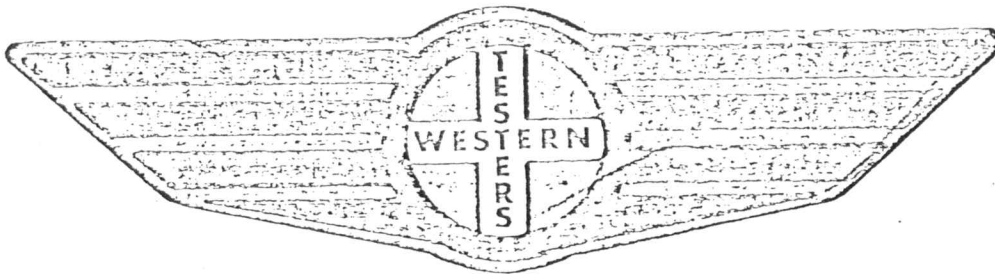


FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____
Lease and Well No. _____
Sec. _____
Twp. _____
Rge. _____
Test No. _____
Date _____

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 4/11/84
CUSTOMER: F.G. HOLL
WELL: 1-18
ELEVATION (KB): 0
SECTION: 18
RANGE: 8W
GAUGE SN #13552

TEST: 1
FORMATION: STALNAKER
TOWNSHIP: 32S
COUNTY: HARPER
RANGE: 4050

TICKET #4362
LEASE: SMALLEY
GEOLOGIST: BIDLEMAN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 3699 FT TO: 3723 FT TOTAL DEPTH: 3723 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3694 FT SIZE: 6 5/8 IN PACKER DEPTH: 3699 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: STERLING DRLG
MUD TYPE: PREMIX VISCOSITY: 32
WEIGHT: 9.7 WATER LOSS (CC):
CHLORIDES (P.P.M.): 45000
JARS - MAKE: WTC SERIAL NUMBER: 405
DID WELL FLOW? NO REVERSED OUT? YES
DRILL COLLAR LENGTH: 396 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3276 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 27 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 24 FT SIZE: 5 1/2 OD 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 FH IN

BLOW: STRONG BLOW THROUGHOUT TEST.

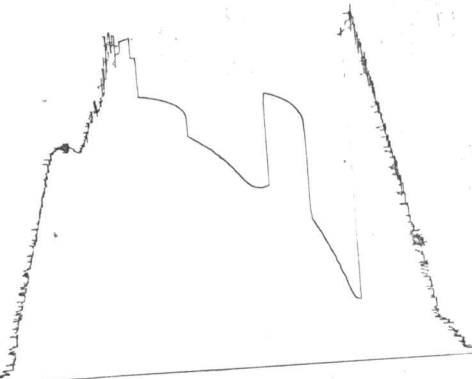
RECOVERED: 2635 FT OF: SALT WATER. CHLORIDES 125000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: READ BOTTOM CHART.

TIME SET PACKER(S): 4:20 AM TIME STARTED OFF BOTTOM: 6:50 AM
WELL TEMPERATURE: 116 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1822 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 338 PSI TO (C) 866 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 1535 PSI
FINAL FLOW PERIOD MIN: 55 (E) 967 PSI TO (F) 1341 PSI
FINAL CLOSED IN PERIOD MIN: 33 (G) 1544 PSI
FINAL HYDROSTATIC PRESSURE (H) 1800 PSI

TKT # 4362

I



5

TKT # 4362





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 4362

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

Elevation _____ Formation Stalnaker Eff. Pay _____ Ft.

District Pratt Date 4/11/84 Customer Order No. _____

COMPANY NAME F.G. Holl

ADDRESS 6427 East Kellogg Wichita, Ks 67207

LEASE AND WELL NO. Smalley #1-18 COUNTY Harper STATE Ks Sec. 18 Twp. 32S Rge. 8W

Mail Invoice To Same #1-18 Smalley No. Copies Requested 5

Mail Charts To Same Address _____ No. Copies Requested 5

Formation Test No. _____ Interval Tested From 3699 ft. to 3723 ft. Total Depth 3723 ft.

Packer Depth 3694 ft. Size 6 7/8 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 3699 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3712 ft. Recorder Number 13547 Cap. 4225

Bottom Recorder Depth (Outside) 3715 ft. Recorder Number 13552 Cap. 4050

Below Saddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor Stening Rig #2 Drill Collar Length 396 I. D. 2 1/4 in.

Mud Type Premix Viscosity 32 Weight Pipe Length _____ I. D. _____ in.

Weight 9.7 Water Loss N.C. Drill Pipe Length 3276 I. D. 3.8 in.

Chlorides 45,000 P.P.M. Test Tool Length 27 ft. Tool Size 5 1/2 00 in.

Jars: Make WTC Serial Number 405 Anchor Length 24 ft. Size 5 1/2 00 in.

Did Well Flow? No Reversed Out Yes 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 FH in.

Blow: Strong blow throughout flow periods

Recovered 2635 ft. of Salt Water

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Chlorides 125,000 P.P.M. Sample Jars used _____ Remarks: _____

* Read bottom chart *

Time On Location 12:30 A.M. Time Pick Up Tool 2:30 A.M. Time Off Location 10:00 A.M.

Time Set Packer(s) 4:20 A.M. Time Started Off Bottom 6:50 A.M. Maximum Temperature 116°

Initial Hydrostatic Pressure _____ (A) 1822 P.S.I.

Initial Flow Period _____ Minutes 30 (B) 335 P.S.I. to (C) 862 P.S.I.

Initial Closed In Period _____ Minutes 30 (D) 1540 P.S.I.

Final Flow Period _____ Minutes 60 (E) 963 P.S.I. to (F) 1348 P.S.I.

Final Closed In Period _____ Minutes 30 (G) 1540 P.S.I.

Final Hydrostatic Pressure _____ (H) 1802 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.

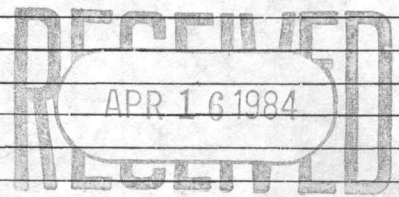
All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By W. Bruce Billman
Signature of Customer or his authorized representative

Western Representative Jim Wonda Thank You
2376

FIELD INVOICE

Open Hole Test \$ 550.00
Misrun \$ _____
Straddle Test \$ _____
Jars \$ 800.00
Selective Zone \$ _____
Safety Joint \$ _____
Standby \$ _____
Evaluation \$ _____
Extra Packer \$ _____
Circ. Sub. \$ 135.00
Mileage \$ _____
Fluid Sampler \$ _____
Extra Charts \$ _____
Insurance \$ 150.00
Telecopier \$ _____
TOTAL \$ 935.00



WESTERN TESTING CO., INC.

Pressure Data

Date: 4-11-84 Test Ticket No. 4362
 Recorder No. 13552 Capacity 4050 Location 3715 Ft.
 Clock No. _____ Elevation _____ Well Temperature 116 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1822</u>	P.S.I.	<u>4:20 A</u>	<u>M</u>
B First Initial Flow Pressure	<u>338</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>866</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1535</u>	P.S.I.	<u>60</u> Mins.	<u>55</u> Mins.
E Second Initial Flow Pressure	<u>967</u>	P.S.I.	<u>30</u> Mins.	<u>33</u> Mins.
F Second Final Flow Pressure	<u>1341</u>	P.S.I.		
G Final Closed-in Pressure	<u>1544</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1800</u>	P.S.I.		

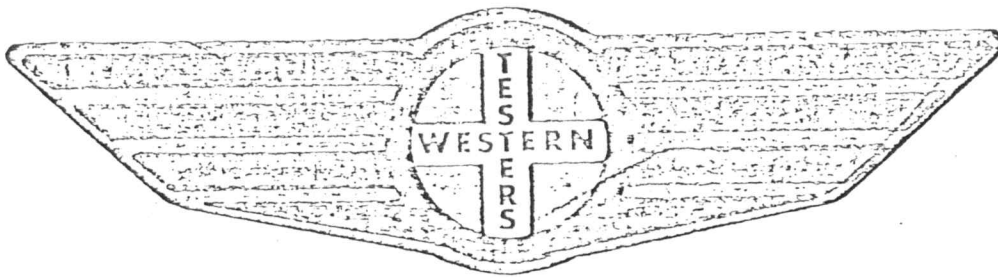
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>11</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>12</u> 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	<u>0</u>	<u>0</u>	<u>866</u>	<u>0</u>	<u>967</u>	<u>0</u>	<u>1341</u>
P 2	<u>5</u>	<u>3</u>	<u>1378</u>	<u>5</u>	<u>978</u>	<u>3</u>	<u>1479</u>
P 3	<u>10</u>	<u>6</u>	<u>1449</u>	<u>10</u>	<u>1029</u>	<u>6</u>	<u>1505</u>
P 4	<u>15</u>	<u>9</u>	<u>1475</u>	<u>15</u>	<u>1081</u>	<u>9</u>	<u>1516</u>
P 5	<u>20</u>	<u>12</u>	<u>1492</u>	<u>20</u>	<u>1120</u>	<u>12</u>	<u>1523</u>
P 6	<u>25</u>	<u>15</u>	<u>1504</u>	<u>25</u>	<u>1159</u>	<u>15</u>	<u>1528</u>
P 7	<u>30</u>	<u>18</u>	<u>1512</u>	<u>30</u>	<u>1196</u>	<u>18</u>	<u>1532</u>
P 8	<u>35</u>	<u>21</u>	<u>1520</u>	<u>35</u>	<u>1229</u>	<u>21</u>	<u>1535</u>
P 9	<u>40</u>	<u>24</u>	<u>1525</u>	<u>40</u>	<u>1262</u>	<u>24</u>	<u>1538</u>
P 10	<u>45</u>	<u>27</u>	<u>1530</u>	<u>45</u>	<u>1288</u>	<u>27</u>	<u>1540</u>
P 11	<u>50</u>	<u>30</u>	<u>1535</u>	<u>50</u>	<u>1315</u>	<u>30</u>	<u>1542</u>
P 12	<u>55</u>	<u>33</u>		<u>55</u>	<u>1341</u>	<u>33</u>	<u>1544</u>
P 13	<u>60</u>	<u>36</u>		<u>60</u>		<u>36</u>	
P 14		<u>39</u>		<u>65</u>		<u>39</u>	
P 15		<u>42</u>		<u>70</u>		<u>42</u>	
P 16		<u>45</u>		<u>75</u>		<u>45</u>	
P 17		<u>48</u>		<u>80</u>		<u>48</u>	
P 18		<u>51</u>		<u>85</u>		<u>51</u>	
P 19		<u>54</u>		<u>90</u>		<u>54</u>	
P 20		<u>57</u>				<u>57</u>	
		<u>60</u>				<u>60</u>	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____ F.G. HULL _____ Lease and Well No. _____ W.T. TO DRAWING _____ Sec. _____ Twp. _____ Rge. _____ Test No. _____ DATE _____

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 4/13/84
CUSTOMER: F.G. HOLL
WELL: 1-18
ELEVATION (KB): 0
SECTION: 18
RANGE: 8W
GAUGE SN #13552

TEST: 2

FORMATION: HERTHA
TOWNSHIP: 32S

COUNTY: HARPER
RANGE: 4050

TICKET #4363
LEASE: SMALLEY
GEOLOGIST: BIDLEMAN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4075 FT TO: 4116 FT TOTAL DEPTH: 4116 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4070 FT SIZE: 6 5/8 IN PACKER DEPTH: 4075 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: STERLING DRLG
MUD TYPE: CHEM-DRIS VISCOSITY: 45
WEIGHT: 9.1 WATER LOSS (CC): 11.2
CHLORIDES (P.P.M.): 12000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? YES REVERSED OUT? NO
DRILL COLLAR LENGTH: 396 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3658 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 41 FT SIZE: 5 1/2 OD 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 FH IN

BLOW: STRONG BLOW THROUGHOUT TEST.
GAS TO SURFACE IMMEDIATELY ON FINAL FLOW.
SEE ATTACHED SHEET FOR GAS MEASUREMENTS.

RECOVERED: 125 FT OF: OIL & GAS CUT MUD. 20% OIL; 5% WATER.
RECOVERED: 120 FT OF: OIL & GAS CUT MUD. 20% OIL; 10% WATER.
RECOVERED: 120 FT OF: GAS CUT MUDDY OIL. 60% OIL; 15% WATER.
RECOVERED: 60 FT OF: FOGGY GASSY OIL. 90% OIL; 10% WATER.
RECOVERED: FT OF: CHLORIDES 69000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: READ OUTSIDE CHART.

TIME SET PACKER(S): 4:45 AM
WELL TEMPERATURE: 121 °F

TIME STARTED OFF BOTTOM: 7:15 AM

INITIAL HYDROSTATIC PRESSURE:		(A) 1931	PSI	
INITIAL FLOW PERIOD	MIN: 30	(B) 104	PSI TO (C) 134	PSI
INITIAL CLOSED IN PERIOD	MIN: 33	(D) 787	PSI	
FINAL FLOW PERIOD	MIN: 60	(E) 155	PSI TO (F) 183	PSI
FINAL CLOSED IN PERIOD	MIN: 33	(G) 753	PSI	
FINAL HYDROSTATIC PRESSURE		(H) 1895	PSI	

WESTERN TESTING CO. INC.
GAS FLOW REPORT

DATE: 4/13/84
CUSTOMER: F.G. HOLL
WELL: 1-18
ELEVATION (KB): 0
SECTION: 18
RANGE: 8W
GAUGE SN #13552

TEST: 2

FORMATION: HERTHA
TOWNSHIP: 32S

COUNTY: HARPER
RANGE: 4050

TICKET #4363
LEASE: SMALLEY
GEOLOGIST: BIDLEMAN
STATE: KANSAS
CLOCK: 12

TIME GAUGE (MIN)	TESTER TYPE	ORIFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
---------------------	-------------	-----------------	-------------------	------------------

PRE FLOW

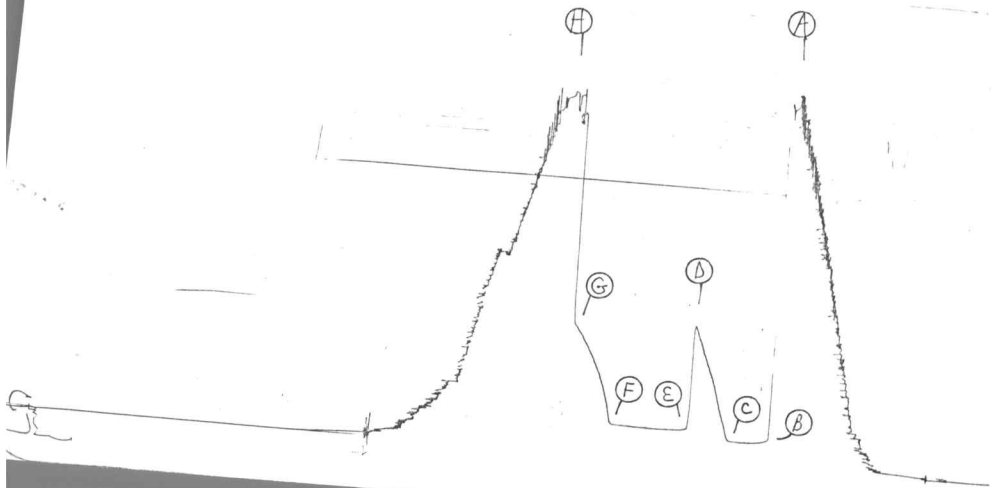
SECOND FLOW

5	MERLA	1/4	19" OFWTR	7320 CFPD
10			20" OFWTR	7510
20			24" OFWTR	8220
30			26" OFWTR	8560
40			28" OFWTR	8890
50			28" OFWTR	8890
60			28" OFWTR	8890

GAS BOTTLE SN #:
DATE BOTTLE FILLED:
DATE TO BE INVOICED:

TKT # 4363

I



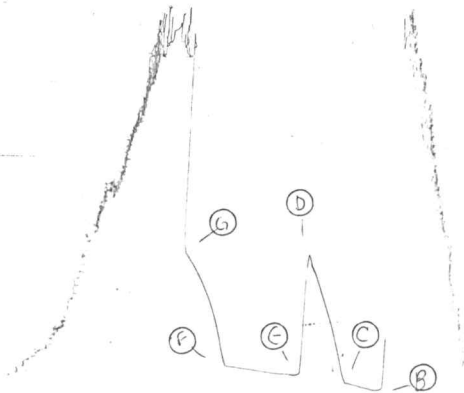
Red

TKT # 4363



(H)

(A)



5
2



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET

No. 4363

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

Elevation _____ Formation Hertha Eff. Pay _____ Ft.

#140 District Pratt Date 4/13/84 Customer Order No. _____

COMPANY NAME F.G. Hall

ADDRESS 6427 East Kellogg Wichita, Ks 67207

LEASE AND WELL NO. Smalley #1-18 COUNTY Harper STATE Ks Sec. 18 Twp. 325 Rge. 8W

Mail Invoice To Same Co. Name _____ Address _____ No. Copies Requested 5

Mail Charts To Same Address _____ No. Copies Requested 5

Formation Test No. 2 Interval Tested From 4075 ft. to 4116 ft. Total Depth 4116 ft.

Packer Depth 4070 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 4075 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4105 ft. Recorder Number 13547 Cap. 4225

Bottom Recorder Depth (Outside) 4108 ft. Recorder Number 13552 Cap. 4050

Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor Sterling #2 Drill Collar Length 396 I. D. 2 1/4 in.

Mud Type Chemical-Dispac Viscosity 45 Weight Pipe Length _____ I. D. _____ in.

Weight 9.1 Water Loss 11.2 cc. Drill Pipe Length 3/a58 I. D. 3 1/8 in.

Chlorides 12,000 P.P.M. Test Tool Length 21 ft. Tool Size 5/200 in.

Jars: Make _____ Serial Number _____ Anchor Length 41 ft. Size 5/200 in.

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

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

Blow: Strong blow throughout flow periods

Gas to surface immediately on second flow

Recovered 125 ft. of Oil & Gas Cut Mud (20% oil) (5% water)

Recovered 120 ft. of Oil & Gas Cut Mud (20% oil) (10% water)

Recovered 120 ft. of Gas Cut Muddy Oil (40% oil) (15% water)

Recovered 40 ft. of Foggy Gassy Oil (90% oil) (10% water)

Recovered _____ ft. of _____

Chlorides 69,000 P.P.M. Sample Jars used _____ Remarks: _____

Time On Location 1:00 A.M. Time Pick Up Tool 3:00 A.M. Time Off Location 10:30 A.M.

Time Set Packer(s) 4:45 A.M. Time Started Off Bottom 7:15 A.M. Maximum Temperature 121°

Initial Hydrostatic Pressure (A) 1923 P.S.I.

Initial Flow Period (B) 101 Minutes P.S.I. to (C) 132 P.S.I.

Initial Closed In Period (D) 791 Minutes P.S.I.

Final Flow Period (E) 152 Minutes P.S.I. to (F) 182 P.S.I.

Final Closed In Period (G) 761 Minutes P.S.I.

Final Hydrostatic Pressure (H) 1903 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.

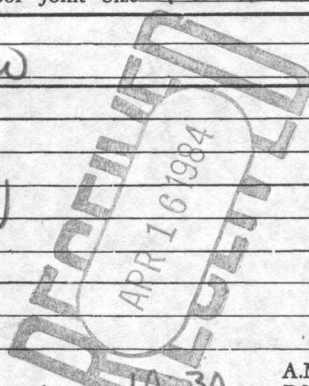
All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By W. Bruce Bidleman Signature of Customer or his authorized representative

Western Representative Jim Wondra Thank You
2376

FIELD INVOICE

Open Hole Test	\$ <u>595.00</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ _____
Safety Joint	\$ _____
Standby	\$ _____
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage	\$ _____
Fluid Sampler	\$ _____
Extra Charts	\$ _____
Insurance	\$ <u>150.00</u>
Telecopier	\$ _____
TOTAL	\$ <u>645.00</u>



WESTERN TESTING CO., INC.
Pressure Data

Date: 4-13-84 Test Ticket No. 4362
 Recorder No. 13552 Capacity 4050 Location 4108 Ft.
 Clock No. _____ Elevation _____ Well Temperature 121 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1931</u>	P.S.I.	<u>4:45</u> A	
B First Initial Flow Pressure	<u>104</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>134</u>	P.S.I.	<u>30</u> Mins.	<u>33</u> Mins.
D Initial Closed-in Pressure	<u>787</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>155</u>	P.S.I.	<u>30</u> Mins.	<u>33</u> Mins.
F Second Final Flow Pressure	<u>183</u>	P.S.I.		
G Final Closed-in Pressure	<u>753</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1895</u>	P.S.I.		

PRESSURE BREAKDOWN

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

Initial Shut-In
 Breakdown: 12 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 12 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

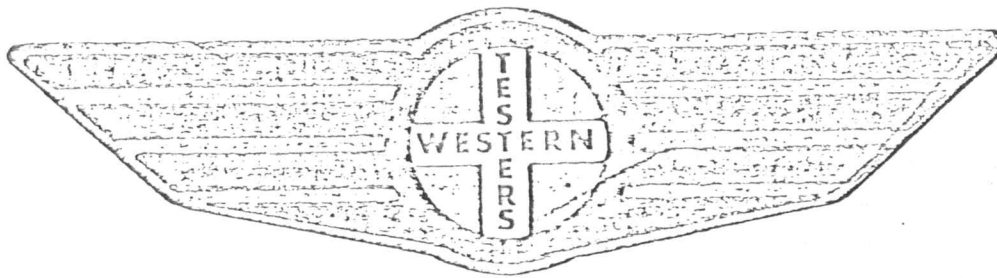
Final Shut-In
 Breakdown: 12 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>104</u>	0	<u>134</u>	0	<u>155</u>	0	<u>183</u>
P 2 5	<u>104</u>	3	<u>179</u>	5	<u>155</u>	3	<u>262</u>
P 3 10	<u>110</u>	6	<u>262</u>	10	<u>157</u>	6	<u>347</u>
P 4 15	<u>115</u>	9	<u>338</u>	15	<u>159</u>	9	<u>418</u>
P 5 20	<u>123</u>	12	<u>409</u>	20	<u>161</u>	12	<u>480</u>
P 6 25	<u>128</u>	15	<u>472</u>	25	<u>162</u>	15	<u>532</u>
P 7 30	<u>134</u>	18	<u>532</u>	30	<u>166</u>	18	<u>573</u>
P 8 35		21	<u>584</u>	35	<u>170</u>	21	<u>616</u>
P 9 40		24	<u>645</u>	40	<u>174</u>	24	<u>652</u> 717
P10 45		27	<u>696</u>	45	<u>177</u>	27	<u>688</u>
P11 50		30	<u>759</u>	50	<u>180</u>	30	<u>724</u>
P12 55		33	<u>787</u>	55	<u>182</u>	33	<u>753</u>
P13 60		36		60	<u>183</u>	36	
P14		39		65		39	
P15		42		70		42	
P16		45		75		45	
P17		48		80		48	
P18		51		85		51	
P19		54		90		54	
P20		57				57	
		60				60	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____
Lease and Well No. _____
Sec. _____ Twp. _____ Rge. _____
Test No. _____ Date _____

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 4/14/84
CUSTOMER: F.G. HOLL
WELL: 1-18
ELEVATION (KB): 0
SECTION: 18
RANGE: 8W
GAUGE SN #13552

TEST: 3
FORMATION: MISSISSIPPI
TOWNSHIP: 32S
COUNTY: HARPER
RANGE: 4050

TICKET #4364
LEASE: SMALLEY
GEOLOGIST: BIDLEMAN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4396 FT TO: 4414 FT TOTAL DEPTH: 4414 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4391 FT SIZE: 6 5/8 IN PACKER DEPTH: 4396 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: STERLING DRLG
MUD TYPE: CHEM-DRIS VISCOSITY: 45
WEIGHT: 9.1 WATER LOSS (CC): 11.2
CHLORIDES (P.P.M.): 12000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? YES REVERSED OUT? NO
DRILL COLLAR LENGTH: 396 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3979 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 18 FT SIZE: 5 1/2 OD 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 FH IN

BLOW: STRONG BLOW THROUGHOUT TEST.
GAS TO SURFACE IN 22 MINUTES ON FINAL FLOW.
SEE ATTACHED SHEET FOR GAS MEASUREMENTS.

RECOVERED: 180 FT OF: OIL & GAS CUT MUD. 40% OIL; 20% WATER.
RECOVERED: 750 FT OF: SALT WATER. CHLORIDES 120000 PPM.
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: READ OUTSIDE CHART.

TIME SET PACKER(S): 1:00 PM TIME STARTED OFF BOTTOM: 3:30 PM
WELL TEMPERATURE: 123 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2160 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 155 PSI TO (C) 232 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 1446 PSI
FINAL FLOW PERIOD MIN: 60 (E) 307 PSI TO (F) 431 PSI
FINAL CLOSED IN PERIOD MIN: 30 (G) 1431 PSI
FINAL HYDROSTATIC PRESSURE (H) 2111 PSI

WESTERN TESTING CO. INC.
GAS FLOW REPORT

DATE: 4/14/84
CUSTOMER: F.G. HOLL
WELL: 1-18
ELEVATION (KB): 0
SECTION: 18
RANGE: 8W
GAUGE SN #13552

TEST: 3

FORMATION: MISSISSIPPI
TOWNSHIP: 32S

COUNTY: HARPER
RANGE: 4050

TICKET #4364
LEASE: SMALLEY
GEOLOGIST: BIDLEMAN
STATE: KANSAS
CLOCK: 12

TIME GAUGE (MIN)	TESTER TYPE	ORIFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
---------------------	-------------	-----------------	-------------------	------------------

PRE FLOW

SECOND FLOW

30	MERLA	1/2	7"OF WTR	16700 CFPD
40			7"OF WTR	16700
50			7"OF WTR	16700
60			7"OF WTR	16700

GAS BOTTLE SN #:
DATE BOTTLE FILLED:
DATE TO BE INVOICED:

TKT # 4364



H

A

G

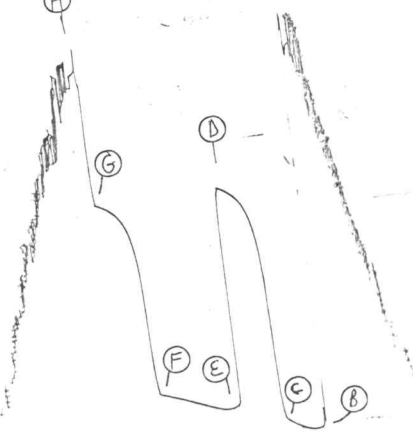
D

F

E

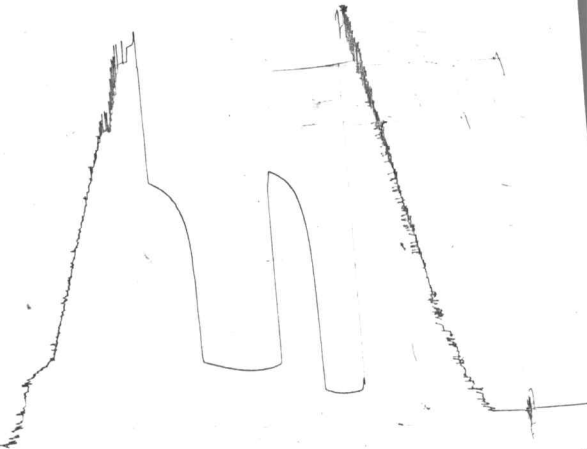
C

B



TKT # 4364

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WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N^o: 4364

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

Elevation _____ Formation Miss Eff. Pay _____ Ft.

District 12 Pratt Date 4/14/84 Customer Order No. _____

COMPANY NAME F.C. Hall

ADDRESS 6427 East Kellogg Wichita, KS 67207

LEASE AND WELL NO. Smalley #1-18 COUNTY Harper STATE Ks Sec. 18 Twp. 32 S Rge. 8 W

Mail Invoice To Same No. Copies Requested 5

Co. Name _____ Address _____

Mail Charts To Same No. Copies Requested 5

Formation Test No. 3 Interval Tested From 4396 ft. to 4414 ft. Total Depth 4414 ft.

Packer Depth 4396 ft. Size 6 1/8 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 4396 ft. Size 6 3/8 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4403 ft. Recorder Number 13547 Cap. 4225

Bottom Recorder Depth (Outside) 4406 ft. * Recorder Number 13552 Cap. 4050

Below Saddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____

Drilling Contractor Sterling Rig #2 Drill Collar Length 396 I. D. 2 1/4 in.

Mud Type Chemical Drispac Viscosity 45 Weight Pipe Length _____ I. D. _____ in.

Weight 9.1 Water Loss 11.2 cc. Drill Pipe Length 3979 I. D. 3 1/8 in.

Chlorides 12,000 P.P.M. Test Tool Length 21 ft. Tool Size 5/8 00 in.

Jars: Make _____ Serial Number _____ Anchor Length 18 ft. Size 5 1/2 00 in.

Did Well Flow? Yes 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 FH in.

Blow: Strong blow throughout flow periods

Gas to surface in 22 min on second flow

Recovered 180 ft. of Oil & Gas Cut Mud (407000) (20% water)

Recovered 750 ft. of Salt Water

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Chlorides 120,000 P.P.M. Sample Jars used _____ Remarks: _____

Read bottom Chart

RECEIVED
APR 16 1984

Time On Location 10:00 A.M. Time Pick Up Tool 11:00 P.M. Time Off Location 10:30 A.M.

Time Set Packer(s) 1:00 P.M. Time Started Off Bottom 3:30 P.M. Maximum Temperature 123^o

Initial Hydrostatic Pressure (A) 2145 P.S.I.

Initial Flow Period (B) 30 Minutes (C) 233 P.S.I.

Initial Closed In Period (D) 30 Minutes (E) 1459 P.S.I.

Final Flow Period (F) 60 Minutes (G) 315 P.S.I.

Final Closed In Period (H) 30 Minutes (I) 1429 P.S.I.

Final Hydrostatic Pressure (J) 2125 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 W. Bruce Billman
Signature of Customer or his authorized representative

Western Representative Jim Wondra Thank You

2376

FIELD INVOICE

Open Hole Test \$ 595.00
Misrun \$ _____
Straddle Test \$ _____
Jars \$ _____
Selective Zone \$ _____
Safety Joint \$ _____
Standby \$ _____
Evaluation \$ _____
Extra Packer \$ _____
Circ. Sub. \$ _____
Mileage \$ _____
Fluid Sampler \$ _____
Extra Charts \$ _____
Insurance \$ 150.00
Telecopier \$ _____
TOTAL \$ 645.00



No 3780

GAS FLOW REPORT

Date 4/14/84 Ticket 4364 Company F.G. Holl
 Well Name and No. Smalley #1-18 Dst No. 3 Interval Tested 4396-4414
 County Harper State Ks Sec. 18 Twp. 32 Rg. 8

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
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PRE FLOW

SECOND FLOW

Gas to surface 22 min on second flow

30	7 H ₂ O	2"			16,700 C.F.P.D
40	"	"			"
50	"	"			"
60	"	"			"

GAS BOTTLE

Serial No. _____ Date Bottle Filled _____ Date to be Invoiced _____

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., 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 Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (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 _____

WESTERN TESTING CO., INC.

Pressure Data

Date 4-14-84 Test Ticket No. 4364
 Recorder No. 13552 Capacity 4050 Location 4406 Ft.
 Clock No. _____ Elevation _____ Well Temperature 123 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2160</u>	P.S.I.		
B First Initial Flow Pressure	<u>155</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>232</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1446</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>307</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>431</u>	P.S.I.		
G Final Closed-in Pressure	<u>1431</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2111</u>	P.S.I.		

PRESSURE BREAKDOWN

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

Initial Shut-In
 Breakdown: 11 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.

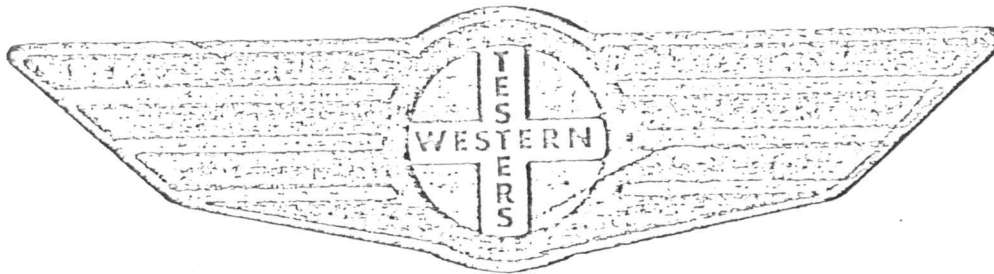
Final Shut-In
 Breakdown: 11 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>155</u>	0	<u>232</u>	0	<u>431</u>
P 2 5	<u>155</u>	3	<u>569</u>	5	<u>657</u>
P 3 10	<u>155</u>	6	<u>1087</u>	10	<u>1101</u>
P 4 15	<u>164</u>	9	<u>1234</u>	15	<u>1236</u>
P 5 20	<u>182</u>	12	<u>1307</u>	20	<u>1301</u>
P 6 25	<u>204</u>	15	<u>1354</u>	25	<u>1340</u>
P 7 30	<u>232</u>	18	<u>1384</u>	30	<u>1369</u>
P 8 35		21	<u>1402</u>	35	<u>1386</u>
P 9 40		24	<u>1419</u>	40	<u>1406</u>
P10 45		27	<u>1434</u>	45	<u>1418</u>
P11 50		30	<u>1446</u>	50	<u>1431</u>
P12 55		33		55	
P13 60		36		60	
P14		39		65	
P15		42		70	
P16		45		75	
P17		48		80	
P18		51		85	
P19		54		90	
P20		57			
		60			

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING COMPANY INC.
SUBSURFACE PRESSURE SURVEY

DATE: 4/15/84
CUSTOMER: F.G.HOLL
WELL: #1-18
ELEVATION (KB): 0
SECTION: 18
RANGE: 8W
GAUGE SN #13552

TEST: 4
FORMATION: VIOLA
TOWNSHIP: 32S
COUNTY: HARPER
RANGE: 4050

TICKET #4365
LEASE: SMALLEY
GEOLOGIST: BIDLEMAN
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4740 FT TO: 4749 FT TOTAL DEPTH: 4749 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4735 FT SIZE: 6 5/8 IN PACKER DEPTH: 4740 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: STERLING

MUD TYPE: PRMXSTRCH VISCOSITY: 60
WEIGHT: 9.2 WATER LOSS (CC): 9.2

CHLORIDES (P.P.M.): 30000

JARS - MAKE: SERIAL NUMBER:

DID WELL FLOW? NO REVERSED OUT? NO

DRILL COLLAR LENGTH: 396 FT I.D.: 2.25 IN

WEIGHT PIPE LENGTH: FT I.D.: IN

DRILL PIPE LENGTH: 4323 FT I.D.: 3.8 IN

TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 O.D. IN

ANCHOR LENGTH: 9 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 FH IN

BLOW: STRONG BLOW THROUGHOUT FLOW PERIODS

RECOVERED: 70 FT OF: OIL & GAS CUT MUD. 20% OIL; 10% WTR; 55% GAS
RECOVERED: 230 FT OF: OIL & GAS CUT MUD; 40% OIL; 10% WTR; 40% GAS.
RECOVERED: 70 FT OF: SALT WATER. CHLORIDES 98000 P.P.M.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: READ BOTTOM CHART. NO FINAL SHUT-IN
TOOL WOULD NOT TURN.

TIME SET PACKER(S): 9:30 P.M.

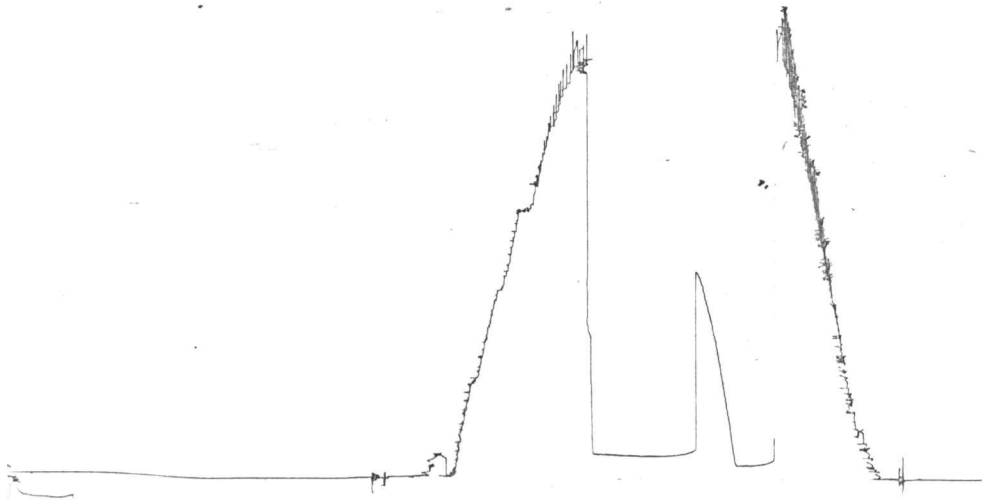
TIME STARTED OFF BOTTOM: 11:45 P.M.

WELL TEMPERATURE: 126 °F

INITIAL HYDROSTATIC PRESSURE: (A) 2251 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 73 PSI TO (C) 93 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 1208 PSI
FINAL FLOW PERIOD MIN: 75 (E) 133 PSI TO (F) 183 PSI
FINAL CLOSED IN PERIOD MIN: 0 (G) 0 PSI
FINAL HYDROSTATIC PRESSURE (H) 2251 PSI

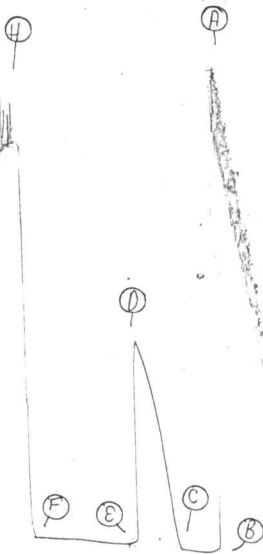
TKT # 4365

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TKT# 4365

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WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET

Nº

4365

OK

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

WICHITA, KANSAS 67201

Elevation

Formation

Viola

Eff. Pay - Ft.

H 140 District Pratt Date 4/15/84 Customer Order No. -

COMPANY NAME F.G. Holl

ADDRESS 6427 East Kellogg Wichita, Ks 67207

LEASE AND WELL NO. Smalley #1-18 COUNTY Harper STATE Ks Sec. 18 Twp. 32 Rge. 8W

Mail Invoice To Same #1-18 SMALLEY Co. Name Address No. Copies Requested 5

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 4 Interval Tested From 4740 ft. to 4749 ft. Total Depth 4749 ft.

Packer Depth 4735 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Packer Depth 4740 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4742 ft. Recorder Number 13547 Cap. 4225

Bottom Recorder Depth (Outside) 4745 ft. Recorder Number 13552 Cap. 4050

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Sterling Rig #2 Drill Collar Length 396 I. D. 2 1/4 in.

Mud Type Premier Starch Viscosity 60 Weight Pipe Length - I. D. - in.

Weight 9.2 Water Loss 9.2 cc. Drill Pipe Length 4323 I. D. 3 1/8 in.

Chlorides 30,000 P.P.M. Test Tool Length 21 ft. Tool Size 5/200 in.

Jars: Make - Serial Number - Anchor Length 9 ft. Size 5/200 in.

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

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

Blow: Strong blow throughout flow periods

Recovered 70 ft. of Oil + Gas Cut Mud (20% oil) (10% water) (55% Gas)

Recovered 230 ft. of Oil + Gas Cut Mud (40% oil) (10% water) (40% Gas)

Recovered 70 ft. of Salt Water

Recovered - ft. of

Recovered - ft. of

Chlorides 98,000 P.P.M. Sample Jars used - Remarks: Read bottom Chart

No final shut-in Tool would not turn

Time On Location 7:00 A.M. Time Pick Up Tool 8:00 P.M. Time Off Location 3:30 P.M.

Time Set Packer(s) 9:30 A.M. Time Started Off Bottom 11:45 P.M. Maximum Temperature 126°

Initial Hydrostatic Pressure (A) 2257 P.S.I.

Initial Flow Period Minutes 30 (B) 60 P.S.I. to (C) 91 P.S.I.

Initial Closed In Period Minutes 30 (D) 1206 P.S.I.

Final Flow Period Minutes 60 (E) 121 P.S.I. to (F) 162 P.S.I.

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

Final Hydrostatic Pressure (H) 2236 P.S.I.

RECEIVED APR 18 1984

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 W. Bryce Bidleman Signature of Customer or his authorized representative

Western Representative Jim Worden Thank You

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test (\$595.00), Miscrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance (\$50.00), Telecopier, and TOTAL (\$645.00).

WESTERN TESTING CO., INC.

Pressure Data

Date 4-15-84

Test Ticket No. 4365

Recorder No. 13552

Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2251</u>	P.S.I.		M
B First Initial Flow Pressure	<u>73</u>	P.S.I.	<u>30</u> Mins.	Mins.
C First Final Flow Pressure	<u>93</u>	P.S.I.	<u>30</u> Mins.	Mins.
D Initial Closed-in Pressure	<u>1208</u>	P.S.I.	<u>60</u> Mins.	Mins.
E Second Initial Flow Pressure	<u>133</u>	P.S.I.		
F Second Final Flow Pressure	<u>183</u>	P.S.I.		
G Final Closed-in Pressure		P.S.I.		
H Final Hydrostatic Mud	<u>2251</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>11</u> Inc.		Breakdown: <u>14</u> 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>73</u>	0	<u>93</u>	0	<u>133</u>	0	<u>0</u>
P 2 5	<u>1</u>	3	<u>250</u>	5	<u>1</u>	3	
P 3 10	<u>73</u>	6	<u>419</u>	10	<u>133</u>	6	
P 4 15	<u>77</u>	9	<u>587</u>	15	<u>135</u>	9	
P 5 20	<u>83</u>	12	<u>743</u>	20	<u>139</u>	12	
P 6 25	<u>89</u>	15	<u>858</u>	25	<u>146</u>	15	
P 7 30	<u>93</u>	18	<u>962</u>	30	<u>151</u>	18	
P 8 35		21	<u>1053</u>	35	<u>157</u>	21	
P 9 40		24	<u>1125</u>	40	<u>164</u>	24	
P 10 45		27	<u>1194</u>	45	<u>167</u>	27	
P 11 50		30	<u>1208</u>	50	<u>169</u>	30	
P 12 55		33		55	<u>171</u>	33	
P 13 60		36		60	<u>174</u>	36	
P 14		39		65	<u>179</u>	39	
P 15		42		70	<u>182</u>	42	
P 16		45		75	<u>183</u>	45	
P 17		48		80		48	
P 18		51		85		51	
P 19		54		90		54	
P 20		57				57	
		60				60	