



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

Nº

5589

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation

Formation

Miss.

Eff. Pay Ft.

District

PrstH

Date

6-30-84

Customer Order No.

COMPANY NAME

A.P.C.

ADDRESS

Suite 600 One Main Place Wichita KS

LEASE AND WELL NO.

Haas Estate #6

COUNTY

Barber

STATE

KS

Sec.

3

Twp.

31s

Rge.

12w

Mail Invoice To

Same #6 Haas Estate

No. Copies Requested

Reg

Mail Charts To

Same

Address

No. Copies Requested

Reg

Formation Test No.

1

Interval Tested From

4442

ft. to

4470

ft.

Total Depth

4510

ft.

Packer Depth

4437

ft.

Size

6 3/4 in.

Packer Depth

4470

ft.

Size

6 3/4 in.

Packer Depth

4442

ft.

Size

6 3/4 in.

Packer Depth

ft.

Size

in.

Depth of Selective Zone Set

Top Recorder Depth (Inside)

4460

ft.

Recorder Number

13402

Cap.

4025

Bottom Recorder Depth (Outside)

4463

ft.

Recorder Number

11019

Cap.

4500

Below Saddle Recorder Depth

4507

ft.

Recorder Number

1559

Cap.

4200

Drilling Contractor

Heartland #1

Drill Collar Length

450

I. D.

2.2

in.

Mud Type

Chem.

Viscosity

60

Weight Pipe Length

I. D.

in.

Weight

9.5

Water Loss

16.2

cc.

Drill Pipe Length

4003

I. D.

3.8

in.

Chlorides

13,000

P.P.M.

Test Tool Length

29

ft.

Tool Size

5 1/2 OD

Jars: Make

WTC

Serial Number

4016

Anchor Length

28

ft.

Size

5 1/2 OD

Did Well Flow?

NO

Reversed Out

NO

Surface Choke Size

3/4

in.

Bottom Choke Size

3/4

Main Hole Size

7 7/8

in.

Tool Joint Size

4 1/2 X 1 1/2

Blow:

Fair Building to Strong I.F. Strong thru F.F.

Recovered 90 ft. of Oil Cut Mud 65% Mud 10% Oil 25% Gas

Recovered ft. of

Recovered 300 ft. of Gas In P.P.

Recovered ft. of

Recovered ft. of

Recovered ft. of

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

RECEIVED
JUL 3 1984

Time On Location 9:00 A.M. Time Pick Up Tool 9:30 A.M. Time Off Location 7:00 A.M.

Time Set Packer(s) 11:55 A.M. Time Started Off Bottom 4:25 A.M. Maximum Temperature 120°

Initial Hydrostatic Pressure (A) 2127 P.S.I.

Initial Flow Period Minutes 30 (B) 68 P.S.I. to (C) 68 P.S.I.

Initial Closed In Period Minutes 60 (D) 265 P.S.I.

Final Flow Period Minutes 60 (E) 68 P.S.I. to (F) 68 P.S.I.

Final Closed In Period Minutes 120 (G) 334 P.S.I.

Final Hydrostatic Pressure (H) 2066 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

John D. Howard Jr.

Signature of Customer or his authorized representative

Western Representative

W. P. Potoush

Thank you

FIELD INVOICE

Open Hole Test \$ 595
Misrun \$
Straddle Test \$ 300
Jars \$ 300
Selective Zone \$
Safety Joint \$ 65
Standby \$
Evaluation \$
Extra Packer \$ 225
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$

WESTERN TESTING CO., INC.

Pressure Data

Date 6-30Test Ticket No. 5589Recorder No. 13402

Capacity

Location

Clock No. ElevationWell Temperature °F

Point	Pressure	
A Initial Hydrostatic Mud	<u>2117</u>	P.S.I.
B First Initial Flow Pressure	<u>56</u>	P.S.I.
C First Final Flow Pressure	<u>57</u>	P.S.I.
D Initial Closed-in Pressure	<u>265</u>	P.S.I.
E Second Initial Flow Pressure	<u>71</u>	P.S.I.
F Second Final Flow Pressure	<u>74</u>	P.S.I.
G Final Closed-in Pressure	<u>321</u>	P.S.I.
H Final Hydrostatic Mud	<u>2077</u>	P.S.I.

	Time Given	Time Computed
Open Tool		M
First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
Second Flow Pressure	<u>60</u> Mins.	
Final Closed-in Pressure	<u>120</u> Mins.	

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 7 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 21 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 13 Inc.
of 5 mins. and a
final inc. of 0 Min.

Final Shut-In
Breakdown: 40 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	<u>56</u>
P 2 5	<u>5</u>
P 3 10	<u>56</u>
P 4 15	<u>57</u>
P 5 20	<u>57</u>
P 6 25	<u>57</u>
P 7 30	<u>57</u>
P 8 35	
P 9 40	
P 10 45	
P 11 50	
P 12 55	
P 13 60	
P 14	
P 15	
P 16	
P 17	
P 18	
P 19	
P 20	

Point Minutes	Press.
0	<u>57</u>
3	<u>65</u>
6	<u>74</u>
9	<u>83</u>
12	<u>92</u>
15	<u>102</u>
18	<u>114</u>
21	<u>126</u>
24	<u>138</u>
27	<u>150</u>
30	<u>164</u>
33	<u>177</u>
36	<u>189</u>
39	<u>201</u>
42	<u>211</u>
45	<u>221</u>
48	<u>231</u>
51	<u>240</u>
54	<u>249</u>
57	<u>257</u>
60	<u>265</u>

Point Minutes	Press.
0	<u>71</u>
5	<u>71</u>
10	<u>71</u>
15	<u>71</u>
20	<u>71</u>
25	<u>72</u>
30	<u>72</u>
35	<u>73</u>
40	<u>73</u>
45	<u>73</u>
50	<u>74</u>
55	<u>74</u>
60	<u>74</u>
65	
70	
75	
80	
85	
90	

Point Minutes	Press.
0	<u>74</u>
3	<u>78</u>
6	<u>84</u>
9	<u>89</u>
12	<u>94</u>
15	<u>100</u>
18	<u>106</u>
21	<u>112</u>
24	<u>118</u>
27	<u>122</u>
30	<u>126</u>
33	<u>129</u>
36	<u>135</u>
39	<u>141</u>
42	<u>147</u>
45	<u>154</u>
48	<u>160</u>
51	<u>167</u>
54	<u>174</u>
57	<u>181</u>
60	<u>188</u>

WESTERN TESTING CO., INC.

Pressure Data

Date: _____

Test Ticket No. 5589

Recorder No. _____ Capacity _____ Location _____ Ft

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud _____	P.S.I.	Open Tool	_____	M _____
B First Initial Flow Pressure _____	P.S.I.	First Flow Pressure	_____	Mins. _____ Mins.
C First Final Flow Pressure _____	P.S.I.	Initial Closed-in Pressure	_____	Mins. _____ Mins.
D Initial Closed-in Pressure _____	P.S.I.	Second Flow Pressure	_____	Mins. _____ Mins.
E Second Initial Flow Pressure _____	P.S.I.	Final Closed-in Pressure	_____	Mins. _____ Mins.
F Second Final Flow Pressure _____	P.S.I.			
G Final Closed-in Pressure _____	P.S.I.			
H Final Hydrostatic Mud _____	P.S.I.			

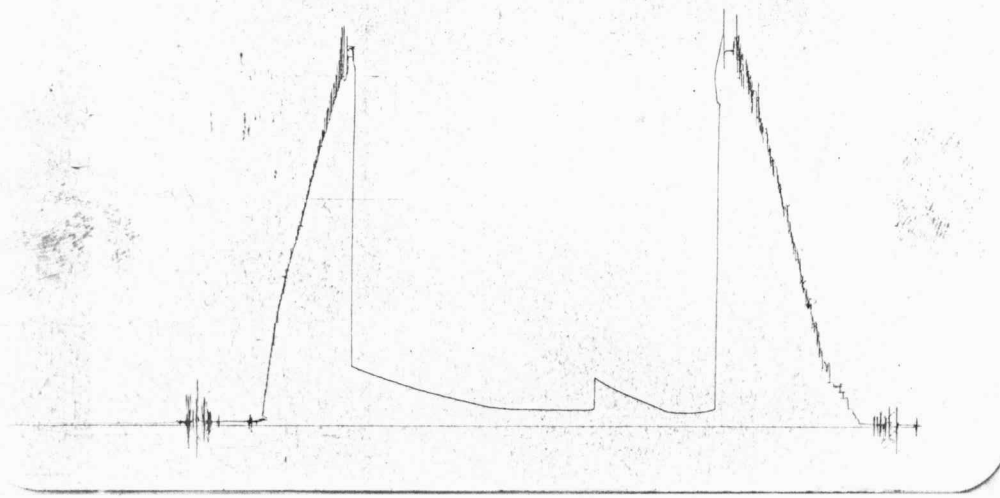
PRESSURE BREAKDOWN

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 _____	_____	63 _____	_____	_____	_____	63 _____	195
P 2 _____	_____	66 _____	_____	_____	_____	66 _____	202
P 3 _____	_____	69 _____	_____	_____	_____	69 _____	209
P 4 _____	_____	72 _____	_____	_____	_____	72 _____	216
P 5 _____	_____	75 _____	_____	_____	_____	75 _____	223
P 6 _____	_____	78 _____	_____	_____	_____	78 _____	230
P 7 _____	_____	81 _____	_____	_____	_____	81 _____	237
P 8 _____	_____	84 _____	_____	_____	_____	84 _____	244
P 9 _____	_____	87 _____	_____	_____	_____	87 _____	251
P10 _____	_____	90 _____	_____	_____	_____	90 _____	258
P11 _____	_____	93 _____	_____	_____	_____	93 _____	265
P12 _____	_____	96 _____	_____	_____	_____	96 _____	272
P13 _____	_____	99 _____	_____	_____	_____	99 _____	279
P14 _____	_____	102 _____	_____	_____	_____	102 _____	286
P15 _____	_____	105 _____	_____	_____	_____	105 _____	293
P16 _____	_____	108 _____	_____	_____	_____	108 _____	300
P17 _____	_____	111 _____	_____	_____	_____	111 _____	307
P18 _____	_____	114 _____	_____	_____	_____	114 _____	314
P19 _____	_____	117 _____	_____	_____	_____	117 _____	321
P20 _____	_____	120 _____	_____	_____	_____	120 _____	_____

11017
DST #1

+CK# 5589

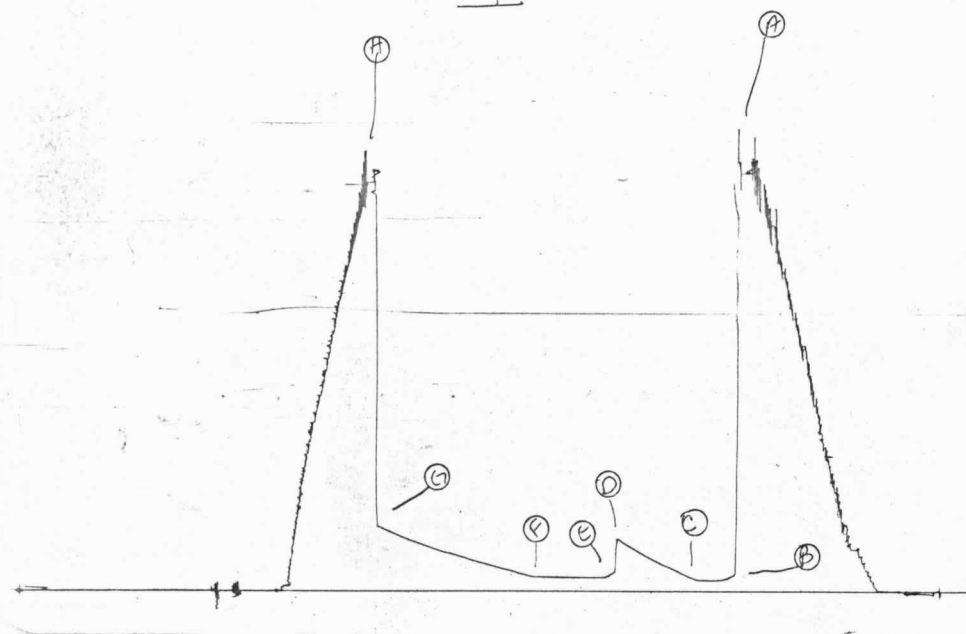
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13402
DST #1

+CK# 5589

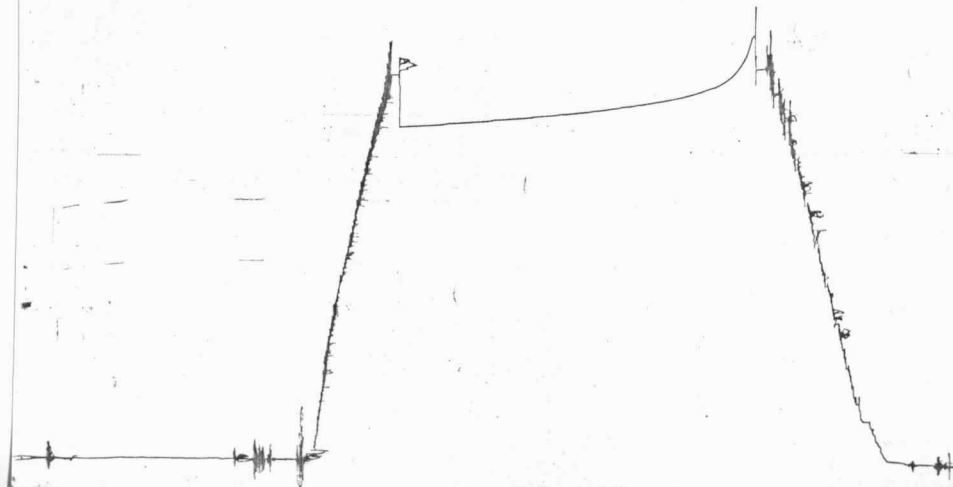
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1559
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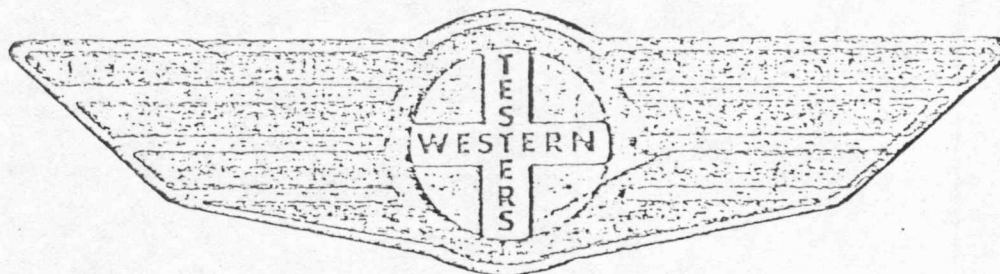
Below Saddle



FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING COMPANY INC.
SUBSURFACE PRESSURE SURVEY

DATE: 6/30/84 TICKET #5589
CUSTOMER: A.P.C. INC. LEASE: HAAS ESTATE
WELL: 6 TEST: 1 GEOLOGIST: JOHN HOWARD
ELEVATION (KB): 0 FORMATION: MISSISSIPPI
SECTION: 3 TOWNSHIP: 31S
RANGE: 12W COUNTY: BARBER STATE: KANSAS
GAUGE SN #13402 RANGE: 4025 CLOCK: 12

INTERVAL TEST FROM: 4442 FT TO: 4470 FT TOTAL DEPTH: 4510 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4437 FT SIZE: 6 3/4 IN PACKER DEPTH: 4442 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: 4470 FT SIZE: 6 3/4 IN

DRILLING CONTRACTOR: HEARTLAND
MUD TYPE: CHEMICAL VISCOSITY: 60
WEIGHT: 9.5 WATER LOSS (CC): 16.2
CHLORIDES (P.P.M.): 13000
JARS - MAKE: W.T.C. SERIAL NUMBER: 406
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 450 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 4003 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 29 FT TOOL SIZE: 5 1/2 O.D. IN
ANCHOR LENGTH: 28 FT SIZE: 5 1/2 O.D. IN
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 X.H. IN

BLOW: INITIAL FLOW PERIOD; FAIR BUILDING TO STRONG.
FINAL FLOW PERIOD; STRONG THROUGHOUT.

RECOVERED: 300 FT OF: GAS ABOVE FLUID
RECOVERED: 90 FT OF: OIL CUT MUD; 65% MUD; 10% OIL; 25% GAS
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 11:55 A.M. TIME STARTED OFF BOTTOM: 4:25 P.M.
WELL TEMPERATURE: 120 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2117 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 56 PSI TO (C) 57 PSI
INITIAL CLOSED IN PERIOD MIN: 60 (D) 265 PSI
FINAL FLOW PERIOD MIN: 60 (E) 71 PSI TO (F) 74 PSI
FINAL CLOSED IN PERIOD MIN: 117 (G) 321 PSI
FINAL HYDROSTATIC PRESSURE (H) 2077 PSI

WESTERN TESTING COMPANY INC.
PRESSURE DATA

DATE: 6/30/84
CUSTOMER: A.P.C. INC.
WELL: 6
ELEVATION (KB): 0
SECTION: 3
RANGE: 12W
GAUGE SN #13402

TEST: 1

FORMATION: MISSISSIPPI

TOWNSHIP: 31S

COUNTY: BARBER

STATE: KANSAS

RANGE: 4025

CLOCK: 12

(A)	INITIAL HYDROSTATIC PRESSURE:	2117	PSI
(B)	FIRST INITIAL FLOW PRESSURE:	56	PSI
(C)	FIRST FINAL FLOW PRESSURE:	57	PSI
(D)	INITIAL CLOSED-IN PRESSURE:	265	PSI
(E)	SECOND INITIAL FLOW PRESSURE:	71	PSI
(F)	SECOND FINAL FLOW PRESSURE:	74	PSI
(G)	FINAL CLOSED-IN PRESSURE:	321	PSI
(H)	FINAL HYDROSTATIC PRESSURE:	2077	PSI
WELL TEMPERATURE:		120	'F
OPEN TOOL: 11:55 A.M.			

	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	30 MIN	30 MIN
INITIAL CLOSED-IN PRESSURE:	60 MIN	60 MIN
SECOND FLOW PRESSURE:	60 MIN	60 MIN
FINAL CLOSED-IN PRESSURE:	120 MIN	117 MIN

PRESSURE BREAKDOWN

[illegible]

PRESSURE BREAKDOWN - CONT. TICKET #5589

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
31							90	258
32							93	265
33							96	272
34							99	279
35							102	286
36							105	293
37							108	300
38							111	307
39							114	314
40							117	321
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