



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO 16640

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 262-5861

Elevation 1493 GL Formation CHEROKEESD - MISS Eff. Pay. — Ft.

H210

District GREAT BEND Date 12-5-90

Customer Order No. —

COMPANY NAME HUMMON CORP

ADDRESS 400 ONE MAIN PLACE WICHITA, KS 67202

LEASE AND WELL NO. MCGUIRE #1 COUNTY STEPHEN STATE KS Sec. 18 Twp 32 Rge. 10W

Mail Invoice To SAME Co. Name McGUIRE #1 Address Barber No. Copies Requested 10

Mail Charts To SAME McGUIRE #1 Address No. Copies Requested 10

Formation Test No. 1 Interval Tested From 4314 ft. to 4400 ft. Total Depth 4400 ft.
Packer Depth 4314 ft. Size 6 5/8 in.
Packer Depth 4309 ft. Size 6 3/8 in.

Top Recorder Depth (Inside) 4392 ft. Recorder Number 3659 Cap. 4000
Bottom Recorder Depth (Outside) 4395 ft. Recorder Number 4339 Cap. 4300
Below Straddle Recorder Depth — ft. Recorder Number — Cap. —

Drilling Contractor H-30 #2 Drill Collar Length — I. D. — in.
Mud Type CHEMICAL Viscosity 46 Weight Pipe Length — I. D. — in.
Weight 9.2+ Water Loss 9.6 cc. Drill Pipe Length 4294 I. D. 3.8 in.
Chlorides 3000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
Jars: Make — Serial Number — Anchor Length 8.6 ft. Size 5 1/2 in.
Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: WEAK BUILD TO 1" IN BUCKET
WEAK BUILD TO 1" IN BUCKET

Recovered 20 ft. of MUD

Recovered — ft. of —

Chlorides — P.P.M. Sample Jars used — Remarks: —

Time On Location 400 A.M. Time Pick Up Tool 630 A.M. Time Off Location 200 A.M.
Time Set Packer(s) 835 A.M. Time Started Off Bottom 1135 A.M. Maximum Temperature 120
Initial Hydrostatic Pressure (A) 2194 P.S.I.
Initial Flow Period (B) 30 Minutes (C) 91 P.S.I. to (D) 91 P.S.I.
Initial Closed In Period (D) 60 Minutes (E) 91 P.S.I.
Final Flow Period (E) 30 Minutes (F) 91 P.S.I. to (G) 91 P.S.I.
Final Closed In Period (G) 60 Minutes (H) 91 P.S.I.
Final Hydrostatic Pressure (H) 2153 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: [Signature] Signature of Customer or his authorized representative

Western Representative: Norman Hickel Thank You

0830

FIELD INVOICE

Open Hole Test \$ 550
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$

WESTERN TESTING CO., INC.

Pressure Data

Date 12-5-90 Recorder No. 3659 Capacity 4000 Location _____ Pt. _____
 Clock No. _____ Elevation 1493 GL Well Temperature 120 °P

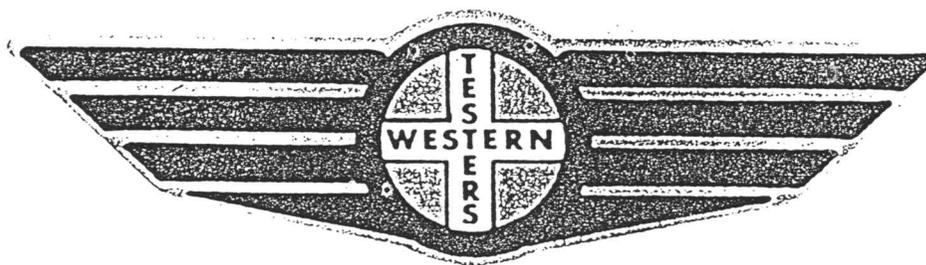
Test Ticket No. 16640

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	2213 <u>2184</u>		<u>8:35 A.M.</u>	
B First Initial Flow Pressure	<u>93</u>	First Flow Pressure	<u>30</u> Mins	<u>30</u> Mins
C First Final Flow Pressure	<u>93</u>	Initial Closed-in Pressure	<u>60</u> Mins	<u>60</u> Mins
D Initial Closed-in Pressure	<u>93</u>	Second Flow Pressure	<u>30</u> Mins	<u>30</u> Mins
E Second Initial Flow Pressure	<u>93</u>	Final Closed-in Pressure	<u>60</u> Mins	<u>60</u> Mins
F Second Final Flow Pressure	<u>93</u>			
G Final Closed-in Pressure	<u>93</u>			
H Final Hydrostatic Mud	2243 <u>2164</u>			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press. <u>93</u>	Point Mlnutes Press. <u>93</u>	Point Mlnutes Press. <u>93</u>	Point Mlnutes Press. <u>93</u>
P 1	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
P 2	<u>5</u>	<u>3</u>	<u>5</u>	<u>3</u>
P 3	<u>10</u>	<u>6</u>	<u>10</u>	<u>6</u>
P 4	<u>15</u>	<u>9</u>	<u>15</u>	<u>9</u>
P 5	<u>20</u>	<u>12</u>	<u>20</u>	<u>12</u>
P 6	<u>25</u>	<u>15</u>	<u>25</u>	<u>15</u>
P 7	<u>30</u>	<u>18</u>	<u>30</u>	<u>18</u>
P 8	<u>35</u>	<u>21</u>	<u>35</u>	<u>21</u>
P 9	<u>40</u>	<u>24</u>	<u>40</u>	<u>24</u>
P 10	<u>45</u>	<u>27</u>	<u>45</u>	<u>27</u>
P 11	<u>50</u>	<u>30</u>	<u>50</u>	<u>30</u>
P 12	<u>55</u>	<u>33</u>	<u>55</u>	<u>33</u>
P 13	<u>60</u>	<u>36</u>	<u>60</u>	<u>36</u>
P 14	<u>65</u>	<u>39</u>	<u>65</u>	<u>39</u>
P 15	<u>70</u>	<u>42</u>	<u>70</u>	<u>42</u>
P 16	<u>75</u>	<u>45</u>	<u>75</u>	<u>45</u>
P 17	<u>80</u>	<u>48</u>	<u>80</u>	<u>48</u>
P 18	<u>85</u>	<u>51</u>	<u>85</u>	<u>51</u>
P 19	<u>90</u>	<u>54</u>	<u>90</u>	<u>54</u>
P 20	<u>95</u>	<u>57</u>	<u>95</u>	<u>57</u>
	<u>100</u>	<u>60</u>	<u>100</u>	<u>60</u>

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 12/5/90 TICKET : 16640
CUSTOMER : HUMMON CORPORATION LEASE : MCGUIRE
WELL : 1 TEST: 1 GEOLOGIST : HUMMON
ELEVATION : 1493 GL FORMATION : CHEROKEE SD-MIS

SECTION : 18 TOWNSHIP : 32S
RANGE : 10W COUNTY : BARBER STATE : KANSAS
GAUGE SN# : 3659 RANGE : 4000 CLOCK : 12

INTERVAL FROM : 4314 TO : 4400 TOTAL DEPTH : 4400
DEPTH OF SELECTIVE ZONE :
PACKER DEPTH : 4314 SIZE : 6.63
PACKER DEPTH : 4309 SIZE : 6.63
PACKER DEPTH : SIZE :
PACKER DEPTH : SIZE :

DRILLING CON. : H-30 RIG 2
MUD TYPE : CHEMICAL VISCOSITY : 46
WEIGHT : 9.2+ WATER LOSS (CC) : 9.6
CHLORIDES (PPM) : 3000
JARS-MAKE : SERIAL NUMBER :
DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
WEIGHT PIPE LENGTH : 0 FT I.D. inch : 0.00
DRILL PIPE LENGTH : 4294 FT I.D. inch : 3.80
TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
ANCHOR LENGTH : 86 FT ANCHOR SIZE : 5.50
SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5XH

BLOW COMMENT #1 : WEAK BLOW BUILDING TO 1 INCH IN
BLOW COMMENT #2 : BUCKET ON BOTH FLOW PERIODS.
BLOW COMMENT #3 :
BLOW COMMENT #4 :

RECOVERED : 20 FT OF: MUD.

Total Barrels Fluid = 0.28
Total Fluid Prod Rate = 6.73 BFPD
Indicated Wtr Rate = 0.67 BWPD

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

SET PACKER(S) : 8:35 A.M.

TIME STARTED OFF BOTTOM : 11:35 A.M.

WELL TEMPERATURE : 120

INITIAL HYDROSTATIC PRESSURE

(A) 2184

INITIAL FLOW PERIOD MIN: 30

(B) 93 PSI TO (C) : 93

INITIAL CLOSED IN PERIOD MIN: 60

(D) 93

FINAL FLOW PERIOD MIN: 30

(E) 93 PSI TO (F) : 93

FINAL CLOSED IN PERIOD MIN: 60

(G) 93

FINAL HYDROSTATIC PRESSURE

(H) 2164

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : HUMMON CORPORATION
RIG : BARBER-KANSAS
FIELD : MCGUIRE
WELL : 1
DATE : 12/5/90
GAUGE NO : 3659

OPERATIONAL COMMENTS

COMPANY : HUMMON CORPORATION
 WELL : 1
 GAUGE # : 3659
 DATE : 5/12/90

FIELD : MCGUIRE
 JOB # : 16640
 DEPTH : 4400
 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	8:35: 0	0.000	93.000	120.00	0.000
3	8:39:59	0.083	93.000	120.00	0.000
4	8:45: 0	0.167	93.000	120.00	0.000
5	8:50: 0	0.250	93.000	120.00	0.000
6	8:54:59	0.333	93.000	120.00	0.000
7	9: 0: 0	0.417	93.000	120.00	0.000
8	9: 5: 0	0.500	93.000	120.00	0.000
INITIAL SHUT-IN PERIOD					
9	9: 8: 0	0.550	93.000	120.00	0.000
10	9:11: 0	0.600	93.000	120.00	0.000
11	9:14: 0	0.650	93.000	120.00	0.000
12	9:17: 0	0.700	93.000	120.00	0.000
13	9:20: 0	0.750	93.000	120.00	0.000
14	9:23: 0	0.800	93.000	120.00	0.000
15	9:26: 0	0.850	93.000	120.00	0.000
16	9:29: 0	0.900	93.000	120.00	0.000
17	9:32: 0	0.950	93.000	120.00	0.000
18	9:35: 0	1.000	93.000	120.00	0.000
19	9:38: 0	1.050	93.000	120.00	0.000
20	9:41: 0	1.100	93.000	120.00	0.000
21	9:44: 0	1.150	93.000	120.00	0.000
22	9:47: 0	1.200	93.000	120.00	0.000
23	9:50: 0	1.250	93.000	120.00	0.000
24	9:53: 0	1.300	93.000	120.00	0.000
25	9:56: 0	1.350	93.000	120.00	0.000
26	9:59: 0	1.400	93.000	120.00	0.000
27	10: 2: 0	1.450	93.000	120.00	0.000
28	10: 5: 0	1.500	93.000	120.00	0.000
FINAL FLOW PERIOD					
29	10: 6: 0	1.517	93.000	120.00	0.000
30	10: 9:59	1.583	93.000	120.00	0.000
31	10:15: 0	1.667	93.000	120.00	0.000
32	10:20: 0	1.750	93.000	120.00	0.000
33	10:24:59	1.833	93.000	120.00	0.000
34	10:30: 0	1.917	93.000	120.00	0.000
35	10:35: 0	2.000	93.000	120.00	0.000
FINAL SHUT-IN PERIOD					
36	10:38: 0	2.050	93.000	120.00	0.000
37	10:41: 0	2.100	93.000	120.00	0.000
38	10:44: 0	2.150	93.000	120.00	0.000
39	10:47: 0	2.200	93.000	120.00	0.000
40	10:50: 0	2.250	93.000	120.00	0.000
41	10:53: 0	2.300	93.000	120.00	0.000
42	10:56: 0	2.350	93.000	120.00	0.000
43	10:59: 0	2.400	93.000	120.00	0.000
44	11: 2: 0	2.450	93.000	120.00	0.000
45	11: 5: 0	2.500	93.000	120.00	0.000
46	11: 8: 0	2.550	93.000	120.00	0.000
47	11:11: 0	2.600	93.000	120.00	0.000
48	11:14: 0	2.650	93.000	120.00	0.000

COMPANY : HUMMON CORPORATION
WELL : 1
GAUGE # : 3659
DATE : 5/12/90

FIELD : MCGUIRE
JOB # : 16640
DEPTH : 4400
TEST :

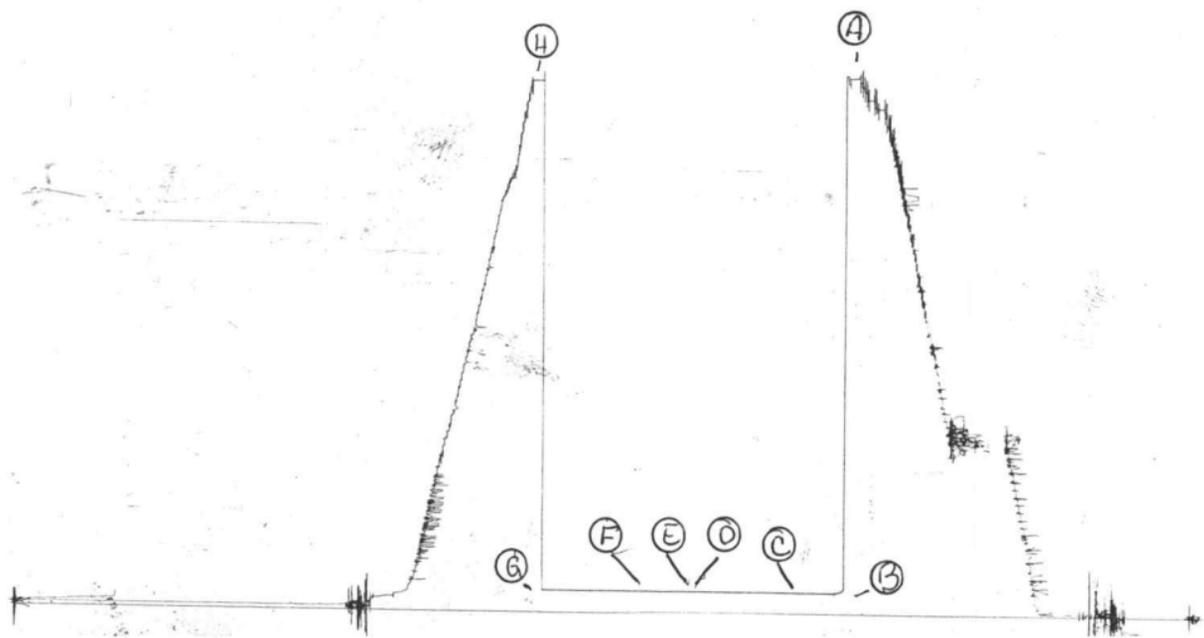
DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
49	11:17: 0	2.700	93.000	120.00	0.000
50	11:20: 0	2.750	93.000	120.00	0.000
51	11:23: 0	2.800	93.000	120.00	0.000
52	11:26: 0	2.850	93.000	120.00	0.000
53	11:29: 0	2.900	93.000	120.00	0.000
54	11:32: 0	2.950	93.000	120.00	0.000
55	11:35: 0	3.000	93.000	120.00	0.000

WESTERN TESTING CO. INC.

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