



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET

No 18924

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

WICHITA, KANSAS 67201

Elevation 1840 KB Formation Miss Eff. Pay Ft.

District Pratt Date 9-8-93 Customer Order No.

COMPANY NAME Raymond Oil Co

ADDRESS Wichita, Kansas

LEASE AND WELL NO. Helmer #1 COUNTY Stafford STATE Kansas Sec. 33 Twp. 25 Rge. 11u

Mail Invoice To Same Co. Name Address No. Copies Requested 109

Mail Charts To Same Address No. Copies Requested 109

Formation Test No. 1 Interval Tested From 3960 ft. to 4000 ft. Total Depth 4000 ft.

Packer Depth 3955 ft. Size 6 3/8 in. Packer Depth 2 ft. Size 2 in.

Packer Depth 3960 ft. Size 6 3/8 in. Packer Depth 2 ft. Size 2 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3963 ft. Recorder Number 13265 Cap. 3975

Bottom Recorder Depth (Outside) 3966 ft. Recorder Number 13759 Cap. 3900

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Duke Drilling Rig 2 Drill Collar Length 0 I. D. in.

Mud Type Chem Viscosity 152 Weight Pipe Length 30 I. D. in.

Weight 9.5 Water Loss 8.8 cc. Drill Pipe Length 3938 I. D. 3.8 in.

Chlorides 6500 P.P.M. Test Tool Length 22 ft. Tool Size 5/8 in.

Jars: Make NO Serial Number Anchor Length 40 ft. Size 5/8 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 in.

Blow: Strong blow 25 minutes on initial flow

Strong blow in 55 minutes on final flow

Recovered 240 ft. of gas in pipe

Recovered 60 ft. of slightly oil & gas sub mud 15% gas 2% oil 83% mud

Recovered 60 ft. of

Recovered 60 ft. of

Recovered 60 ft. of

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

Time On Location 2:00 A.M. Time Pick Up Tool 4:10 P.M. Time Off Location 2:00 A.M.

Time Set Packer(s) 5:35 P.M. Time Started Off Bottom 11:35 P.M. Maximum Temperature 120 °F

Initial Hydrostatic Pressure (A) 2000 P.S.I.

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

Initial Closed In Period Minutes 120 (D) 1148 P.S.I.

Final Flow Period Minutes 60 (E) 50 P.S.I. to (F) 50 P.S.I.

Final Closed In Period Minutes 120 (G) 1000 P.S.I.

Final Hydrostatic Pressure (H) 2000 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 Tim Heuman

Signature of Customer or his authorized representative

Western Representative Red Bird - Thank you

FIELD INVOICE

Open Hole Test	\$
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 9-8-93Test Ticket No. 18924Recorder No. 13265Capacity 3975

Location _____ Ft.

Clock No. _____ Elevation

1840 KB

Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2000</u>	P.S.I.	<u>64rs</u> M	<u>64rs</u>
B First Initial Flow Pressure	<u>30-30</u>	P.S.I.	<u>60</u> Mins	<u>60</u> Mins.
C First Final Flow Pressure	<u>50-50</u>	P.S.I.	<u>120</u> Mins	<u>120</u> Mins.
D Initial Closed-in Pressure	<u>1148</u>	P.S.I.	<u>60</u> Mins	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>30</u>	P.S.I.	<u>120</u> Mins	<u>120</u> Mins.
F Second Final Flow Pressure	<u>50</u>	P.S.I.		
G Final Closed-in Pressure	<u>1000</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2000</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 <u>5</u>	<u>26</u>	<u>3</u>	<u>26</u>	<u>5</u>	<u>46</u>	<u>3</u>	<u>48</u>
P 2 <u>10</u>	<u>26</u>	<u>6</u>	<u>26</u>	<u>10</u>	<u>46</u>	<u>6</u>	<u>54</u>
P 3 <u>15</u>	<u>26</u>	<u>9</u>	<u>30</u>	<u>15</u>	<u>46</u>	<u>9</u>	<u>66</u>
P 4 <u>20</u>	<u>26</u>	<u>12</u>	<u>44</u>	<u>20</u>	<u>46</u>	<u>12</u>	<u>88</u>
P 5 <u>25</u>	<u>26</u>	<u>15</u>	<u>60</u>	<u>25</u>	<u>46</u>	<u>15</u>	<u>110</u>
P 6 <u>30</u>	<u>26</u>	<u>18</u>	<u>90</u>	<u>30</u>	<u>46</u>	<u>18</u>	<u>131</u>
P 7 <u>35</u>	<u>26</u>	<u>21</u>	<u>106</u>	<u>35</u>	<u>46</u>	<u>21</u>	<u>151</u>
P 8 <u>40</u>	<u>26</u>	<u>24</u>	<u>130</u>	<u>40</u>	<u>46</u>	<u>24</u>	<u>171</u>
P 9 <u>45</u>	<u>26</u>	<u>27</u>	<u>150</u>	<u>45</u>	<u>46</u>	<u>27</u>	<u>193</u>
P10 <u>50</u>	<u>26</u>	<u>30</u>	<u>181</u>	<u>50</u>	<u>46</u>	<u>30</u>	<u>227</u>
P11 <u>55</u>	<u>26</u>	<u>33</u>	<u>215</u>	<u>55</u>	<u>46</u>	<u>33</u>	<u>258</u>
P12 <u>60</u>	<u>26</u>	<u>36</u>	<u>252</u>	<u>60</u>	<u>46</u>	<u>36</u>	<u>296</u>
P13 _____		<u>39</u>	<u>302</u>			<u>39</u>	<u>336</u>
P14 _____		<u>42</u>	<u>348</u>			<u>42</u>	<u>373</u>
P15 _____		<u>45</u>	<u>399</u>			<u>45</u>	<u>411</u>
P16 _____		<u>48</u>	<u>453</u>			<u>48</u>	<u>455</u>
P17 _____		<u>51</u>	<u>515</u>			<u>51</u>	<u>493</u>
P18 _____		<u>54</u>	<u>567</u>			<u>54</u>	<u>533</u>
P19 _____		<u>57</u>	<u>607</u>			<u>57</u>	<u>573</u>
P20 _____		<u>60</u>	<u>668</u>			<u>60</u>	<u>609</u>

WESTERN TESTING CO., INC.

Pressure Data

Date _____ Test Ticket No. _____
 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

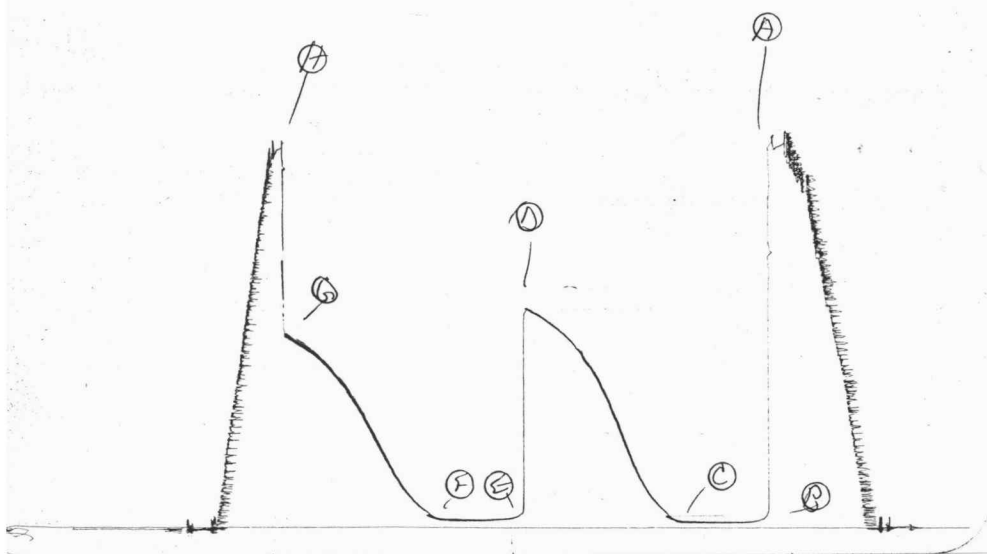
First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 _____		63	694			63	638
P 2 _____		66	746			66	672
P 3 _____		69	791			69	706
P 4 _____		72	825			72	737
P 5 _____		75	845			75	758
P 6 _____		78	882			78	783
P 7 _____		81	914			81	807
P 8 _____		84	932			84	835
P 9 _____		87	960			87	859
P10 _____		90	980			90	825
P11 _____		93	1004			93	892
P12 _____		96	1020			96	910
P13 _____		99	1033			99	926
P14 _____		102	1049			102	936
P15 _____		105	1063			105	944
P16 _____		108	1079			108	960
P17 _____		111	1093			111	970
P18 _____		114	1109			114	986
P19 _____		117	1115			117	996
P20 _____		120	1128			120	1000

13265 DS+ #1

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KT 18924

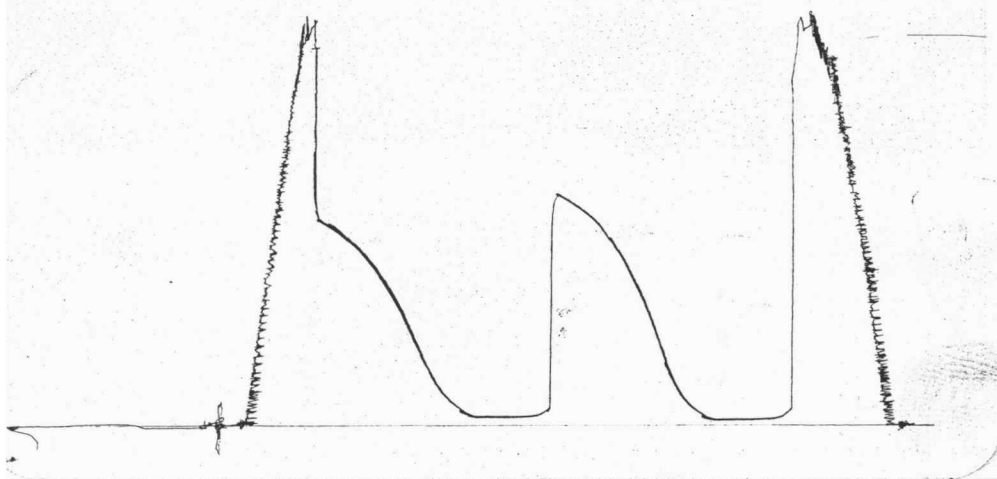
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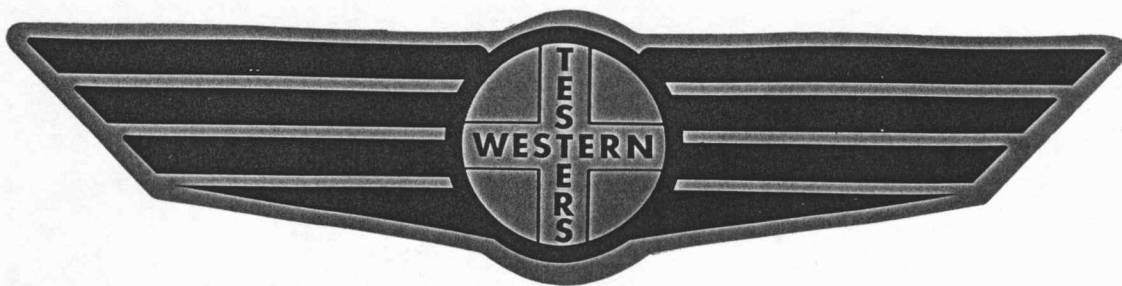
13759 DS+ #1

KT 18924

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 80 - 688 - 7021

COMPANY RAYMOND OIL COMPANY INC
LEASE & WELL NO. HELMER #1
SEC. 33 TWP. 25S RGE. 11W TEST NO. 1
DATE 9/8/93

DST REPORT

GENERAL INFORMATION

DATE	: 9/8/93	TICKET	: 18924
CUSTOMER	: RAYMOND OIL COMPANY INC	LEASE	: HELMER
WELL	: #1	TEST: 1	GEOLOGIST: HELLMAN
ELEVATION	: 1840 KB	FORMATION	: MISSISSIPPI
SECTION	: 33	TOWNSHIP	: 25S
RANGE	: 11W	STATE	: KS
GAUGE SN#	: 13265	RANGE	: 3975
		CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	3960.00 ft	TO:	4000.00 ft	TVD:	4000.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	3963.0 ft		3966.0 ft		
TEMPERATURE:	120.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:		0.000 in	
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:		0.000 in	
DRILL PIPE LENGTH :	3938.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH :	22.0 ft	TOOL SIZE :		5.500 in	
ANCHOR LENGTH :	40.0 ft	ANCHOR SIZE:		5.500 in	
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:		0.750 in	
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :		4.5XH	
PACKER DEPTH:	3955.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	3960.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	

MUD INFORMATION

DRILLING CON. :	DUKE DRLG RIG 2	VISCOSITY :	52.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	8.800 cc
WEIGHT :	9.500 ppg	SERIAL NUMBER:	
CHLORIDES :	6500 ppm	REVERSED OUT?:	NO
JARS-MAKE :			
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW IN 25 MINUTES.
FINAL FLOW PERIOD STRONG BLOW IN 55 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
0.0	0.0	0.0	0.0	0.0	240 FT GAS ABOVE FLUID
60.0	2.0	15.0	0.0	83.0	SL OIL & GAS CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0168 STB		
GAS VOLUME:	0.7088 SCF		
MUD VOLUME:	0.6985 STB	TOTAL FLOW TIME:	120.0000 min.
WATER VOLUME:	0.0000 STB	AVERAGE OIL RATE:	8.5841 STB/D
TOTAL FLUID :	0.7153 STB	AVERAGE WATER RATE:	0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2000.00

Description	Duration	p1	p End
INITIAL FLOW	60.00	30.00	30.00
INITIAL SHUT-IN	120.00		1148.00
FINAL FLOW	60.00	50.00	50.00
FINAL SHUT-IN	120.00		1000.00

FINAL HYDROSTATIC PRESSURE: 2000.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2000.00

Description	Duration	p1	p End
INITIAL FLOW	60.00	26.00	26.00
INITIAL SHUT-IN	120.00		1128.00
FINAL FLOW	60.00	46.00	46.00
FINAL SHUT-IN	120.00		1000.00

FINAL HYDROSTATIC PRESSURE: 2000.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/8/93	TICKET : 18924
CUSTOMER : RAYMOND OIL COMPANY INC	LEASE : HELMER
WELL : #1	GEOLOGIST: HELLMAN
ELEVATION: 1840 KB	FORMATION: MISSISSIPPI
SECTION : 33	TOWNSHIP : 25S
RANGE : 11W	STATE : KS
GAUGE SN#: 13265	CLOCK : 12
COUNTY: STAFFORD	
RANGE : 3975	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	26.00	26.00
5.00	26.00	0.00
10.00	26.00	0.00
15.00	26.00	0.00
20.00	26.00	0.00
25.00	26.00	0.00
30.00	26.00	0.00
35.00	26.00	0.00
40.00	26.00	0.00
45.00	26.00	0.00
50.00	26.00	0.00
55.00	26.00	0.00
60.00	26.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	26.00	26.00	0.00
6.00	26.00	0.00	0.00
9.00	30.00	4.00	0.00
12.00	44.00	14.00	0.00
15.00	60.00	16.00	0.00
18.00	90.00	30.00	0.00
21.00	106.00	16.00	0.00
24.00	131.00	25.00	0.00
27.00	151.00	20.00	0.00
30.00	181.00	30.00	0.00
33.00	215.00	34.00	0.00
36.00	252.00	37.00	0.00
39.00	302.00	50.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
42.00	348.00	46.00	0.00
45.00	399.00	51.00	0.00
48.00	453.00	54.00	0.00
51.00	515.00	62.00	0.00
54.00	567.00	52.00	0.00
57.00	607.00	40.00	0.00
60.00	668.00	61.00	0.00
63.00	694.00	26.00	0.00
66.00	746.00	52.00	0.00
69.00	791.00	45.00	0.00
72.00	825.00	34.00	0.00
75.00	845.00	20.00	0.00
78.00	882.00	37.00	0.00
81.00	914.00	32.00	0.00
84.00	932.00	18.00	0.00
87.00	960.00	28.00	0.00
90.00	980.00	20.00	0.00
93.00	1004.00	24.00	0.00
96.00	1020.00	16.00	0.00
99.00	1033.00	13.00	0.00
102.00	1049.00	16.00	0.00
105.00	1063.00	14.00	0.00
108.00	1079.00	16.00	0.00
111.00	1093.00	14.00	0.00
114.00	1109.00	16.00	0.00
117.00	1115.00	6.00	0.00
120.00	1128.00	13.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	46.00	46.00
5.00	46.00	0.00
10.00	46.00	0.00
15.00	46.00	0.00
20.00	46.00	0.00
25.00	46.00	0.00
30.00	46.00	0.00
35.00	46.00	0.00
40.00	46.00	0.00
45.00	46.00	0.00
50.00	46.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
55.00	46.00	0.00
60.00	46.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	48.00	48.00	0.00
6.00	56.00	8.00	0.00
9.00	66.00	10.00	0.00
12.00	88.00	22.00	0.00
15.00	110.00	22.00	0.00
18.00	131.00	21.00	0.00
21.00	151.00	20.00	0.00
24.00	171.00	20.00	0.00
27.00	193.00	22.00	0.00
30.00	227.00	34.00	0.00
33.00	258.00	31.00	0.00
36.00	296.00	38.00	0.00
39.00	336.00	40.00	0.00
42.00	373.00	37.00	0.00
45.00	411.00	38.00	0.00
48.00	455.00	44.00	0.00
51.00	493.00	38.00	0.00
54.00	533.00	40.00	0.00
57.00	573.00	40.00	0.00
60.00	609.00	36.00	0.00
63.00	638.00	29.00	0.00
66.00	672.00	34.00	0.00
69.00	706.00	34.00	0.00
72.00	737.00	31.00	0.00
75.00	758.00	21.00	0.00
78.00	783.00	25.00	0.00
81.00	807.00	24.00	0.00
84.00	835.00	28.00	0.00
87.00	859.00	24.00	0.00
90.00	875.00	16.00	0.00
93.00	892.00	17.00	0.00
96.00	910.00	18.00	0.00
99.00	926.00	16.00	0.00
102.00	936.00	10.00	0.00
105.00	944.00	8.00	0.00
108.00	960.00	16.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
111.00	970.00	10.00	0.00
114.00	986.00	16.00	0.00
117.00	996.00	10.00	0.00
120.00	1000.00	4.00	0.00



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

Final
No 18925

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

Elevation 1840 LB Formation VIOLIA Eff. Pay _____ Ft.

District PRATT Date 9-9-93 Customer Order No. _____

COMPANY NAME Raymond oil co

ADDRESS Wichita, Kansas

LEASE AND WELL NO. Helmer #1 COUNTY Stafford STATE Kansas Sec. 33 Twp. 25 Rge. 14

Mail Invoice To SAIME Co. Name _____ Address _____ No. Copies Requested 1

Mail Charts To SAIME Address _____ No. Copies Requested 1

Formation Test No. 2 Interval Tested From 4140 ft. to 4150 ft. Total Depth 4150 ft.

Packer Depth 4135 ft. Size 678 in. Packer Depth 2 ft. Size 2 in.

Packer Depth 4140 ft. Size 678 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4143 ft. Recorder Number 13265 Cap. 3975

Bottom Recorder Depth (Outside) 4146 ft. Recorder Number 13759 Cap. 3900

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

Drilling Contractor Duke Drilling Rig 2 Drill Collar Length 0 I. D. _____ in.

Mud Type Chen Viscosity 50 Weight Pipe Length 0 I. D. _____ in.

Weight 9.5 Water Loss 10.4 cc. Drill Pipe Length 4118 I. D. 3.8 in.

Chlorides 2,000 P.P.M. Test Tool Length 22 ft. Tool Size 5/8 in.

Jars: Make NO Serial Number NO Anchor Length 10 ft. Size 5/8 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 1 1/2 in.

Blow: Very weak 1/4 inch flow on initial flow & died 20 minutes

Recovered _____ ft. of _____

Recovered 5 ft. of slightly oil cut mud (1% oil)

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

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

Time On Location 1:30 AM Time Pick Up Tool 1:45 AM Time Off Location 6:00 AM

Time Set Packer(s) 3:00 AM Time Started Off Bottom 4:00 AM Maximum Temperature 118 °F

Initial Hydrostatic Pressure _____ (A) 2150 P.S.I.

Initial Flow Period _____ Minutes 30 (B) 20 P.S.I. to (C) 20 P.S.I.

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

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

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

Final Hydrostatic Pressure _____ (H) 2099 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 Tim Heuman
Signature of Customer or his authorized representative

Western Representative Doc Britt - Thank you

FIELD INVOICE

Open Hole Test	\$
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 9-9-92

Test Ticket No. 18925

Recorder No. 12265

Capacity _____ Location _____ Ft.

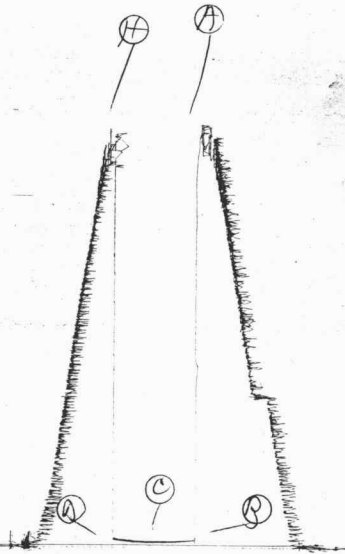
Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>215</u> P.S.I.	Open Tool	M	
B First Initial Flow Pressure	<u>34</u> P.S.I.	First Flow Pressure	Mins. <u>30</u>	Mins.
C First Final Flow Pressure	<u>34</u> P.S.I.	Initial Closed-in Pressure	Mins. <u>30</u>	Mins.
D Initial Closed-in Pressure	<u>44</u> 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	<u>209</u> P.S.I.			

PRESSURE BREAKDOWN

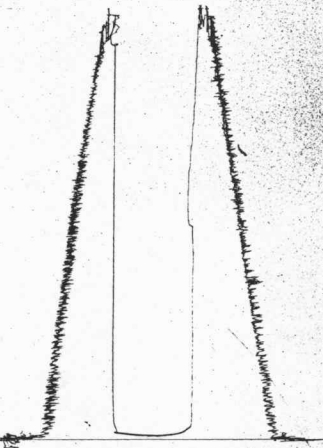
First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final 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>215</u>	0	<u>34</u>	0		0	
P 2 5	<u>34</u>	3	<u>34</u>	5		3	
P 3 10		6	<u>35</u>	10		6	
P 4 15		9	<u>35</u>	15		9	
P 5 20		12	<u>36</u>	20		12	
P 6 25		15	<u>36</u>	25		15	
P 7 30	<u>34</u>	18	<u>37</u>	30		18	
P 8 35		21	<u>38</u>	35		21	
P 9 40		24	<u>40</u>	40		24	
P10 45		27	<u>42</u>	45		27	
P11 50		30	<u>44</u>	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	

10240
A K+18925
I

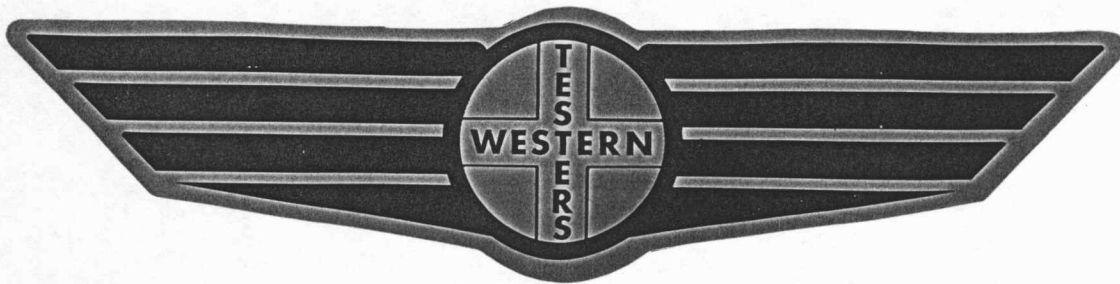


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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 80 - 688 - 7021

DST REPORT

GENERAL INFORMATION

DATE : 9/9/93
CUSTOMER : RAYMOND OIL COMPANY INC
WELL : #1 TEST: 2
ELEVATION: 1840 KB
SECTION : 33
RANGE : 11W COUNTY: STAFFORD
GAUGE SN#: 13265 RANGE : 3975

TICKET : 18925
LEASE : HELMER
GEOLOGIST: HELLMAN
FORMATION: VIOLA
TOWNSHIP : 25S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4140.00 ft TO: 4150.00 ft TVD: 4150.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4143.0 ft 4146.0 ft
TEMPERATURE: 118.0

DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	4118.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	22.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	10.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH:	4135.0 ft	SIZE:	6.630 in
PACKER DEPTH:	4140.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : DUKE DRLG RIG 2
MUD TYPE : CHEMICAL
WEIGHT : 9.500 ppg
CHLORIDES : 7000 ppm
JARS-MAKE :
DID WELL FLOW?: NO

VISCOSITY : 50.00 cp
WATER LOSS: 10.400 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW IN 25 MINUTES.
FINAL FLOW PERIOD STRONG BLOW IN 55 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
5.0	1.0	0.0	0.0	99.0	SLIGHTLY OIL CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0007	STB	TOTAL FLOW TIME:	30.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	3.3663	STB/D
MUD VOLUME:	0.0694	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.0701	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2150.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	20.00	20.00
INITIAL SHUT-IN	30.00		30.00
FINAL FLOW	0.00	0.00	0.00
FINAL SHUT-IN	0.00		0.00

FINAL HYDROSTATIC PRESSURE: 2099.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2151.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	34.00	34.00
INITIAL SHUT-IN	30.00		44.00
FINAL FLOW	0.00	0.00	0.00

FINAL HYDROSTATIC PRESSURE: 2092.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9/9/93	TICKET : 18925
CUSTOMER : RAYMOND OIL COMPANY INC	LEASE : HELMER
WELL : #1 TEST: 2	GEOLOGIST: HELLMAN
ELEVATION: 1840 KB	FORMATION: VIOLA
SECTION : 33	TOWNSHIP : 25S
RANGE : 11W COUNTY: STAFFORD	STATE : KS
GAUGE SN#: 13265 RANGE : 3975	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	34.00	34.00
5.00	34.00	0.00
10.00	34.00	0.00
15.00	34.00	0.00
20.00	34.00	0.00
25.00	34.00	0.00
30.00	34.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	34.00	34.00	0.00
6.00	35.00	1.00	0.00
9.00	35.00	0.00	0.00
12.00	36.00	1.00	0.00
15.00	36.00	0.00	0.00
18.00	37.00	1.00	0.00
21.00	38.00	1.00	0.00
24.00	40.00	2.00	0.00
27.00	42.00	2.00	0.00
30.00	44.00	2.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	0.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN

Time
(min)

Pressure

Delta P

Horner T

No Data Entered