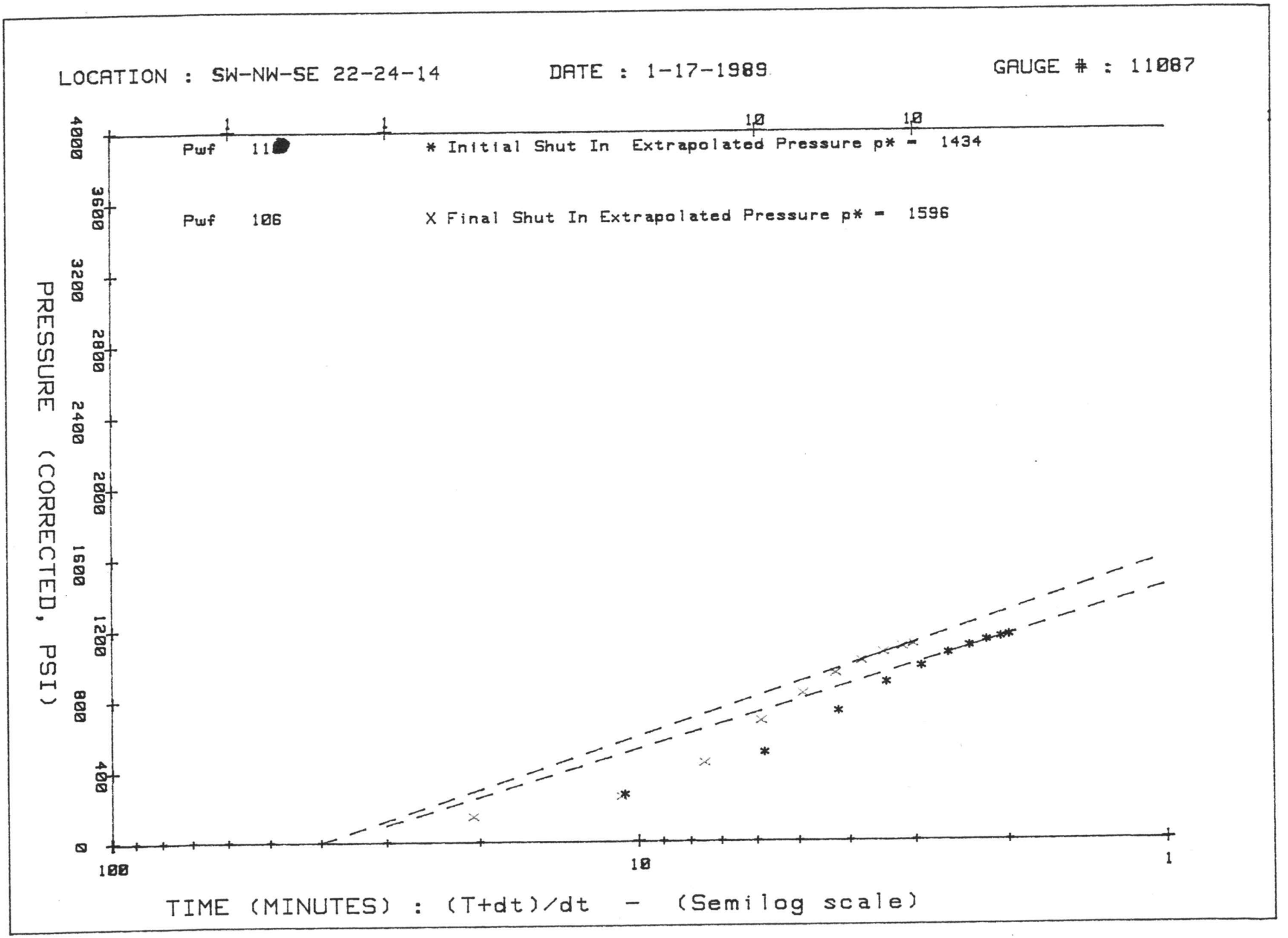
SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : NATIONAL PET.RESERVES
DATE OF TEST : 1-17-1989
DEPTH : 3810.0

WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG CALC	CORR	CORRECTED
TEST NO.:1					
Depth : 3810.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.836	2014.08	5.57	2019.65
-12:45 1ST FLOW	0.0	.065	76.19	-4.60	71.59
- 12:50	5.0	.046	55.40	-4.74	50.66
- 12:54	9.0	.040	48.83	-4.78	44.05
-TOOL SLIDING	15.0	1.519	1667.21	4.22	1671.43
- 13:05	20.0	.126	142.94	-4.17	138.77
- 13:10	25.0	.105	119.96	-4.32	115.64
- 13:14	29.0	.100	114.49	-4.35	110.13
-1:15 END FLOW	0.0	.100	114.49	-4.35	110.13
- 1:18	3.0	.243	270.96	-3.34	267.62
- 1:21	6.0	.455	502.94	-1.84	501.10
- 1:24	9.0	.665	732.73	-.35	732.38
- 1:27	12.0	.810	891.39	.68	892.07
- 1:30	15.0	.892	981.12	1.26	982.38
- 1:33	18.0	.958	1053.34	1.60	1054.95
- 1:36	21.0	.995	1093.83	1.78	1095.60
- 1:39	24.0	1.023	1124.47	1.91	1126.37
- 1:42	27.0	1.039	1141.97	1.98	1143.96
- 1:44	29.0	1.049	1152.92	2.03	1154.95
-1:43 1ST SHUT-IN	0.0	1.049	1152.92	2.03	1154.95
-1:43 2ND FLOW	0.0	.129	146.22	-4.15	142.07
- 1:48	5.0	.105	119.96	-4.32	115.64
- 1:53	10.0	.100	114.49	-4.35	110.13
- 1:58	15.0	.100	114.49	-4.35	110.13
- 2:03	20.0	.100	114.49	-4.35	110.13
- 2:08	25.0	.096	110.11	-4.38	105.73
- 2:13	30.0	.096	110.11	-4.38	105.73
-2:13 END FLOW	0.0	.096	110.11	-4.38	105.73
- 2:16	3.0	.132	149.50	-4.13	145.37
- 2:19	6.0	.233	260.02	-3.41	256.61
- 2:22	9.0	.406	449.32	-2.18	447.14
- 2:25	12.0	.619	682.39	-.68	681.72
- 2:28	15.0	.758	834.49	.31	834.80
- 2:31	18.0	.859	945.01	1.02	946.04
- 2:34	21.0	.923	1015.04	1.44	1016.48
- 2:37	24.0	.966	1062.09	1.64	1063.74
- 2:40	27.0	.993	1091.64	1.77	1093.41
- 2:42	29.0	1.006	1105.86	1.83	1107.69
- 2:13	0.0	1.006	1105.86	1.83	1107.69
-2:42 2ND SHUT-IN	0.0	1.006	1105.86	1.83	1107.69


LOCATION : SW-NW-SE 22-24-14
DATE : 1-17-1989
GAUGE # : 11087
Pwf 11
* Initial Shut In Extrapolated Pressure p* = 1434
Pwf 106
X Final Shut In Extrapolated Pressure p* = 1596
PRESSURE (CORRECTED, PSI)
4000
3600
3200
2800
2400
2000
1600
1200
800
400
0
100
10
1
TIME (MINUTES) : (T+dt)/dt - (Semilog scale)

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : NATIONAL PET.RESERVES
WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
STATE & COUNTY : KANSAS,STAFFORD
DATE OF TEST : 1-17-1989
TEST INT. KB : 3786 to 3816
TOTAL INTERVAL (ft) K.B. : 30.00
ELEV.(GR) : 1959 (KB) : 1964
FIELD :

ELEMENT SERIAL NO. : 11087
LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	PRESSURES CORR PSIG
Refer. depth : 3810.0 ft-kb			
-1:15 END FLOW	0.00	0.00	110.13
	3.00	10.67	267.62
	6.00	5.83	501.10
	9.00	4.22	732.38
	12.00	3.42	892.07
	15.00	2.93	982.38
	18.00	2.61	1055.07
	21.00	2.38	1095.81
	24.00	2.21	1126.65
	27.00	2.07	1144.27
	29.00	2.00	1155.29

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : NATIONAL PET.RESERVES
WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
STATE & COUNTY : KANSAS,STAFFORD
DATE OF TEST : 1-17-1989
TEST INT. KB : 3786 to 3816
TOTAL INTERVAL (ft) K.B. : 30.00
ELEV.(GR) : 1959 (KB) : 1964
FIELD :

ELEMENT SERIAL NO. : 11087
LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	PRESSURES CORR PSIG
Refer. depth : 3810.0 ft-kb			
-2:13 END FLOW	0.00	0.00	105.73
	3.00	20.67	145.37
	6.00	10.83	256.61
	9.00	7.56	447.14
	12.00	5.92	681.72
	15.00	4.93	834.80
	18.00	4.28	946.04
	21.00	3.81	1016.52
	24.00	3.46	1063.88
	27.00	3.19	1093.61
	29.00	3.03	1107.93
	0.00	0.00	1107.93
-2:42 2ND SHUT-IN	0.00	0.00	1107.93

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

D A T A S U M M A R Y

COMPANY : NATIONAL PET.RESERVES
DATE OF TEST : 1-17-1989
DST. NO : 1

WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY

Oil (md.ft/cp):	.08
Gas (md.ft/cp):	0.00

EFFECTIVE PERMEABILITY

Oil (md):	.01
Gas (md):	0.00
TOTAL MOBILITY (md/cp):	.01
TOTAL COMPRESSIBILITY (psi-1):	7.40E-06
ESTIMATED DAMAGE RATIO:	.34
CALCULATED DAMAGE RATIO:	.99
Reservoir Temperature (F):	102.00
Formation Porosity :	.18
Formation Thickness (ft):	10.00
Wellbore Radius (in):	3.94
Reservoir Compressibility (psi-1):	4.80E-07
Calculated Skin Factor :	-.02
PRODUCTION WITH DAMAGE REMOVED (bbl/D):	.49
PRODUCTIVITY INDEX (bbl/psi):	0.00
Final Flow Pressure (psi):	106.00
APPROXIMATE RADIUS OF INVESTIGATION (ft):	2.49
Total Flowing Time (min):	59.00
EXTRAPOLATED RESERVOIR PRESSURE (psi):	1596.00
Slope of Build-up Curve (psi/log cycle):	995.66
Effective Producing Time (min):	59.00

Superior Testers Enterprises, Inc.

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

Date 1-18-1989 Location SW-NW-SE 22-24-14 Elevation 1959 G.L. 1964 K.B. County Stafford

Company National Petroleum Reserves Inc. Number of Copies 5

Charts Mailed to 260 North Rock Road Suite 315 Wichita Kansas 67206

Drilling Contractor Duke Drilling Co. #1

Length Drill Pipe 3060 I.D. Drill Pipe 3.380 Tool Joint Size 4½" F.H.

Length Weight Pipe 941 I.D. Weight Pipe 2.75 Tool Joint Size 4½" F.H.

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

Top Packer Depth 4023 Bottom Packer Depth 4028 Number of Packers 2 Packer Size 6 3/4"

TESTED FROM 4028 TO 4068 ANCHOR LENGTH 40 TOTAL DEPTH 4068 Hole Size 7⅞"

LEASE & WELL NO. Luby #1 FORMATION TESTED Mississippi TEST NO. 2

Mud Weight 9.7 Viscosity 46 Water Loss 10.4 Chlorides - Pits 30000 D.S.T. 44000

Maximum Temp. 110 °F Initial Hydrostatic Pressure (A) 2275 P.S.I. Final Hydrostatic Pressure (H) 2242 P.S.I.

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

Tool Closed I.C.I.P. from 6:00 pm to 6:30 pm 30 min

Tool Open F.F.P. from 6:30 pm to 7:15 pm 45 min

Tool Closed F.C.I.P. from 7:15 pm to 8:00 pm 45 min

from [B]	77	P.S.I. to [C]	66 P.S.I.
[D]	221		P.S.I.
from [E]	77	P.S.I. to [F]	88 P.S.I
[G]	420		P.S.I.

Initial Blow Fair Blow built to the bottom of a 5 Gallon Bucket in 11 min.

Final Blow Strong Blow built to the bottom of a 5 Gallon Bucket in 1 min.

Total Feet Recovered 100 Gravity of Oil ____ Corrected

40 Feet of	oil cut mud	16 %Gas	8 %Oil	68 %Mud	10 %Water
60 Feet of	oil cut mud	23 %Gas	20 %Oil	45 %Mud	12 %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
____ Feet of		____ %Gas	____ %Oil	____ %Mud	____ %Water

Remarks

Extra Equipment - Jars ____ Safety Joint ____ Extra Packer ____ Straddle ____ Hook Wall ____

Top Recorder No. 11087 Clock No. 47441 Depth 4062 Cir. Sub ____ Sampler ____

Bottom Recorder No. 906 Clock No. 47442 Depth 4065 Insurance ____

Price of Job ____

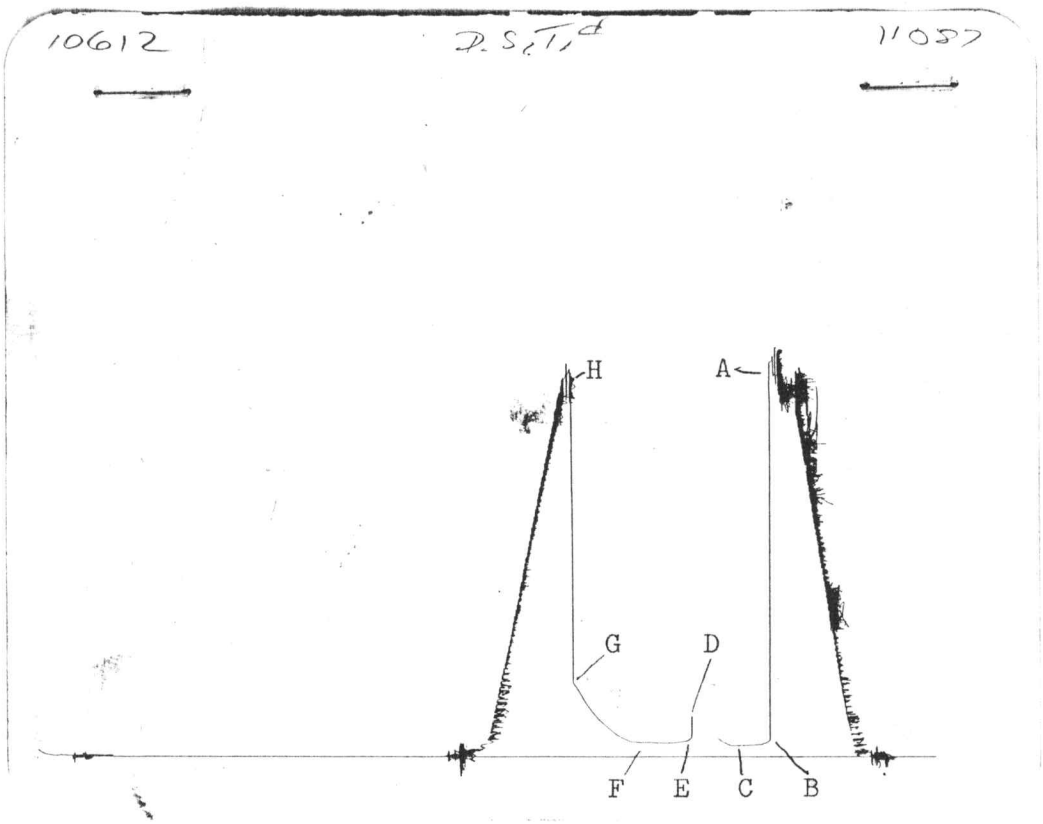
Tool Operator Jane Sudy

Approved By ____

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№ 10612

COMPANY National Pet. Reserves LEASE - WELL NO. Ruby # 1 SEC. 22 TWP. 24 RGE. 14 TEST NO. 2 DATE 1-10-1982



This is an actual photograph of recorder chart.

POINT		PRESSURE FIELD READING	PRESSURE OFFICE READING	
(A)	Initial Hydrostatic Mud	2275	2171	P.S.I.
(B)	First Initial Flow Pressure	77	92	P.S.I.
(C)	First Final Flow Pressure	66	60	P.S.I.
(D)	Initial Closed-in Pressure	221	222	P.S.I.
(E)	Second Initial Flow Pressure	77	85	P.S.I.
(F)	Second Final Flow Pressure	88	79	P.S.I.
(G)	Final Closed-in Pressure	420	411	P.S.I.
(H)	Final Hydrostatic Mud	2242	2150	P.S.I.

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : NATIONAL PET.RESERVES
ADDRESS : 260 N.ROCK ROAD,WICHITA
STATE & COUNTY : KANSAS,STAFFORD
ELEV.(GR) : 1959 (KB) : 1964

WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
FIELD :
TEST DATE : 1-18-1989

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI
TEST INT. KB : 4028 to 4068
ANCHOR LENGTH(ft) : 40
TYPE OF TEST : Conventional
TOTAL DEPTH(ft-kb) : 4068
MAIN HOLE SIZE(in) : 7 7/8
MUD WEIGHT : 9.7
MUD VISCOSITY : 46
MUD CHLORIDES : 30000
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) : 3060
DRILL PIPE O.D.(in) : 3.82
WEIGHT PIPE LENGTH(ft) : 941
WEIGHT PIPE ID : 2.75
DRILL COLLAR LENGTH(ft) :
DRILL COLLAR I.D.(in) : 2.259
TOP PACKER DEPTH(kb) : 4023
BOTTOM PACKER DEPTH(kb) : 4028
DUAL PACKERS :
PACKER SIZE(in) : 6 3/4
PACKER HOLD : Yes
TOOL PLUG : No
REVERSED OUT : No
TEST TICKET NUMBER : 10612

EXTRA EQUIPMENT :

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

SURFACE BLOW

1st Opening : FAIR BLOW BUILT TO BOTTOM OF THE BUCKET IN 11 MIN.
2nd Opening : STRONG BLOW BUILT TO BOTTOM OF THE BUCKET 1 MIN.

RECOVERY

Recovered 40 feet of OIL CUT MUD 16%GAS 8%OIL 10%WATER 68%MUD
Recovered 60 feet of OIL CUT MUD 23%GAS 20%OIL 12%WATER 45%MUD

REMARKS :

WITNESSED BY : HOWELL CRENSHAW TOOL OPERATOR : GENE BUDIG

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : NATIONAL PET.RESERVES
WELL NAME : RUBY #1
DATE OF TEST : 1-18-1989
LOCATION : SW-NW-SE 22-24-14
DEPTH : 4062.0
SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG CALC	CORR	CORRECTED
TEST NO.:2					
Depth : 4062.0 ft-kb					
-1ST HYDROSTATIC	0.0	1.975	2166.18	5.22	2171.40
-5:30 1ST FLOW	0.0	.084	96.98	-4.47	92.51
- 5:35	5.0	.067	78.38	-4.59	73.79
- 5:40	10.0	.062	72.90	-4.62	68.28
- 5:45	15.0	.058	68.53	-4.65	63.88
- 5:50	20.0	.057	67.43	-4.66	62.78
- 5:55	25.0	.054	64.15	-4.68	59.47
- 5:59	29.0	.055	65.24	-4.67	60.57
-5:59 END FLOW	0.0	.055	65.24	-4.67	60.57
- 6:02	3.0	.064	75.09	-4.61	70.48
- 6:05	6.0	.071	82.75	-4.56	78.19
- 6:08	9.0	.086	99.17	-4.45	94.71
- 6:11	12.0	.099	113.39	-4.36	109.03
- 6:14	15.0	.118	134.18	-4.23	129.96
- 6:17	18.0	.133	150.59	-4.12	146.48
- 6:20	21.0	.145	163.73	-4.03	159.69
- 6:23	24.0	.162	182.33	-3.91	178.41
- 6:26	27.0	.197	220.63	-3.67	216.96
- 6:27	28.0	.202	226.10	-3.63	222.47
-6:27 1ST SHUT-IN	0.0	.202	226.10	-3.63	222.47
6:27 2ND FLOW	0.0	.093	106.83	-4.40	102.42
- 6:32	5.0	.078	90.41	-4.51	85.90
- 6:37	10.0	.072	83.85	-4.55	79.30
- 6:42	15.0	.070	81.66	-4.57	77.09
- 6:47	20.0	.069	80.56	-4.57	75.99
- 6:52	25.0	.069	80.56	-4.57	75.99
- 6:57	30.0	.071	82.75	-4.56	78.19
- 7:02	35.0	.071	82.75	-4.56	78.19
- 7:07	40.0	.071	82.75	-4.56	78.19
- 7:12	45.0	.072	83.85	-4.55	79.30
-7:12 END FLOW	0.0	.072	83.85	-4.55	79.30
- 7:15	3.0	.080	92.60	-4.49	88.11
- 7:18	6.0	.087	100.26	-4.45	95.81
- 7:21	9.0	.098	112.30	-4.37	107.93
- 7:24	12.0	.112	127.62	-4.27	123.35
- 7:27	15.0	.130	147.31	-4.14	143.17
- 7:30	18.0	.152	171.39	-3.98	167.40
- 7:33	21.0	.170	191.08	-3.86	187.22
- 7:36	24.0	.190	212.97	-3.72	209.25
- 7:39	27.0	.210	234.85	-3.57	231.28

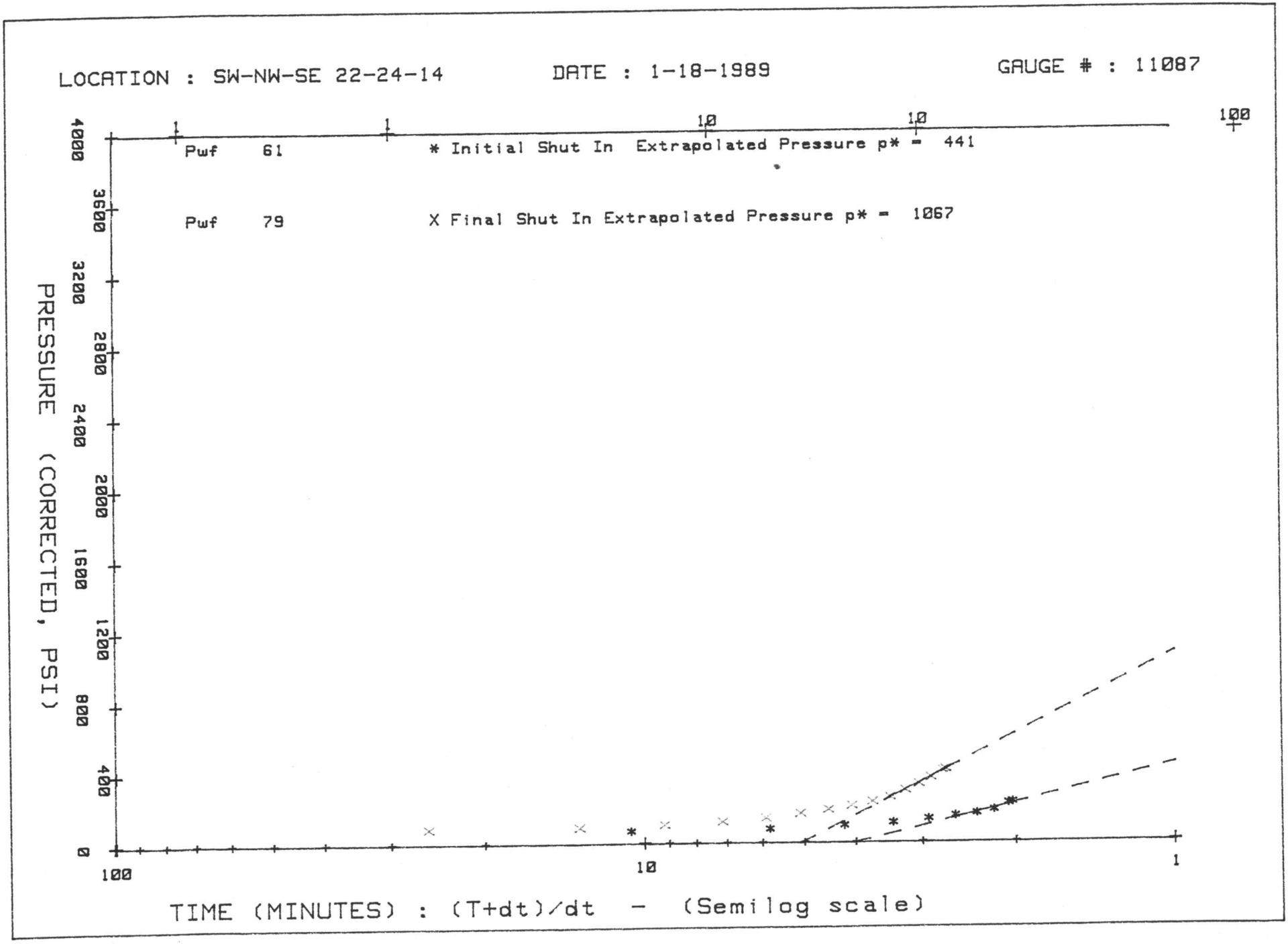
SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : NATIONAL PET.RESERVES
DATE OF TEST : 1-18-1989
DEPTH : 4062.0

WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG CALC	CORR	CORRECTED
TEST NO.:2					
- 7:42	30.0	.233	260.02	-3.41	256.61
- 7:45	33.0	.268	298.32	-3.16	295.15
- 7:48	36.0	.300	333.33	-2.94	330.40
- 7:51	39.0	.332	368.35	-2.71	365.64
- 7:54	42.0	.370	409.93	-2.44	407.49
- 7:55	43.0	.374	414.31	-2.41	411.89
-7:55 2ND SHUT-IN	0.0	.374	414.31	-2.41	411.89
-2ND HYDROSTATIC	0.0	1.956	2145.39	5.27	2150.66


LOCATION : SW-NW-SE 22-24-14
DATE : 1-18-1989
GAUGE # : 11087
Pwf 61
* Initial Shut In Extrapolated Pressure p* = 441
Pwf 79
X Final Shut In Extrapolated Pressure p* = 1067
PRESSURE (CORRECTED, PSI)
4000
3600
3200
2800
2400
2000
1600
1200
800
400
0
100
10
1
TIME (MINUTES) : (T+dt)/dt - (Semilog scale)

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : NATIONAL PET.RESERVES
WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
STATE & COUNTY : KANSAS,STAFFORD
DATE OF TEST : 1-18-1989
TEST INT. KB : 4028 to 4068
TOTAL INTERVAL (ft) K.B. : 40.00
ELEV.(GR) : 1959 (KB) : 1964
FIELD :

ELEMENT SERIAL NO. : 11087
LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	PRESSURES CORR PSIG
Refer. depth : 4062.0 ft-kb			
-5:59 END FLOW	0.00	0.00	60.57
	3.00	10.67	70.48
	6.00	5.83	78.19
	9.00	4.22	94.71
	12.00	3.42	109.03
	15.00	2.93	129.96
	18.00	2.61	146.48
	21.00	2.38	159.69
	24.00	2.21	178.41
	27.00	2.07	216.96
	28.00	2.04	222.47
-6:27 1ST SHUT-IN	0.00	0.00	222.47

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : NATIONAL PET.RESERVES
WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
STATE & COUNTY : KANSAS,STAFFORD
DATE OF TEST : 1-18-1989
JEST INT. KB : 4028 to 4068
TOTAL INTERVAL (ft) K.B. : 40.00
ELEV.(GR) : 1959 (KB) : 1964
FIELD :

ELEMENT SERIAL NO. : 11087
LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	PRESSURES CORR PSIG
Refer. depth : 4062.0 ft-kb			
-7:12 END FLOW	0.00	0.00	79.30
	3.00	25.67	88.11
	6.00	13.33	95.81
	9.00	9.22	107.93
	12.00	7.17	123.35
	15.00	5.93	143.17
	18.00	5.11	167.40
	21.00	4.52	187.22
	24.00	4.08	209.25
	27.00	3.74	231.28
	30.00	3.47	256.61
	33.00	3.24	295.15
	36.00	3.06	330.40
	39.00	2.90	365.64
	42.00	2.76	407.49
	43.00	2.72	411.89
-7:55 2ND SHUT-IN	0.00	0.00	411.89

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

D A T A S U M M A R Y

COMPANY : NATIONAL PET.RESERVES
DATE OF TEST : 1-18-1989
DST. NO : 2

WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

TRANSMISSIBILITY

Oil (md.ft/cp):	.36
Gas (md.ft/cp):	0.00

EFFECTIVE PERMEABILITY

Oil (md):	.03
Gas (md):	0.00
TOTAL MOBILITY (md/cp):	.04
TOTAL COMPRESSIBILITY (psi-1):	7.70E-04
ESTIMATED DAMAGE RATIO:	.14
CALCULATED DAMAGE RATIO:	2.70
Reservoir Temperature (F):	110.00
Formation Porosity :	.18
Formation Thickness (ft):	10.00
Wellbore Radius (in):	3.94
Reservoir Compressibility (psi-1):	4.80E-07
Calculated Skin Factor :	.47
PRODUCTION WITH DAMAGE REMOVED (bbl/D):	8.93
PRODUCTIVITY INDEX (bbl/psi):	0.00
Final Flow Pressure (psi):	79.00
APPROXIMATE RADIUS OF INVESTIGATION (ft):	.58
Total Flowing Time (min):	74.00
EXTRAPOLATED RESERVOIR PRESSURE (psi):	1067.00
Slope of Build-up Curve (psi/log cycle):	1508.89
Effective Producing Time (min):	74.00

Superior Testers Enterprises, Inc.

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

Date 1-19-1989 Location SW-NW-SE-22-24-14 Elevation 1959 G.L. 1964 K.B. County Stafford

Company National Petroleum Reserves Inc. Number of Copies 5

Charts Mailed to 260 North Rock Road, Suite 215 Wichita Kansas 67206

Drilling Contractor Duke Drilling Rig #1

Length Drill Pipe 3100 I.D. Drill Pipe 3.80 Tool Joint Size 4½" F.H.

Length Weight Pipe 941 I.D. Weight Pipe 2.75 Tool Joint Size 4½" F.H.

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

Top Packer Depth 4063 Bottom Packer Depth 4068 Number of Packers 2 Packer Size 6¾"

TESTED FROM 4068 TO 4103 ANCHOR LENGTH 35 TOTAL DEPTH 4103 Hole Size 7⅞"

LEASE & WELL NO. Luby #1 FORMATION TESTED Mississippi & Kinderhook TEST NO. 3

Mud Weight 9.8 Viscosity 48 Water Loss 10.4 Chlorides - Pits 30000 D.S.T. 58000

Maximum Temp. 112 °F Initial Hydrostatic Pressure (A) 2296 P.S.I. Final Hydrostatic Pressure (H) 2275 P.S.I.

Tool Open I.F.P. from 6:15 AM to 6:45 AM 30 min

Tool Closed I.C.I.P. from 6:45 AM to 7:15 AM 30 min

Tool Open F.F.P. from 7:15 AM to 8:00 AM 45 min

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

from [B]	618 P.S.I.	to [C]	1243 P.S.I.
[D]	1243 P.S.I.		
from [E]	1243 P.S.I.	to [F]	1243 P.S.I
[G]	1243 P.S.I.		

Initial Blow Strong blow built to the bottom of a 5 Gallon bucket in 15 sec.

Final Blow Fair blow built to the bottom of a 5 Gallon bucket in 3 min.

Total Feet Recovered 2700 Gravity of Oil ____ Corrected

150 Feet of	Gas in the Pipe	%Gas	%Oil	%Mud	%Water
2700 Feet of	Gassy Water - with a good show of	%Gas	%Oil	%Mud	%Water
____ Feet of	a Trace of oil between the Shut In's	%Gas	%Oil	%Mud	%Water
____ Feet of	Hydrolic tool	%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 Reversed fluid out

Extra Equipment - Jars ____ Safety Joint ____ Extra Packer ____ Straddle ____ Hook Wall ____

Top Recorder No. 11087 Clock No. 47441 Depth 4097 Cir. Sub Yes Sampler ____

Bottom Recorder No. 906 Clock No. 47442 Depth 4100 Insurance ____

Price of Job ____

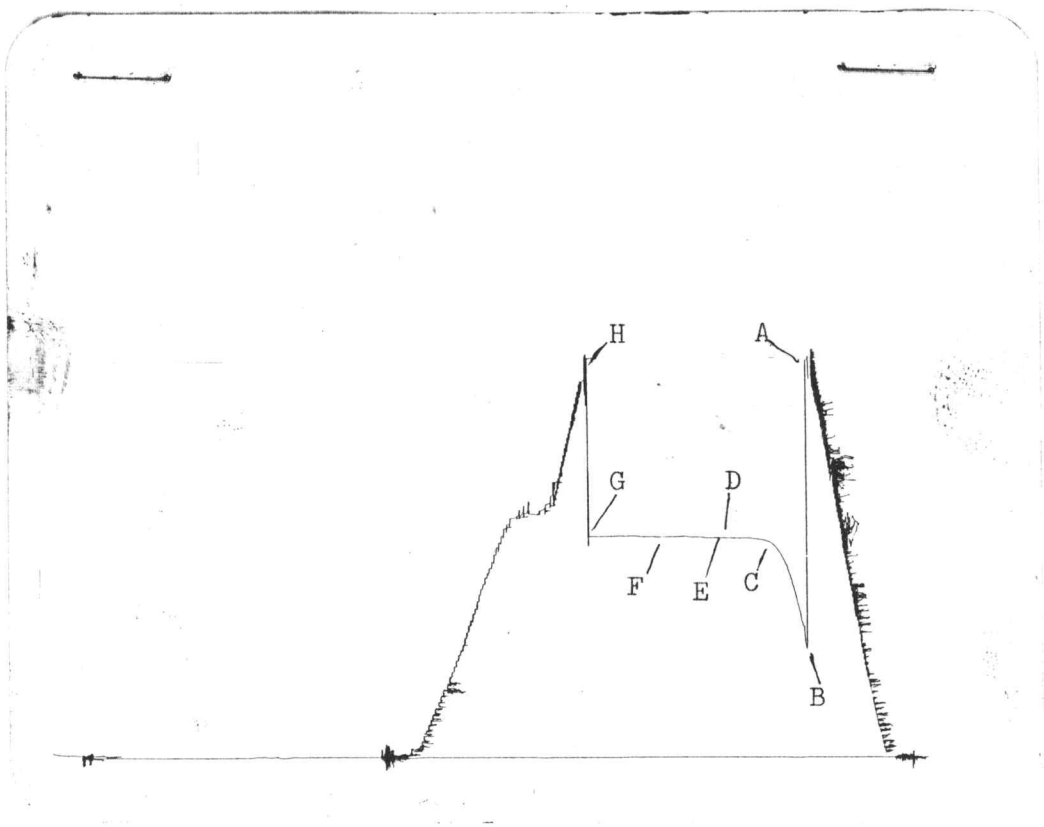
Tool Operator Dave Rudig

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.

№ 10613

COMPANY National Pet. Reserves LEASE - WELL NO Kuby # 1 SEC 22 TWP 6T RGE. 17 TEST NO 2 DATE



This is an actual photograph of recorder chart.

POINT		PRESSURE FIELD READING	PRESSURE OFFICE READING	
(A)	Initial Hydrostatic Mud	2296	2245	P.S.I.
(B)	First Initial Flow Pressure	618	614	P.S.I.
(C)	First Final Flow Pressure	1243	1229	P.S.I.
(D)	Initial Closed-in Pressure	1243	1241	P.S.I.
(E)	Second Initial Flow Pressure	1243	1241	P.S.I.
(F)	Second Final Flow Pressure	1243	1248	P.S.I.
(G)	Final Closed-in Pressure	1243	1248	P.S.I.
(H)	Final Hydrostatic Mud	2275	2131	P.S.I.

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : NATIONAL PET.RESERVES
ADDRESS : 260 N.ROCK ROAD,WICHITA
STATE & COUNTY : KANSAS,STAFFORD
ELEV.(GR) : 1959 (KB) : 1964

WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
FIELD :
TEST DATE : 1-19-1989

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISS.&KINDERHOOK
TEST INT. KB : 4068 to 4103
ANCHOR LENGTH(ft) : 35
TYPE OF TEST : Conventional
TOTAL DEPTH(ft-kb) : 4103
MAIN HOLE SIZE(in) : 7 7/8
MUD WEIGHT : 9.8
MUD VISCOSITY : 48
MUD CHLORIDES : 30000
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) : 112

DRILL PIPE LENGTH(ft) : 3100
DRILL PIPE O.D.(in) : 3.82
WEIGHT PIPE LENGTH(ft) : 941
WEIGHT PIPE ID : 2.75
DRILL COLLAR LENGTH(ft) :
DRILL COLLAR I.D.(in) : 2.259
TOP PACKER DEPTH(kb) : 4063
BOTTOM PACKER DEPTH(kb) : 4068
DUAL PACKERS :
PACKER SIZE(in) : 6 3/4
PACKER HOLD : Yes
TOOL PLUG : No
REVERSED OUT : No
TEST TICKET NUMBER : 10613

EXTRA EQUIPMENT :

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

SURFACE BLOW

1st Opening : STRONG BLOW-BUILT TO BOTTOM OF BUCKET IN 15 SEC.
2nd Opening : FAIR BLOW-BUILT TO BOTTOM OF BUCKET IN 3 MIN.

RECOVERY

Recovered 150 feet of GAS IN THE PIPE
Recovered 2700 feet of VERY GASSY WATER CHLORIDES 58000

REMARKS :

WITNESSED BY : HOWELL CRENSHAW TOOL OPERATOR : GENE BUDIG

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : NATIONAL PET.RESERVES
DATE OF TEST : 1-19-1989
DEPTH : 4097.0

WELL NAME : RUBY #1
LOCATION : SW-NW-SE 22-24-14
SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG CALC	CORR	CORRECTED
TEST NO.:3					
Depth : 4097.0 ft-kb					
-1ST HYDROSTATIC	0.0	2.043	2240.59	5.05	2245.63
-6:15 1ST FLOW	0.0	.558	615.65	-1.11	614.54
- 6:20	5.0	.745	820.27	.22	820.48
- 6:25	10.0	.878	965.80	1.16	966.96
- 6:30	15.0	.989	1087.26	1.75	1089.01
- 6:35	20.0	1.059	1163.86	2.08	1165.93
- 6:40	25.0	1.101	1209.82	2.27	1212.09
- 6:45	30.0	1.117	1227.32	2.35	1229.67
-6:45 END FLOW	0.0	1.117	1227.32	2.35	1229.67
- 6:50	5.0	1.123	1233.89	2.37	1236.26
- 6:55	10.0	1.127	1238.27	2.39	1240.66
- 7:00	15.0	1.128	1239.36	2.40	1241.76
- 7:05	20.0	1.128	1239.36	2.40	1241.76
- 7:10	25.0	1.128	1239.36	2.40	1241.76
-1ST SHUT-IN	30.0	1.128	1239.36	2.40	1241.76
-7:15 2ND FLOW	0.0	1.128	1239.36	2.40	1241.76
- 7:30	15.0	1.128	1239.36	2.40	1241.76
- 7:45	30.0	1.134	1245.93	2.43	1248.35
- 8:00	45.0	1.134	1245.93	2.43	1248.35
-8:00 END FLOW	0.0	1.134	1245.93	2.43	1248.35
- 8:15	15.0	1.134	1245.93	2.43	1248.35
- 8:30	30.0	1.134	1245.93	2.43	1248.35
- 8:45	45.0	1.134	1245.93	2.43	1248.35
- 9:00	60.0	1.134	1245.93	2.43	1248.35
-9:00 2ND SHUT-IN	0.0	1.134	1245.93	2.43	1248.35
-2ND HYDROSTATIC	.1	1.938	2125.69	5.31	2131.00
- 9:00	0.0	1.938	2125.69	5.31	2131.00