



WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET N<sup>o</sup> 12167

#4-13 Miller

P. O. BOX 1599 WICHITA, KANSAS 67201 PHONE (316) 262-5861 Elevation \_\_\_\_\_ Formation Miss Eff. Pay \_\_\_\_\_ Ft. \_\_\_\_\_

District Pratt Date 4/15/87 Customer Order No. \_\_\_\_\_

COMPANY NAME F.G. Holl Estate

ADDRESS 6427 East Kellogg Wichita, KS 67207

LEASE AND WELL NO. Miller #4-13 COUNTY Edwards STATE Ks Sec. 13 Twp. 24 Rge. 174

Mail Invoice To Same 1 copy alt Merrick No. Copies Requested 5

Co. Name Same Address PO Box 158 Delpe, K. 67519 No. Copies Requested 5

Formation Test No. 1 Interval Tested From 4230 ft. to 4284 ft. Total Depth 4284 ft.

Packer Depth 4225 ft. Size 6 7/8 in. Packer Depth - ft. Size - in.

Packer Depth 4230 ft. Size 6 7/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4274 ft. Recorder Number 3086 Cap. 4500

Bottom Recorder Depth (Outside) 4277 ft. Recorder Number 13552 Cap. 4050

Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_

Drilling Contractor Sterling Rig #4 Drill Collar Length 395 I. D. 2 1/4 in.

Mud Type Premix Viscosity 5.5 Weight Pipe Length \_\_\_\_\_ I. D. \_\_\_\_\_ in.

Weight 9.2 Water Loss 9.6 cc. Drill Pipe Length 3811 I. D. 3.8 in.

Chlorides 10,000 P.P.M. Test Tool Length 24 ft. Tool Size 5 1/2 00 in.

Jars: Make \_\_\_\_\_ Serial Number \_\_\_\_\_ Anchor Length 54 ft. Size 5 1/2 00 in.

Did Well Flow? No Reversed Out No Surface Choke Size 3 1/4 in. Bottom Choke Size 3 1/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow: Weak blow throughout flow periods

Recovered 30 ft. of Only Mud

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Chlorides \_\_\_\_\_ P.P.M. Sample Jars used \_\_\_\_\_ Remarks: \_\_\_\_\_

Time On Location 5:00 A.M. Time Pick Up Tool 7:00 A.M. Time Off Location 12:00 A.M.

Time Set Packer(s) 8:40 P.M. Time Started Off Bottom 9:40 A.M. Maximum Temperature 113<sup>o</sup>

Initial Hydrostatic Pressure \_\_\_\_\_ (A) 2210 P.S.I.

Initial Flow Period \_\_\_\_\_ Minutes 15 (B) 118 P.S.I. to (C) 153 P.S.I.

Initial Closed In Period \_\_\_\_\_ Minutes 15 (D) 153 P.S.I.

Final Flow Period \_\_\_\_\_ Minutes 15 (E) 106 P.S.I. to (F) 82 P.S.I.

Final Closed In Period \_\_\_\_\_ Minutes 15 (G) 71 P.S.I.

Final Hydrostatic Pressure \_\_\_\_\_ (H) 2187 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages 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, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made. All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Frank P. Gub  
Signature of Customer or his authorized representative

Western Representative Jim Wondra Thank You

FIELD INVOICE

Open Hole Test	\$ <u>450-</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ _____
Safety Joint	\$ <u>2250</u>
Standby	\$ _____
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage	\$ _____
Fluid Sampler	\$ _____
Extra Charts	\$ _____
Insurance	\$ <u>75-</u>
Telecopier	\$ _____
TOTAL	\$ _____

2376

WESTERN TESTING CO., INC.

Pressure Data

Date 4-15-87 Test Ticket No. 12167  
 Recorder No. 3086 Capacity 4500 Location \_\_\_\_\_ Ft.  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature 113 °F

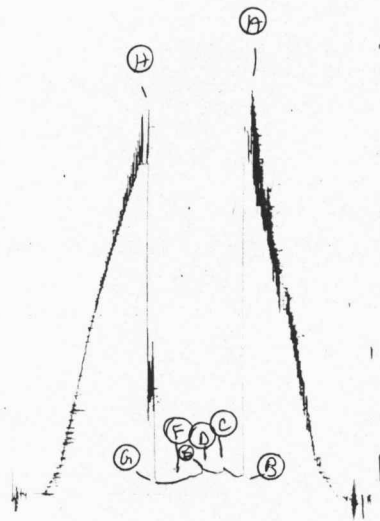
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2224</u>	P.S.I.	<u>8:40 A</u>	<u>9:40 A</u>
B First Initial Flow Pressure	<u>115</u>	P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>135</u>	P.S.I.	<u>1</u> Mins.	<u>15</u> Mins.
D Initial Closed-in Pressure	<u>142</u>	P.S.I.	<u>1</u> Mins.	<u>20</u> Mins.
E Second Initial Flow Pressure	<u>114</u>	P.S.I.		<u>15</u> Mins.
F Second Final Flow Pressure	<u>78</u>	P.S.I.		
G Final Closed-in Pressure	<u>72</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2075</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>115</u>	0		0		0	
P 2 5	<u>115</u>	3	<u>135</u>	5	<u>114</u>	3	<u>74</u>
P 3 10	<u>135</u>	6	<u>135</u>	10	<u>113</u>	6	<u>72</u>
P 4 15	<u>135</u>	9	<u>139</u>	15	<u>92</u>	9	
P 5 20		12	<u>148</u>	20	<u>78</u>	12	
P 6 25		15	<u>142</u>	25		15	<u>72</u>
P 7 30		18		30		18	
P 8 35		21		35		21	
P 9 40		24		40		24	
P10 45		27		45		27	
P11 50		30		50		30	
P12 55		33		55		33	
P13 60		36		60		36	
P14 65		39		65		39	
P15 70		42		70		42	
P16 75		45		75		45	
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	

TKF 12167

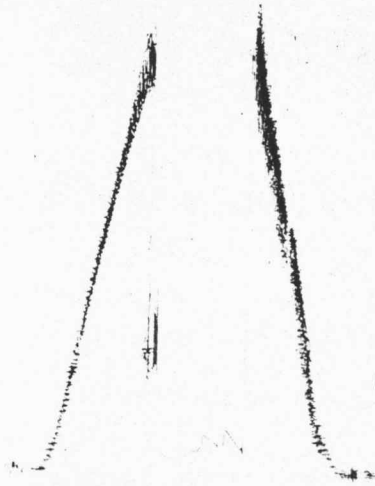
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TKF 12167

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# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.  
SUBSURFACE PRESSURE SURVEY

DATE : 4/15/87  
CUSTOMER : F G HOLL ESTATE  
WELL : 4-13 TEST: 1  
ELEVATION :  
SECTION : 13  
RANGE : 17W COUNTY : EDWARDS  
GAUGE SN# : 3086 RANGE : 4500  
TICKET : 12167  
LEASE : MILLER  
GEOLOGIST : GREENBAUM  
FORMATION : MISSISSIPPI  
TOWNSHIP : 24S  
STATE : KANSAS  
CLOCK : 12

INTERVAL FROM : 4230 TO : 4284 TOTAL DEPTH : 4284  
DEPTH OF SELECTIVE ZONE :  
PACKER DEPTH : SIZE :  
PACKER DEPTH : 4225 SIZE : 6.63  
PACKER DEPTH : 4230 SIZE : 6.63  
PACKER DEPTH : SIZE :

DRILLING CON. : STERLING RIG 4  
MUD TYPE : PREMIX VISCOSITY : 55  
WEIGHT : 9.2 WATER LOSS (CC) : 9.6  
CHLORIDES (PPM) : 10000  
JARS-MAKE : SERIAL NUMBER :  
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 395 FT I.D. inch : 2.25  
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00  
DRILL PIPE LENGTH : 3811 FT I.D. inch : 3.80  
TEST TOOL LENGTH : 24 FT TOOL SIZE : 5.50  
ANCHOR LENGTH : 54 FT ANCHOR SIZE : 5.50  
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75  
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5FH

BLOW COMMENT #1 : WEAK BLOW THROUGHOUT TEST.  
BLOW COMMENT #2 :  
BLOW COMMENT #3 :  
BLOW COMMENT #4 :

RECOVERED : 30 FT OF: DRILLING MUD

Total Barrels Fluid = 0.15  
Total Fluid Prod Rate = 6.07 BFPD  
Indicated Wtr Rate = 0.02 BWPD

REMARK 1 :  
REMARK 2 :  
REMARK 3 :  
REMARK 4 :

SET PACKER(S) : 8:40 AM

TIME STARTED OFF BOTTOM : 9:40 AM

WELL TEMPERATURE : 113

INITIAL HYDROSTATIC PRESSURE

(A) 2224

INITIAL FLOW PERIOD MIN: 15

(B) 115 PSI TO (C) : 135

INITIAL CLOSED IN PERIOD MIN: 15

(D) 162

FINAL FLOW PERIOD MIN: 20

(E) 114 PSI TO (F) : 78

FINAL CLOSED IN PERIOD MIN: 15

(G) 72

FINAL HYDROSTATIC PRESSURE

(H) 2075

WESTERN TESTING CO. INC.  
WICHITA - KANSAS

Pressure Transient Report

COMPANY : F G HOLL ESTATE  
RIG : EDWARDS-KANSAS  
FIELD : MILLER  
WELL : 4-13  
DATE : 4/15/87  
GAUGE NO : 3086

OPERATIONAL COMMENTS

COMPANY : F G HOLL ESTATE  
WELL : 4-13  
GAUGE # : 3086  
DATE : 15/ 4/87

FIELD : MILLER  
JOB # : 12167  
DEPTH : 4284  
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
1	8:40: 0	0.000	115.000	113.00	0.000
2	8:44:59	0.083	115.000	113.00	0.000
3	8:50: 0	0.167	135.000	113.00	20.000
4	8:55: 0	0.250	135.000	113.00	0.000
5	8:58: 0	0.300	135.000	113.00	0.000
6	9: 1: 0	0.350	135.000	113.00	0.000
7	9: 4: 0	0.400	139.000	113.00	4.000
8	9: 7: 0	0.450	148.000	113.00	9.000
9	9:10: 0	0.500	162.000	113.00	14.000
10	9:11: 0	0.517	114.000	113.00	-48.000
11	9:14:59	0.583	114.000	113.00	0.000
12	9:20: 0	0.667	113.000	113.00	-1.000
13	9:25: 0	0.750	92.000	113.00	-21.000
14	9:29:59	0.833	78.000	113.00	-14.000
15	9:32:59	0.883	74.000	113.00	-4.000
16	9:35:59	0.933	72.000	113.00	-2.000
17	9:38:59	0.983	72.000	113.00	0.000
18	9:41:59	1.033	72.000	113.00	0.000
19	9:44:59	1.083	72.000	113.00	0.000

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