

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION OR RECOMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 4381
Name Mohawk Petroleum, Inc.
Address P.O. Box 2082
City/State/Zip Hutchinson, KS 67504-2082

Purchaser Alpine Petroleum, Inc.
Box 66, El Dorado, KS 67402

Operator Contact Person Dean Pattison
Phone 316-689-8393

Contractor: License # 5929
Name Duke Drilling Co., Inc.

Wellsite Geologist Dean Pattison
Phone 316-689-8393

Designate Type of Completion

X New Well Re-Entry Workover
X Oil SWD Temp Abd
Gas Inj Delayed Comp.
Dry Other (Core, Water Supply etc.)

If ONWO: old well info as follows:

Operator
Well Name
Comp. Date Old Total Depth

WELL HISTORY

Drilling Method:

X Mud Rotary Air Rotary Cable

9-12-88 9-22-88 10-19-88
Spud Date Date Reached TD Completion Date

4446' PBD
Total Depth

Amount of Surface Pipe Set and Cemented at 222 feet
Multiple Stage Cementing Collar Used? Yes X No
If yes, show depth set feet
If alternate 2 completion, cement circulated from feet depth to w/ SX cmt
Cement Company Name
Invoice #

AT I

API NO. 15-15-077-21,181-0000
County Harper
NE.. NE...NW.... Sec.27.. Twp..31 Rge...8.. East
West
4950 Ft North from Southeast Corner of Section
2970 Ft West from Southeast Corner of Section
(Note: Locate well in section plat below)

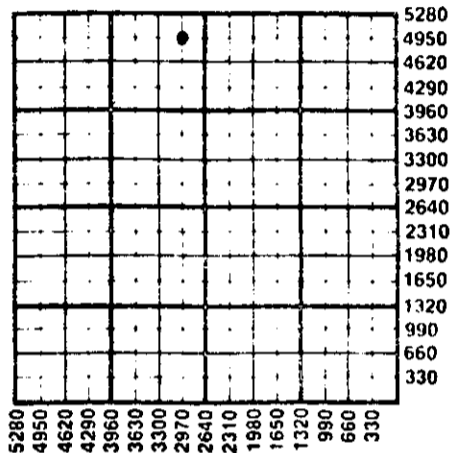
Lease Name Muir Well # 1

Field Name Spivey-Grabs

Producing Formation Mississippi Chert

Elevation: Ground 1604' KB 1621'

Section Plat



WATER SUPPLY INFORMATION

Disposition of Produced Water: Disposal
Docket # Repressuring

Questions on this portion of the ACO-1 call:
Water Resources Board (913) 296-3717

Source of Water:
Division of Water Resources Permit #

Groundwater Ft North from Southeast Corner (Well) Ft West from Southeast Corner of Sec Twp Rge East West

X Surface Water 4950 Ft North from Southeast Corner (Stream, pond etc.) 2970 Ft West from Southeast Corner Sec 26 Twp 31 Rge 8 East X West

Other (explain) (purchased from city, R.W.D. #)

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. 82-3-130, 82-3-107 and 82-3-106 apply.

Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form. See rule 82-3-107 for confidentiality in excess of 12 months. One copy of all wireline logs and drillers time log shall be attached with this form. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

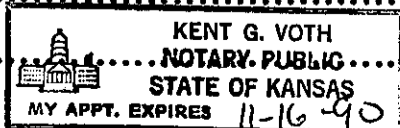
Signature [Signature]

Title Sec Date 10-31-88

Subscribed and sworn to before me this 31st day of October 1988

Notary Public [Signature]

Date Commission Expires



K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Drillers Timelog Received
Distribution
KCC SWD/Rep NGPA
KGS Plug Other
(Specify)
11-4-88

RECEIVED
STATE CORPORATION COMMISSION
11-4-88
OIL & GAS CONSERVATION DIVISION
Wichita, Kansas

Sec 27 Twp 31 Rge 8 E

Operator Name Mohawk Petroleum Inc. Lease Name Muir Well # 1

Sec. 27: Twp. 31: Rge. 8 East West County Harder

WELL LOG

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No

Formation Description
 Log Sample

Name Top Bottom

Drill Stem Attached

Log Attached

CASING RECORD <input checked="" type="checkbox"/> New <input checked="" type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (in O.D.)	Weight Lbs/Ft.	Setting Depth	Type of Cement	#Sacks Used	Type and Percent Additives
Surface	12 1/4"	8-5/8"	20#	222'	60/40 pozz	160	2% gel 3% cc
Production	7-7/8"	4 1/2"		4432'	Surfill	125	
PERFORATION RECORD				Acid, Fracture, Shot, Cement Squeeze Record			
Shots Per Foot	Specify Footage of Each Interval Perforated			(Amount and Kind of Material Used)		Depth	
	Open Hole Completion			500 Gal.	52% Mud Acid	4446	
TUBING RECORD		Size	Set At	Packer at	Liner Run	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		2 7/8"	4300	N/A			
Date of First Production		Producing Method					
10/19/88		<input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (explain).....					
Estimated Production Per 24 Hours		Oil	Gas	Water	Gas-Oil Ratio	Gravity	
➔		40 Bbls	40 MCF	40 Bbls	CFPB	38°	

METHOD OF COMPLETION

Production Interval

Disposition of gas: Vented Open Hole Perforation
 Sold Other (Specify) 4430'
 Used on Lease Dually Completed 4446'
 Commingled

15-077-21181-0000
Superior Testers Enterprises, Inc.
 R.R. 3, Box 295B, Great Bend, Kansas 67530
 (316) 792-6902

Date 9-22-1988 Location NE-NE-NE 27-31-8 Elevation 16046.1 County Harper
 Company Mohawk Petroleum Number of Copies 5
 Charts Mailed to P.O. Box 2082, Hutchinson Kansas, 67504-2082
 Drilling Contractor Duke Drilling Company Rig #3
 Length Drill Pipe 5967 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2" X.H.
 Length Weight Pipe 315 I.D. Weight Pipe 2.75 Tool Joint Size 4 1/2" X.H.
 Length Drill Collars 123 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X.H.
 Top Packer Depth 4420 Bottom Packer Depth 4425 Number of Packers 2 Packer Size 6-3/4
 TESTED FROM 4425 TO 4446 ANCHOR LENGTH 21 TOTAL DEPTH 4446 Hole Size 7 7/8
 LEASE & WELL NO. Miss. # 1-27 FORMATION TESTED Mississippi TEST NO. 2
 Mud Weight 9.31 Viscosity 48 Water Loss 10.4 Chlorides - Pits 7500 D.S.T. _____
 Maximum Temp. 117 °F Initial Hydrostatic Pressure (A) 2351 P.S.I. Final Hydrostatic Pressure (H) 2318 P.S.I.

Tool Open I.F.P. from 2:30 A m to 5:00 A m 30 min
 Tool Closed I.C.I.P. from 3:00 A m to 4:00 A m 60 min
 Tool Open F.F.P. from 4:00 A m to 5:00 A m 60 min
 Tool Closed F.C.I.P. from 5:00 A m to 6:30 A m 90 min

from [B] 8110 P.S.I. to [C] 99 P.S.I.
 [D] 1353 P.S.I.
 from [E] 121 P.S.I. to [F] 154 P.S.I.
 [G] 1353 P.S.I.

Initial Blow Strong blow - Gas to surface in 5 min

Final Blow Strong Blow

Total Feet Recovered 460 Gravity of Oil _____ Corrected _____

<u>40</u> Feet of	<u>12</u> % Gas	<u>13</u> % Oil	<u>75</u> % Mud	<u>0</u> % Water
<u>80</u> Feet of	<u>28</u> % Gas	<u>50</u> % Oil	<u>15</u> % Mud	<u>7</u> % Water
<u>160</u> Feet of	<u>49</u> % Gas	<u>38</u> % Oil	<u>8</u> % Mud	<u>5</u> % Water
<u>120</u> Feet of	<u>63</u> % Gas	<u>30</u> % Oil	<u>2</u> % Mud	<u>5</u> % Water
<u>60</u> Feet of	<u>62</u> % Gas	<u>30</u> % Oil	<u>3</u> % Mud	<u>5</u> % 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. 11087 Clock No. 47441 Depth 4440 Cir. Sub none Sampler none
 Bottom Recorder No. 906 Clock No. 47442 Depth 4443 Insurance yes

Price of Job _____
 Tool Operator Gene Budy
 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, 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.

No 10242

Superior Testers Enterprises, Inc.

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

(316) 792-6902

Date 9-22-1988 Location NE-NE-NE 27-31-8 Elevation 16046.1 County Harper 1611 K.B.

Company Mohawk Petroleum Number of Copies 5

Charts Mailed to P.O. Box 2082 Hutchinson Kansas 67504-2082

Drilling Contractor Duke Drilling Company Rig #2

Length Drill Pipe 5967 I.D. Drill Pipe 3.30 Tool Joint Size 4 1/2" X.H.

Length Weight Pipe 315 I.D. Weight Pipe 2.75 Tool Joint Size 4 1/2" X.H.

Length Drill Collars 123 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X.H.

Top Packer Depth 4460 Bottom Packer Depth 4425 Number of Packers 2 Packer Size 6-3/4

TESTED FROM 4425 TO 4446 ANCHOR LENGTH 21 TOTAL DEPTH 4446 Hole Size 7 7/8

LEASE & WELL NO. Miss # 1-27 FORMATION TESTED Mississippi TEST NO. 2

Mud Weight 9.31 Viscosity 48 Water Loss 10.4 Chlorides - Pits 7500 D.S.T. _____

Maximum Temp. 117 °F Initial Hydrostatic Pressure (A) 2351 P.S.I. Final Hydrostatic Pressure (H) 2318 P.S.I.

Tool Open I.F.P. from 2:30 A m to 3:00 A m 30 min

Tool Closed I.C.I.P. from 3:00 A m to 4:00 A m 60 min

Tool Open F.F.P. from 4:00 A m to 5:00 A m 60 min

Tool Closed F.C.I.P. from 5:00 A m to 6:30 A m 90 min

Initial Blow Strong blow - Gas to surface in 5 min

Final Blow Strong Blow

Total Feet Recovered 460 Gravity of Oil _____ Corrected _____

<u>40</u> Feet of	Frothy Oil	12 % Gas	13 % Oil	25 % Mud	0 % Water
<u>80</u> Feet of		28 % Gas	50 % Oil	15 % Mud	7 % Water
<u>160</u> Feet of		49 % Gas	38 % Oil	8 % Mud	5 % Water
<u>120</u> Feet of		63 % Gas	30 % Oil	2 % Mud	5 % Water
<u>60</u> Feet of		62 % Gas	30 % Oil	3 % Mud	5 % 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. 11087 Clock No. 47441 Depth 4440 Cir. Sub none Sampler none

Bottom Recorder No. 906 Clock No. 47442 Depth 4443 Insurance yes

Price of Job _____

Tool Operator Gene Budig

Approved By _____

No 10242

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Superior Testers Enterprises, Inc.

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

(316) 792-6902

GAS FLOW REPORT

Date 9-27-1968 Ticket # 10242 Company Mohawk Petroleum
 Well Name and No Muir #1-27 DST No. 2 Interval Tested 4425-4426
 County Harper State Kansas Sec. 27 Twp. 31 Rg. 8

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

<i>Tool open at 2:30 A.M.</i>							
<i>2:35</i>	<i>5</i>	<i>28</i>				<i>1</i>	<i>137.</i>
<i>2:45</i>	<i>15</i>	<i>40</i>				<i>1</i>	<i>163.</i>
<i>2:55</i>	<i>25</i>	<i>46</i>				<i>1</i>	<i>173.</i>

SECOND FLOW

<i>Tool open at 4:00 A.M.</i>							
<i>4:10</i>	<i>10</i>	<i>36</i>				<i>1</i>	<i>155.</i>
<i>4:20</i>	<i>20</i>	<i>32</i>				<i>1</i>	<i>146.</i>
<i>4:30</i>	<i>30</i>	<i>30</i>				<i>1</i>	<i>141.</i>
<i>4:40</i>	<i>40</i>	<i>28</i>				<i>1</i>	<i>137</i>
<i>4:50</i>	<i>50</i>	<i>26</i>				<i>1</i>	<i>132</i>
<i>5:00</i>	<i>60</i>	<i>26</i>				<i>1</i>	<i>132</i>

GAS BOTTLE

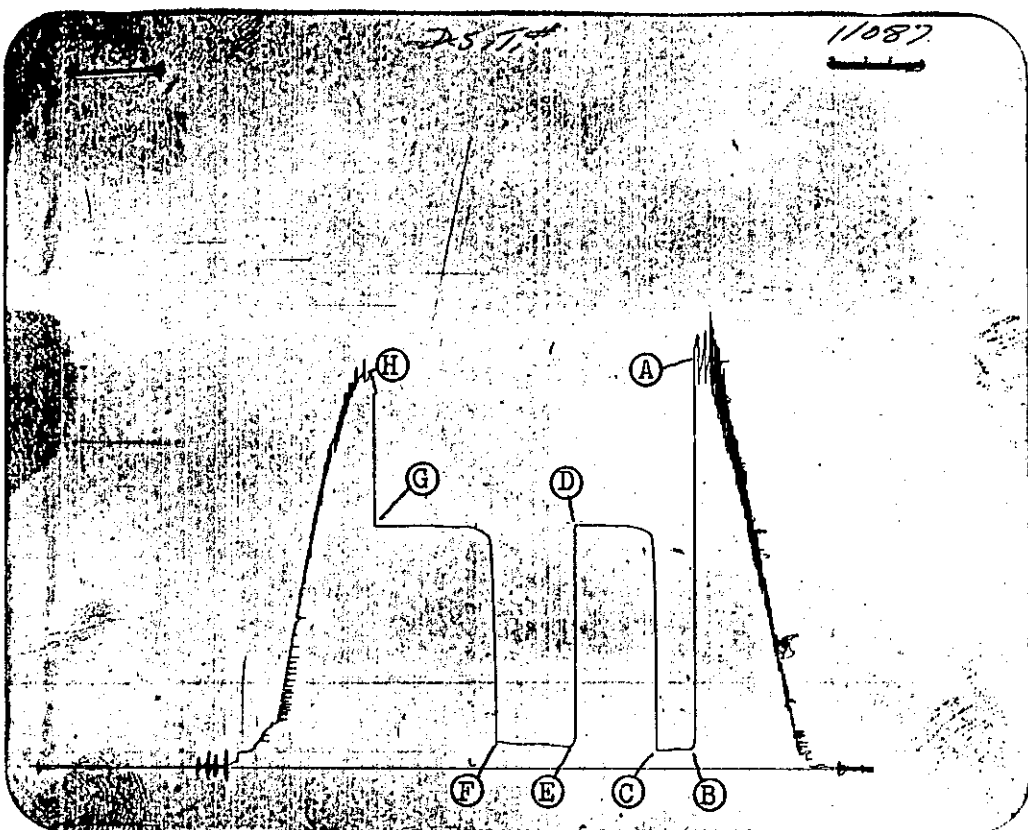
Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____ Test Ticket # _____

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		P.S.I.
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2351	2264	P.S.I.
(B) First Initial Flow Pressure	110	105	P.S.I.
(C) First Final Flow Pressure	99	102	P.S.I.
(D) Initial Closed-in Pressure	1353	1341	P.S.I.
(E) Second Initial Flow Pressure	121	125	P.S.I.
(F) Second Final Flow Pressure	154	145	P.S.I.
(G) Final Closed-in Pressure	1353	1339	P.S.I.
(H) Final Hydrostatic Mud	2318	2168	P.S.I.

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : MOHAWK PETROLEUM WELL NAME : MUTR #1-27
ADDRESS : P.O. BOX 2082, HUTCHINSON LOCATION : NE-NE-NW 27-31-8
STATE & COUNTY : KANSAS, HARPER FIELD :
ELEV. (GR) : 1604 (KB) : 1611 TEST DATE : 9-31-1988

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI DRILL PIPE LENGTH(ft) : 3967
TEST INT. KB : 4425 to 4446 DRILL PIPE O.D. (in) : 3.82
ANCHOR LENGTH(ft) : 21 WEIGHT PIPE LENGTH(ft) : 315
TYPE OF TEST : Conventional WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-kg) : 4445 DRILL COLLAR LENGTH(ft) : 123
MAIN HOLE SIZE(in) : 7 7/8 DRILL COLLAR I.D. (in) : 2.259
MUD WEIGHT : 9.3 TOP PACKER DEPTH(kb) : 4420
MUD VISCOSITY : 48 BOTTOM PACKER DEPTH(kb) : 4425
MUD CHLORIDES : 7500 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) : 117 TEST TICKET NUMBER : 10242

EXTRA EQUIPMENT :
-INSURANCE

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

CLOCK RANGE : 12 HOURS

SURFACE BLOW

1st Opening : STRONG BLOW-GAS TO SURFACE IN 5 MIN.
2nd Opening : STRONG BLOW

RECOVERY

Recovered 460 feet of FROTHY OIL

REMARKS :

WITNESSED BY : DEAN PATTYSON

TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : MOHAWK PETROLEUM
 DATE OF TEST : 9-21-1988
 DEPTH : 4440.0

WELL NAME : MUIR #1-27
 LOCATION : NE-NE-NW 27-31-8
 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			CALC	CORR	CORRECTED
TEST No. : 2					
Depth : 4440.0 ft-KB					
1ST HYDROSTATIC	0.0	2.060	2259.19	5.00	2264.19
2:30 1ST FLOW	0.0	.096	110.11	-4.38	105.73
- 2:35	5.0	.096	110.11	-4.38	105.73
- 2:40	10.0	.096	110.11	-4.38	105.73
- 2:45	15.0	.097	111.20	-4.37	106.83
- 2:50	20.0	.095	109.01	-4.39	104.63
- 2:55	25.0	.093	106.83	-4.40	102.42
- 2:59	29.0	.093	106.83	-4.40	102.42
2:59 END FLOW	0.0	.093	106.83	-4.40	102.42
- 3:02	3.0	1.162	1276.56	2.56	1279.12
- 3:05	6.0	1.186	1302.83	2.67	1305.49
- 3:08	9.0	1.197	1314.86	2.72	1317.58
- 3:11	12.0	1.204	1322.52	2.75	1325.27
- 3:14	15.0	1.200	1318.15	2.73	1320.88
- 3:17	18.0	1.214	1333.46	2.80	1336.26
- 3:20	21.0	1.217	1336.75	2.81	1339.56
- 3:23	24.0	1.218	1337.84	2.82	1340.66
- 3:26	27.0	1.218	1337.84	2.82	1340.66
- 3:29	30.0	1.218	1337.84	2.82	1340.66
- 3:32	33.0	1.218	1337.84	2.82	1340.66
- 3:35	36.0	1.218	1337.84	2.82	1340.66
- 3:38	39.0	1.218	1337.84	2.82	1340.66
- 3:41	42.0	1.219	1338.94	2.82	1341.76
- 3:44	45.0	1.219	1338.94	2.82	1341.76
- 3:47	48.0	1.219	1338.94	2.82	1341.76
- 3:50	51.0	1.219	1338.94	2.82	1341.76
- 3:53	54.0	1.219	1338.94	2.82	1341.76
- 3:56	57.0	1.219	1338.94	2.82	1341.76
- 3:59	60.0	1.219	1338.94	2.82	1341.76
3:59 1ST SHUT-IN	0.0	1.219	1338.94	2.82	1341.76
3:59 2ND FLOW	.1	.114	129.80	-4.25	125.55
- 4:04	5.0	.114	129.80	-4.25	125.55
- 4:09	10.0	.114	129.80	-4.25	125.55
- 4:14	15.0	.115	130.90	-4.25	126.65
- 4:19	20.0	.120	136.37	-4.21	132.16
- 4:24	25.0	.121	137.46	-4.20	133.26
- 4:29	30.0	.121	137.46	-4.20	133.26
- 4:34	35.0	.121	137.46	-4.20	133.26
- 4:39	40.0	.121	137.46	-4.20	133.26
- 4:44	45.0	.121	137.46	-4.20	133.26

UPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

WELL : MOHAWK PETROLEUM
 DATE OF TEST : 9-21-1988
 : 4440.0

WELL NAME : MUIR #1-27
 LOCATION : NE-NE-NW 27-31-8
 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
NO.: 2					
- 4:49	50.0	.125	141.84	-4.18	137.67
- 4:54	55.0	.129	146.22	-4.15	142.07
- 4:58	59.0	.132	149.50	-4.13	145.37
END FLOW	0.0	.132	149.50	-4.13	145.37
- 5:01	3.0	1.000	1099.30	1.80	1101.10
- 5:04	6.0	1.168	1283.13	2.58	1285.71
- 5:07	9.0	1.184	1300.64	2.66	1303.30
- 5:10	12.0	1.194	1311.58	2.71	1314.29
- 5:13	15.0	1.204	1322.52	2.75	1325.27
- 5:16	18.0	1.211	1330.18	2.78	1332.97
- 5:19	21.0	1.214	1333.46	2.80	1336.26
- 5:22	24.0	1.215	1334.56	2.80	1337.36
- 5:25	27.0	1.215	1334.56	2.80	1337.36
- 5:28	30.0	1.215	1334.56	2.80	1337.36
- 5:31	33.0	1.215	1334.56	2.80	1337.36
- 5:34	36.0	1.215	1334.56	2.80	1337.36
- 5:37	39.0	1.215	1334.56	2.80	1337.36
- 5:40	42.0	1.215	1334.56	2.80	1337.36
- 5:43	45.0	1.216	1335.65	2.81	1338.46
- 5:46	48.0	1.216	1335.65	2.81	1338.46
- 5:49	51.0	1.216	1335.65	2.81	1338.46
- 5:52	54.0	1.216	1335.65	2.81	1338.46
- 5:55	57.0	1.216	1335.65	2.81	1338.46
- 5:58	60.0	1.217	1336.75	2.81	1339.56
- 6:01	63.0	1.217	1336.75	2.81	1339.56
- 6:04	66.0	1.217	1336.75	2.81	1339.56
- 6:07	69.0	1.217	1336.75	2.81	1339.56
- 6:10	72.0	1.217	1336.75	2.81	1339.56
- 6:13	75.0	1.217	1336.75	2.81	1339.56
- 6:16	78.0	1.217	1336.75	2.81	1339.56
- 6:19	81.0	1.217	1336.75	2.81	1339.56
- 6:22	84.0	1.217	1336.75	2.81	1339.56
- 6:25	87.0	1.217	1336.75	2.81	1339.56
- 6:27	89.0	1.217	1336.75	2.81	1339.56
2ND SHUT-IN	0.0	1.217	1336.75	2.81	1339.56
HYDROSTATIC	0.0	1.972	2162.90	5.23	2168.12

CALCULATED RECOVERY ANALYSIS

Number: 2

Test ticket number: 10242

Well #	Total Feet	***** Gas ****		***** Oil ****		***** Mud ****	
		%	Feet	%	Feet	%	Feet
1	40	12.00	4.80	13.00	5.20	75.00	30.00
2	80	28.00	22.40	50.00	40.00	15.00	12.00
3	160	49.00	78.40	38.00	60.80	8.00	12.80
4	120	53.00	75.60	30.00	36.00	2.00	2.40
5	60	52.00	37.20	30.00	18.00	3.00	1.80
	460	47.48	218.40	34.73	160.00	12.83	59.00

Well #	Total Feet	***** WATER ****		Chlorides (ppm)	Resistivity (ohms)	Temperature (deg)
		%	Feet			
1	40	0.00	0.00	0.00	0.00	0.00
2	80	7.00	5.60	0.00	0.00	0.00
3	160	5.00	8.00	0.00	0.00	0.00
4	120	5.00	6.00	0.00	0.00	0.00
5	60	5.00	3.00	0.00	0.00	0.00
	460	4.91	22.60			

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

PERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

Y : MOHAWK PETROLEUM
 TEST : 9-21-1988

WELL NAME : MUIR #1-27
 LOCATION : NE-NE-NW 27-31-8

RECOVERY INFORMATION

NO RECOVERY

Total Fluid Recovered :

covered 460 feet of FROTHY OIL

Measured With : OFFICE TESTER
 (INCHES OF WATER)

Riser : 2 INCH

Time (min.)	Reading	Surface Choke (in.)	Cubic feet/day
2:35	28.00	1.00	137000
2:45	40.00	1.00	163000
2:55	46.00	1.00	173000
3:10	36.00	1.00	155000
3:20	32.00	1.00	146000
3:30	30.00	1.00	141000
3:40	29.00	1.00	137000
3:50	26.00	1.00	132000
4:00	26.00	1.00	132000

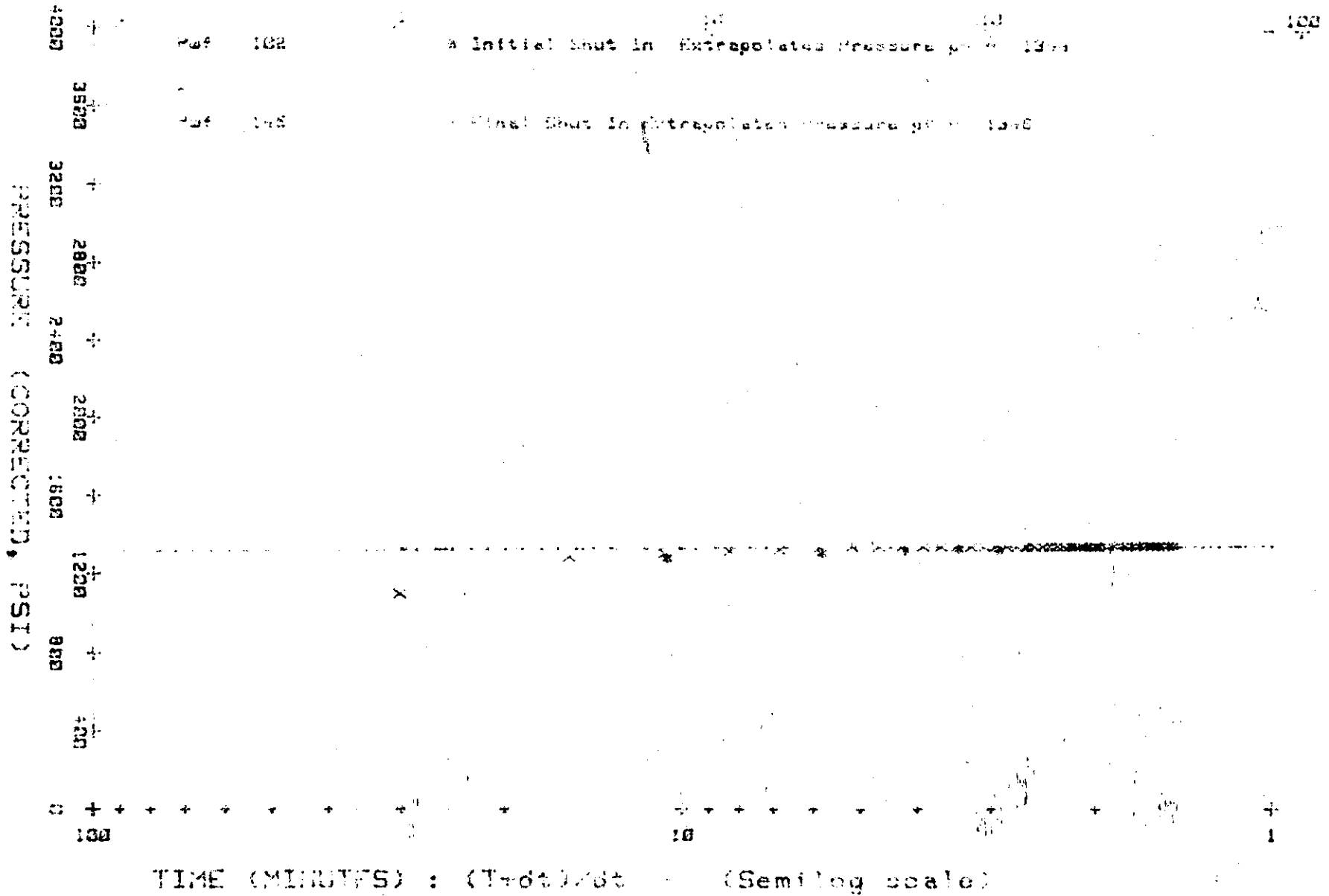
PROPERTIES

	Viscosity (cp)	Compressibility (psi-1)	Pore Space Saturation
Oil	.8	7.7E-6	.45
Water	.2	9.2E-6	.45
Gas	.45	3.1E-6	.10

LOCATION : NE-NW-1/4 27-31-8

DATE : 9-21-1988

GUAGE # : 11087



SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

BY : MOHAWK PETROLEUM
DATE TEST : 9-21-1988
WELL : 2

WELL NAME : MUIR #1-27-
LOCATION : NE-NE-NW 27-31-8
SHUT-IN PERIOD : 1

INTERPRETIVE DATA (OIL)

INITIAL RESERVOIR PRESSURE (psi):	1344.00
Flow Gradient Curve (psi/log cycle):	9.09
Flow Producing Time (min):	29.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : MOHAWK PETROLEUM
DATE OF TEST : 9-21-1988
DST. NO : 2

WELL NAME : MUIR #1-27
LOCATION : NE-NE-NW 27-31-8
SHUT-IN PERIOD : 1

INTERPRETIVE DATA (GAS)

EXTRAPOLATED RESERVOIR PRESSURE (psi):	1344.44
Slope of Build-up Curve (psi/log cycle):	27507.01
Effective Producing Time (min):	29.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : MOHAWK PETROLEUM
 WELL NAME : MUIR #1-27
 LOCATION : NE-NE-NW 27-31-8
 STATE & COUNTY : KANSAS, HARPER
 DATE OF TEST : 9-21-1988
 TEST INT. KB : 4425 to 4446
 TOTAL INTERVAL (ft) K.B. : 21.00
 ELEV. (GR) : 1604 (KB) : 1611
 FIELD :

ELEMENT SERIAL NO. : 11087
 LATEST CALIBRATION :

COMMENTS	TIME min	(T+dt)/dt min	PRESSURES CORR PSIG
Refer. depth :	4440.0 ft-kb		
-2:59 END FLOW	0.00	0.00	102.42
	3.00	10.67	1279.74
	6.00	5.83	1306.17
	9.00	4.22	1318.28
	12.00	3.42	1325.99
	15.00	2.93	1321.59
	18.00	2.61	1337.00
	21.00	2.38	1340.31
	24.00	2.21	1341.41
	27.00	2.07	1341.41
	30.00	1.97	1341.41
	33.00	1.88	1341.41
	36.00	1.81	1341.41
	39.00	1.74	1341.41
	42.00	1.69	1342.51
	45.00	1.64	1342.51
	48.00	1.60	1342.51
	51.00	1.57	1342.51
	54.00	1.54	1342.51
	57.00	1.51	1342.51
	60.00	1.48	1342.51
-3:59 1ST SHUT-IN	0.00	0.00	1342.51

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

HORNER ANALYSIS

COMPANY : MOHAWK PETROLEUM
 WELL NAME : MUIR #1-27
 LOCATION : NE-NE-NW 27-31-8
 STATE & COUNTY : KANSAS, HARPER
 DATE OF TEST : 9-21-1988
 TEST INTERVAL (K.B.) : 4425 to 4445
 TEST INTERVAL (ft) K.B. : 21.00
 Q. (GR) : 1604 (KB) : 1611
 Q.D. :

WELLSERIAL NO. : 11087
 TEST CALIBRATION :

COMMENTS	TIME min	dt/dt min	PRESSURE CORR PSIG
Test depth :	4440.0 ft-ks		
FR END FLOW	0.00	0.00	145.37
	3.00	30.33	1101.32
	6.00	15.67	1286.34
	9.00	10.78	1303.96
	12.00	8.33	1314.98
	15.00	6.87	1325.99
	18.00	5.89	1333.70
	21.00	5.19	1337.00
	24.00	4.67	1338.11
	27.00	4.26	1338.11
	30.00	3.93	1338.11
	33.00	3.67	1338.11
	36.00	3.44	1338.11
	39.00	3.26	1338.11
	42.00	3.10	1338.11
	45.00	2.96	1339.21
	48.00	2.83	1339.21
	51.00	2.73	1339.21
	54.00	2.63	1339.21
	57.00	2.54	1339.21
	60.00	2.47	1340.31
	63.00	2.40	1340.31
	66.00	2.33	1340.31
	69.00	2.28	1340.31
	72.00	2.22	1340.31
	75.00	2.17	1340.31
	78.00	2.13	1340.31
	81.00	2.09	1340.31
	84.00	2.05	1340.31
	87.00	2.01	1340.31

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

DATA SUMMARY

WELL : MUHAWK PETROLEUM
 DATE OF TEST : 9-21-1988
 WPT NO : 2

WELL NAME : MUIR #1-27
 LOCATION : NE-NE-NW 27-31-8
 SHUT-IN PERIOD : 2

INTERPRETIVE DATA (OIL)

PERMEABILITY	
Initial (md-ft/cp):	126.22
Current (md-ft/cp):	0.00
EFFECTIVE PERMEABILITY	
Initial (md):	12.32
Current (md):	0.00
MOBILITY (md/cp):	15.40
COMPRESSIBILITY (psi-1):	8.40E-06
INITIAL DAMAGE RATIO:	15.61
RELATIVE DAMAGE RATIO:	14.60
Reservoir Temperature (F):	117.00
Formation Porosity:	.18
Formation Thickness (ft):	10.00
Wellbore Radius (in):	3.94
Reservoir Compressibility (psi-1):	4.80E-07
Relative Skin Factor:	76.91
PRODUCTION WITH DAMAGE REMOVED (bbl/D):	189.85
ACTIVITY INDEX (bbl/psi):	.01
Flow Pressure (psi):	145.00
MINUTE RADIUS OF INVESTIGATION (ft):	124.79
Flowing Time (min):	88.00
INITIAL RESERVOIR PRESSURE (psi):	1346.00
Slope of Build-up Curve (psi/log cycle):	16.74
Effective Producing Time (min):	88.00

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES, INC.

SUPERIOR TESTERS ENTERPRISES INC.

DATA SUMMARY

COMPANY : MOHAWK PETROLEUM
DATE OF TEST : 9-21-1988
DST. NO : 2

WELL NAME : MUIR #1-27
LOCATION : NE-NE-NW 27-31-8
SHUT-IN PERIOD : 2

INTERPRETIVE DATA (GAS)

TRANSMISSIBILITY	0.00
Oil (md.ft/cp):	2949.09
Gas (md.ft/cp):	
EFFECTIVE PERMEABILITY	0.00
Oil (md):	18.47
Gas (md):	242.17
TOTAL MOBILITY (md/cp):	9.20E-04
TOTAL COMPRESSIBILITY (psi-1):	8.9
ESTIMATED DAMAGE RATIO:	10.0
CALCULATED DAMAGE RATIO:	117.0
Reservoir Temperature (F):	10.0
Formation Porosity :	3.
Formation Thickness (ft):	4.80E-07
Wellbore Radius (in):	42.
Reservoir Compressibility (psi-1):	1329.
Calculated Skin Factor :	
PRODUCTION WITH DAMAGE REMOVED (MCF/D):	
PRODUCTIVITY INDEX (MCF/psi):	145
Final Flow Pressure (psi):	47
APPROXIMATE RADIUS OF INVESTIGATION (ft):	98
Total Flowing Time (min):	1348
EXTRAPOLATED RESERVOIR PRESSURE (psi):	4373
Slope of Build-up Curve (psi/log cycle):	8
Effective Producing Time (min):	

Superior Testers Enterprises, Inc.

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

(316) 792-6902

Date 9-20-1988 Location NE-NE-NE 27-31-8 Elevation 1604 G.L. County Harper
Company Wagoner Petroleum Number of Copies _____
Charts Mailed to P.O. Box 2082, Hutchinson, Kansas 67504-2082
Drilling Contractor Duke Drilling Company, Sig #2
Length Drill Pipe 3967 I.D. Drill Pipe 3.80 Tool Joint Size 4 1/2" X 11
Length Weight Pipe 315 I.D. Weight Pipe 2.75 Tool Joint Size 4 1/2" X 11
Length Drill Collars 123 I.D. Drill Collars 2.25 Tool Joint Size 4 1/2" X 11
Top Packer Depth 4420 Bottom Packer Depth 4425 Number of Packers 2 Packer Size 6 3/4"
TESTED FROM 4425 TO 4435 ANCHOR LENGTH 10 TOTAL DEPTH 4435 Hole Size 7 7/8"
LEASE & WELL NO. Muir # 1-27 FORMATION TESTED Mississippi TEST NO. 1
Mud Weight 9.7 Viscosity 48 Water Loss 10.4 Chlorides - Pits 7500 D.S.T. _____
Maximum Temp. 120 °F Initial Hydrostatic Pressure (A) 2253 P.S.I. Final Hydrostatic Pressure (H) 2198 P.S.I.

Tool Open I.F.P. from 11:45 AM to 12:15 PM 30 min

Tool Closed I.C.I.P. from 12:15 AM to 1:15 PM 60 min

Tool Open F.F.P. from 1:15 AM to 2:15 PM 60 min

Tool Closed F.C.I.P. from 2:15 AM to 3:45 PM 90 min

Initial Blow Good blow - built to the bottom of a 7 gallon bucket in 15 min.

Final Blow Fair to Good blow - built to the bottom of a 7 gallon bucket in 55 min.

Total Feet Recovered 25 Gravity of Oil _____ Corrected _____

500 Feet of Gas in the Pipe % Gas _____ % Oil _____ % Mud _____ % Water _____

25 Feet of Slightly Oil! Gas out mud 0 % Gas 2 % Oil 75 % Mud 23 % 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

_____ 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. 11087 Clock No. 47441 Depth 4439 Cir. Sub none Sampler none

Bottom Recorder No. 906 Clock No. 47441 Depth 4433 Insurance yes

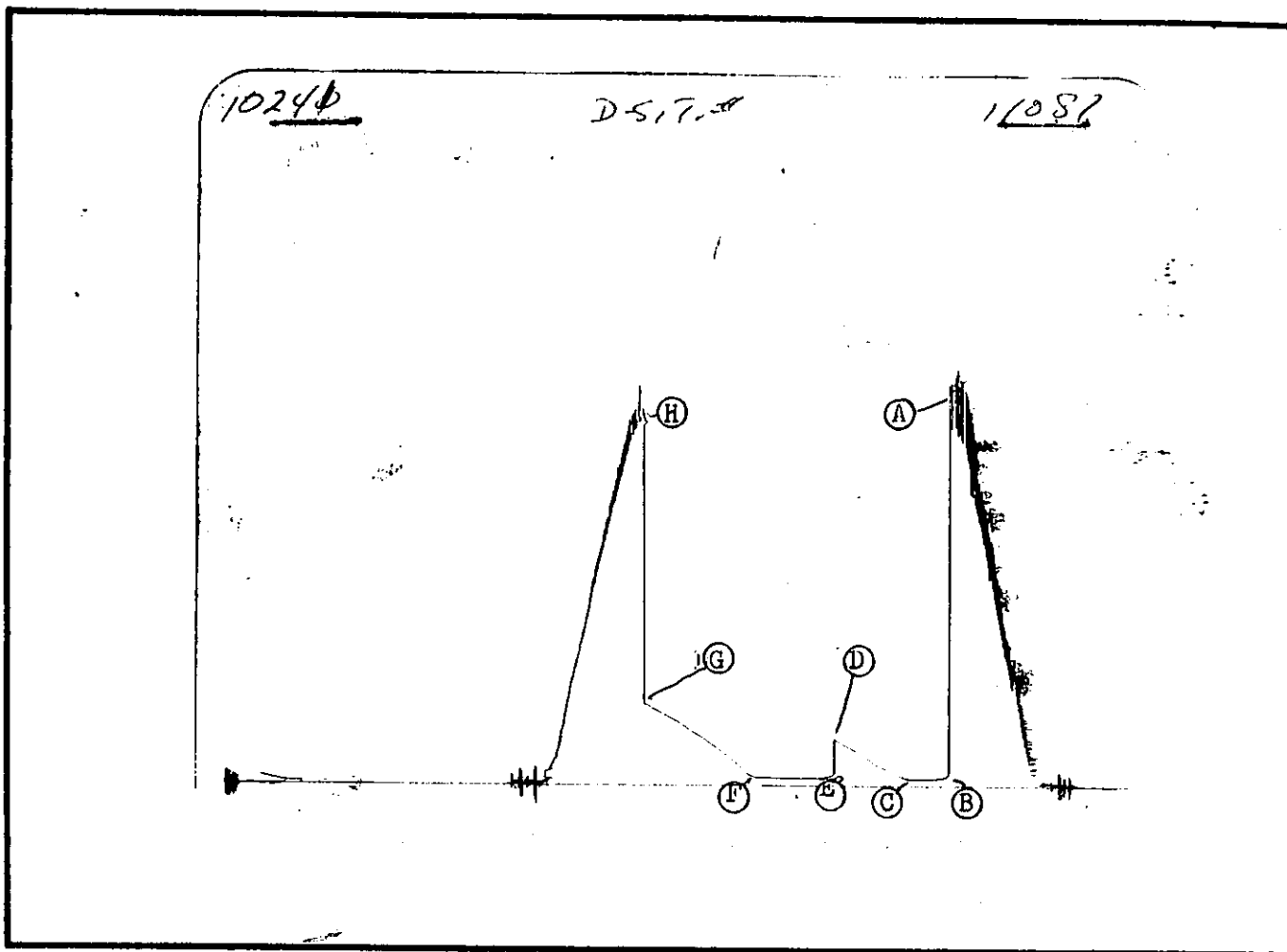
Price of Job _____

Tool Operator Gene Sudij

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, 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.

No 10241



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2253	2259	P.S.I.
(B) First Initial Flow Pressure	44	46	P.S.I.
(C) First Final Flow Pressure	33	41	P.S.I.
(D) Initial Closed-in Pressure	276	270	P.S.I.
(E) Second Initial Flow Pressure	55	56	P.S.I.
(F) Second Final Flow Pressure	44	46	P.S.I.
(G) Final Closed-in Pressure	486	475	P.S.I.
(H) Final Hydrostatic Mud	2198	2177	P.S.I.

SUPERIOR TESTERS ENTERPRISES INC.

WELL IDENTIFICATION DATA

COMPANY : MOHAWK PETROLEUM WELL NAME : MUIR #1-27
ADDRESS : P.O. BOX 2082, HUTCHINSON LOCATION : NE-NE-NW 27-31-8
STATE & COUNTY : KANSAS, HARPER FIELD :
ELEV. (GR) : 1604 (KB) : 1611 TEST DATE : 9-20-1988

EQUIPMENT AND HOLE DATA

FORMATION TESTED : MISSISSIPPI DRILL PIPE LENGTH(ft) : 392
TEST INT. KB : 4425 to 4435 DRILL PIPE O.D. (in) : 3.82
ANCHOR LENGTH(ft) : 10 WEIGHT PIPE LENGTH(ft) : 315
TYPE OF TEST : Conventional WEIGHT PIPE ID : 2.75
TOTAL DEPTH(ft-kg) : 4435 DRILL COLLAR LENGTH(ft) : 123
MAIN HOLE SIZE(in) : 7 7/8 DRILL COLLAR I.D. (in) : 2.259
MUD WEIGHT : 9.3 TOP PACKER DEPTH(kb) : 4420
MUD VISCOSITY : 48 BOTTOM PACKER DEPTH(kb) : 4425
MUD CHLORIDES : 7500 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) : 120 TEST TICKET NUMBER : 10241

EXTRA EQUIPMENT

ELEMENT SERIAL NO. : 11067
MUD LOG : 4435 CLOCK RANGE : 10 HOURS
MUD LOG : 1094114 : 08-11 : 5.06

SURFACE BLOW

at Opening : FAIR BLOW BUILT TO BOTTOM OF BUCKET IN 15 MIN.
at Closing : FAIR BLOW BUILT TO BOTTOM OF BUCKET IN 55 MIN.

RECOVERY

Recovered 500 feet of GAS IN THE PIPE
Recovered 25 feet of SLIGHTLY OIL AND GAS CUT MUD 2% OIL

REMARKS :

WITNESSED BY : DEAN PATTYSON TOOL OPERATOR : GENE BUDIG

INTERPRETATION BY : SUPERIOR TESTERS ENTERPRISES INC.

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : MOHAWK PETROLEUM
 DATE OF TEST : 9-20-1988
 DEPTH : 4429.0

WELL NAME : MUIR #1-27
 LOCATION : NE-NE-NW 27-31-8
 SERIAL NO. : 11987

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			CALC	CORR	CORRECTED
TEST NO.: 1					
Depth : 4429.0 ft-kb					
-1ST HYDROSTATIC	0.0	2.056	2254.81	5.01	2259.83
-11:45 1ST FLOW	0.0	.042	51.02	-4.76	46.26
- 11:50	5.0	.042	51.02	-4.76	46.26
- 11:55	10.0	.039	47.74	-4.79	42.95
- 12:00	15.0	.038	46.64	-4.79	41.85
- 12:05	20.0	.038	46.64	-4.79	41.85
- 12:10	25.0	.038	46.64	-4.79	41.85
- 12:16	31.0	.038	46.64	-4.79	41.85
-12:16	0.0	.038	46.64	-4.79	41.85
- 12:21	5.0	.049	58.68	-4.71	53.97
- 12:26	10.0	.065	76.19	-4.60	71.59
- 12:31	15.0	.081	93.69	-4.49	89.21
- 12:36	20.0	.093	106.83	-4.40	102.43
- 12:41	25.0	.106	121.05	-4.31	116.74
- 12:46	30.0	.136	153.88	-4.10	149.78
- 12:51	35.0	.156	175.76	-3.96	171.80
- 12:55	39.0	.170	191.08	-3.86	187.22
- 13:01	45.0	.196	219.53	-3.67	215.86
- 13:06	50.0	.214	239.23	-3.55	235.68
- 13:11	55.0	.238	265.49	-3.38	262.11
- 13:14	58.0	.246	274.24	-3.32	270.92
-13:14 1ST SHUT-IN	0.0	.246	274.24	-3.32	270.92
-13:14 2ND FLOW	0.0	.051	60.87	-4.70	56.17
- 1:19	5.0	.051	60.87	-4.70	56.17
- 1:24	10.0	.043	52.11	-4.76	47.35
- 1:29	15.0	.041	49.93	-4.77	45.15
- 1:34	20.0	.041	49.93	-4.77	45.15
- 1:39	25.0	.041	49.93	-4.77	45.15
- 1:44	30.0	.041	49.93	-4.77	45.15
- 1:49	35.0	.041	49.93	-4.77	45.15
- 1:54	40.0	.041	49.93	-4.77	45.15
- 1:59	45.0	.041	49.93	-4.77	45.15
- 2:04	50.0	.042	51.02	-4.76	46.26
- 2:09	55.0	.042	51.02	-4.76	46.26
- 2:13	59.0	.042	51.02	-4.76	46.26
- 2:15	61.0	.042	51.02	-4.76	46.26
-2:15 2ND FLOW	0.0	.042	51.02	-4.76	46.26
- 2:20	5.0	.053	63.06	-4.69	58.37
- 2:25	10.0	.083	95.88	-4.47	91.41
- 2:30	15.0	.116	131.99	-4.24	127.75

SUPERIOR TESTERS ENTERPRISES INC.

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY : MOHAWK PETROLEUM
 DATE OF TEST : 9-20-1988
 DEPTH : 4429.0

WELL NAME : MUIR #1-27
 LOCATION : NE-NE-NW 27-31-E
 SERIAL NO. : 11087

COMMENTS	TIME min	DEFL in	PRESSURE PSIG		
			----- CALC	CORR	CORRECTED
TEST NO.: 1					
- 2:35	20.0	.143	161.54	-4.05	157.49
- 2:40	25.0	.168	188.89	-3.87	185.02
- 2:45	30.0	.194	217.34	-3.69	213.66
- 2:50	35.0	.220	245.79	-3.50	242.29
- 2:55	40.0	.250	278.62	-3.29	275.33
- 3:00	45.0	.269	299.41	-3.16	296.26
- 3:05	50.0	.285	316.92	-3.04	313.88
- 3:10	55.0	.312	346.46	-2.85	343.61
- 3:15	60.0	.334	370.94	-2.70	367.24
- 3:20	65.0	.352	390.23	-2.57	387.67
- 3:25	70.0	.368	407.74	-2.45	405.29
- 3:30	75.0	.386	427.44	-2.33	425.11
- 3:35	80.0	.406	449.32	-2.18	447.14
- 3:40	85.0	.425	470.11	-2.05	468.06
-3:42 2ND SHUT-IN	87.0	.432	477.77	-2.00	475.77
-3ND HYDROSTATIC	0.0	1.981	2172.74	5.20	2177.95