



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

No 13210

6K

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

Elevation Formation K.C. Eff. Pay Ft.

District Augusta Date 4-11-82 Customer Order No.

COMPANY NAME Rains & Williamson Oil Company Inc.

ADDRESS 435 Page Court, 220 W. Douglas Wichita KS 67202

LEASE AND WELL NO. Holman #2 COUNTY Sumner STATE KS Sec 33 Twp 30S Rge 1E

Mail Invoice To Same Holman #2 Co. Name Address No. Copies Requested 1

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 1 Interval Tested from 2910 ft. to 2925 ft. Total Depth 2925 ft.

Packer Depth 2910 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 2905 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2915 ft. Recorder Number 13268 Cap. 4225

Bottom Recorder Depth (Outside) 2919 ft. Recorder Number 11019 Cap. 4500

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Rains & Williamson #3 Drill Collar Length 436 I. D. 2 1/4 in.

Mud Type Chem Viscosity 38 Weight Pipe Length I. D. in.

Weight 9.3 Water Loss 12.1 cc. Drill Pipe Length 2454 I. D. in.

Chlorides 4000 P.P.M. Test Tool Length 20 ft. Tool Size in.

Jars: Make Nony Serial Number Anchor Length 15 ft. Size 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 45 X H in.

Blow: Weak flow 20 min into test flow on the initial flow period

Recovered 1 ft. of Free oil

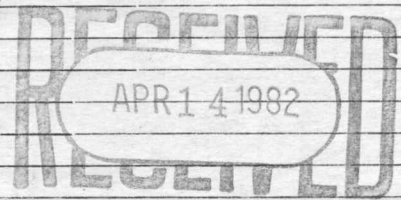
Recovered 30 ft. of Slightly oil spotted drilling mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:



Time On Location 6:30 AM Time Pick Up Tool 8:00 AM Time Off Location 3:00 AM

Time Set Packer(s) 9:00 AM Time Started Off Bottom 11:00 AM Maximum Temperature 104 degrees

Initial Hydrostatic Pressure (A) 1413 P.S.I.

Initial Flow Period Minutes 30 (B) 32 P.S.I. to (C) 32 P.S.I.

Initial Closed In Period Minutes 30 (D) 959 P.S.I.

Final Flow Period Minutes 30 (E) 42 P.S.I. to (F) 42 P.S.I.

Final Closed In Period Minutes 30 (G) 1023 P.S.I.

Final Hydrostatic Pressure (H) 1413 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 C.P. Chan Signature of Customer or his authorized representative

Western Representative Robert Davis

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test (\$600.00), Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, and TOTAL (\$600.00).

NO Discount

WESTERN TESTING CO., INC.

Pressure Data

Date 4-11 Test Ticket No. 13210  
 Recorder No. 13268 Capacity 4225 Location 2915 P  
 Clock No. --- Elevation --- Well Temperature 104 °

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1424</u> P.S.I.	Open Tool	<u>9:00</u> P	M
B First Initial Flow Pressure	<u>41</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>41</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>970</u> P.S.I.	Second Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>53</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>72</u> Mins.
F Second Final Flow Pressure	<u>53</u> P.S.I.			
G Final Closed-in Pressure	<u>1036</u> P.S.I.			
H Final Hydrostatic Mud	<u>1399</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure  
 Breakdown: 6 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

Initial Shut-In  
 Breakdown: 10 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

Second Flow Pressure  
 Breakdown: 6 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

Final Shut-In  
 Breakdown: 24 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>41</u>	0	<u>41</u>	0	<u>53</u>	0	<u>53</u>
P 2 5		3	<u>42</u>	5		3	<u>55</u>
P 3 10		6	<u>45</u>	10		6	<u>56</u>
P 4 15		9	<u>58</u>	15		9	<u>61</u>
P 5 20		12	<u>113</u>	20		12	<u>71</u>
P 6 25		15	<u>316</u>	25		15	<u>88</u>
P 7 30	<u>41</u>	18	<u>623</u>	30	<u>53</u>	18	<u>115</u>
P 8 35		21	<u>785</u>	35		21	<u>169</u>
P 9 40		24	<u>874</u>	40		24	<u>291</u>
P10 45		27	<u>934</u>	45		27	<u>442</u>
P11 50		30	<u>970</u>	50		30	<u>598</u>
P12 55		38		55		33	<u>728</u>
P13 60		36		60		36	<u>811</u>
P14		39		65		39	<u>853</u>
P15		42		70		42	<u>887</u>
P16		45		75		45	<u>921</u>
P17		48		80		48	<u>949</u>
P18		51		85		51	<u>968</u>
P19		54		90		54	<u>983</u>
P20		57				57	<u>996</u>
		60				60	<u>1006</u>

omit

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date \_\_\_\_\_

Test Ticket No. 13210

Recorder No. \_\_\_\_\_ Capacity \_\_\_\_\_ Location \_\_\_\_\_

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**

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc. of _____ mins. and a final inc. of _____ Min.
	Press.	Point Minutes	Press.	Point Minutes
P 1 _____	_____	63	_____	63
P 2 _____	_____	66	_____	66
P 3 _____	_____	69	_____	69
P 4 _____	_____	72	_____	72
P 5 _____	_____	75	_____	75
P 6 _____	_____	78	_____	78
P 7 _____	_____	81	_____	81
P 8 _____	_____	84	_____	84
P 9 _____	_____	87	_____	87
P10 _____	_____	90	_____	90
P11 _____	_____	93	_____	93
P12 _____	_____	96	_____	96
P13 _____	_____	99	_____	99
P14 _____	_____	102	_____	102
P15 _____	_____	105	_____	105
P16 _____	_____	108	_____	108
P17 _____	_____	111	_____	111
P18 _____	_____	114	_____	114
P19 _____	_____	117	_____	117
P20 _____	_____	120	_____	120

Company Rains & Williamson Oil Company Lease & Well No. Holman #2  
 Elevation - Formation Kansas City Effective Pay - Ft. Ticket No. 13210  
 Date 4/11/82 Sec. 33 Twp. 30S Range 1E County Sumner State Kansas  
 Test Approved by C P Chase Western Representative Robert Davis

Formation Test No. 1 Interval Tested from 2910 ft. to 2925 ft. Total Depth 2925 ft.  
 Packer Depth 2910 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Packer Depth 2905 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2915 ft. Recorder Number 13268 Cap. 4225  
 Bottom Recorder Depth (Outside) 3919 ft. Recorder Number 11019 Cap. 4500  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Rains & Williamson Rig #3 Drill Collar Length 436 I. D. 2 1/2 in.  
 Mud Type Chemical Viscosity 38 Weight Pipe Length - I. D. - in.  
 Weight 9.3 Water Loss 12.1 cc. Drill Pipe Length 2454 I. D. - in.  
 Chlorides 4000 P.P.M. Test Tool Length 20 ft. Tool Size - in.  
 Jars: Make - Serial Number - Anchor Length 15 ft. Size - 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 blow died in 20 minutes initial flow period.

Recovered 1 ft. of free oil  
 Recovered 30 ft. of slightly oil spotted drilling mud  
 Recovered - ft. of -  
 Recovered - ft. of -  
 Recovered - ft. of -

Remarks: \_\_\_\_\_

Time Set Packer(s) 9:00 ~~A.M.~~ P.M. Time Started Off Bottom 11:00 ~~A.M.~~ P.M. Maximum Temperature 104  
 Initial Hydrostatic Pressure ..... (A) 1424 P.S.I.  
 Initial Flow Period ..... Minutes 30 (B) 41 P.S.I. to (C) 41 P.S.I.  
 Initial Closed In Period ..... Minutes 30 (D) 970 P.S.I.  
 Final Flow Period ..... Minutes 30 (E) 53 P.S.I. to (F) 53 P.S.I.  
 Final Closed In Period ..... Minutes 72 (G) 1036 P.S.I.  
 Final Hydrostatic Pressure ..... (H) 1399 P.S.I.

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 4/11/82 Test Ticket No. 13210  
 Recorder No. 13268 Capacity 4225 Location 2915 Ft.  
 Clock No. - Elevation - Well Temperature 104 °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1424</u>	P.S.I.	<u>9:00P</u>	<u>M</u>
B. First Initial Flow Pressure	<u>41</u>	P.S.I.	<u>30</u>	<u>Mins. 30</u>
C. First Final Flow Pressure	<u>41</u>	P.S.I.	<u>30</u>	<u>Mins. 30</u>
D. Initial Closed-in Pressure	<u>970</u>	P.S.I.	<u>30</u>	<u>Mins. 30</u>
E. Second Initial Flow Pressure	<u>53</u>	P.S.I.	<u>30</u>	<u>Mins. 72</u>
F. Second Final Flow Pressure	<u>53</u>	P.S.I.		
G. Final Closed-in Pressure	<u>1036</u>	P.S.I.		
H. Final Hydrostatic Mud	<u>1399</u>	P.S.I.		

**PRESSURE BREAKDOWN**

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>24</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>41</u>	<u>0</u>	<u>53</u>	<u>0</u>	<u>53</u>
P 2	<u>5</u>	<u>3</u>	<u>42</u>	<u>5</u>	<u>53</u>	<u>3</u>	<u>55</u>
P 3	<u>10</u>	<u>6</u>	<u>45</u>	<u>10</u>	<u>53</u>	<u>6</u>	<u>56</u>
P 4	<u>15</u>	<u>9</u>	<u>58</u>	<u>15</u>	<u>53</u>	<u>9</u>	<u>61</u>
P 5	<u>20</u>	<u>12</u>	<u>113</u>	<u>20</u>	<u>53</u>	<u>12</u>	<u>71</u>
P 6	<u>25</u>	<u>15</u>	<u>316</u>	<u>25</u>	<u>53</u>	<u>15</u>	<u>88</u>
P 7	<u>30</u>	<u>18</u>	<u>623</u>	<u>30</u>	<u>53</u>	<u>18</u>	<u>115</u>
P 8	<u>41</u>	<u>21</u>	<u>785</u>			<u>21</u>	<u>169</u>
P 9		<u>24</u>	<u>874</u>			<u>24</u>	<u>291</u>
P10		<u>27</u>	<u>934</u>			<u>27</u>	<u>442</u>
P11		<u>30</u>	<u>970</u>			<u>30</u>	<u>598</u>
P12						<u>33</u>	<u>728</u>
P13						<u>36</u>	<u>811</u>
P14						<u>39</u>	<u>853</u>
P15						<u>42</u>	<u>887</u>
P16						<u>45</u>	<u>921</u>
P17						<u>48</u>	<u>949</u>
P18						<u>51</u>	<u>968</u>
P19						<u>54</u>	<u>983</u>
P20						<u>57</u>	<u>996</u>
						<u>60</u>	<u>1006</u>

**WESTERN TESTING CO., INC.**

**Pressure Data**

Date 4/11/82 Test Ticket No. 13210  
 Recorder No. 13268 Capacity 4225 Location 2915 Ft.  
 Clock No. - Elevation - Well Temperature 104 °F

Point	Pressure			Time Given	Time Computed
				M	Mins.
A. Initial Hydrostatic Mud	<u>1424</u>	P.S.I.	Open Tool	9:00P	
B. First Initial Flow Pressure	<u>41</u>	P.S.I.	First Flow Pressure	30	30
C. First Final Flow Pressure	<u>41</u>	P.S.I.	Initial Closed-in Pressure	30	30
D. Initial Closed-in Pressure	<u>970</u>	P.S.I.	Second Flow Pressure	30	30
E. Second Initial Flow Pressure	<u>53</u>	P.S.I.	Final Closed-in Pressure	30	72
F. Second Final Flow Pressure	<u>53</u>	P.S.I.			
G. Final Closed-in Pressure	<u>1036</u>	P.S.I.			
H. Final Hydrostatic Mud	<u>1399</u>	P.S.I.			

**PRESSURE BREAKDOWN**

**First Flow Pressure**  
 Breakdown: 6 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Initial Shut-In**  
 Breakdown: 10 Inc.  
 of 3 mins. and a  
 final inc. of 0 Min.

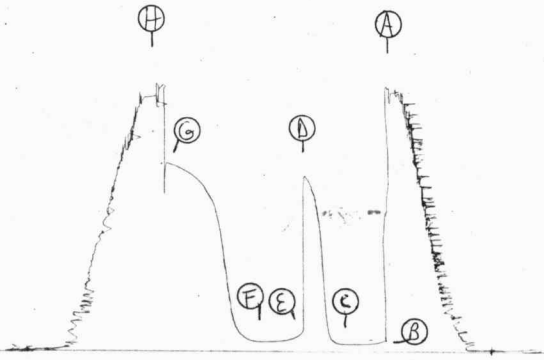
**Second Flow Pressure**  
 Breakdown: 6 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Final Shut-In**  
 Breakdown: 24 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						63	1019
P 2						66	1027
P 3						69	1034
P 4						72	1036
P 5							
P 6							
P 7							
P 8							
P 9							
P10							
P11							
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TKT #13210

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WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 13147

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

Elevation 1214 KB Formation Simpson Sol Eff. Pay Ft.

District Augusta Date 4-16-82 Customer Order No.

COMPANY NAME Rains & Williamson Oil Co. Inc.

ADDRESS 435 Page Ct 220 W Douglas Wichita, Ks 67202

LEASE AND WELL NO. Holman #2 COUNTY Sumner STATE Ks. Sec. 33 Twp 308 Rge 1E

Mail Invoice To Co. Name Same Address No. Copies Requested 1

Mail Charts To Co. Name Same Address No. Copies Requested 5

Formation Test No. 2 Interval Tested from 3824 ft. to 3836 ft. Total Depth 3836 ft.

Packer Depth 3819 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 3824 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3828 ft. Recorder Number 5666 Cap. 3950

Bottom Recorder Depth (Outside) 3831 ft. Recorder Number 3854 Cap. 420

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor R-W #3 Drill Collar Length 436 I. D. 2 1/4 in.

Mud Type Chem Viscosity 39 Weight Pipe Length I. D. in.

Weight 9.3 Water Loss 10.2 cc. Drill Pipe Length 3588 I. D. 3.8 in.

Chlorides 5200 P.P.M. Test Tool Length 20 ft. Tool Size 4 1/2 in.

Jars: Make Serial Number Anchor Length 12 ft. Size 4 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 1/8 in. Tool Joint Size 4 1/2 x 11 in.

Blow: Weak Blow for 15 Min

Recovered 10 ft. of Drill Mud

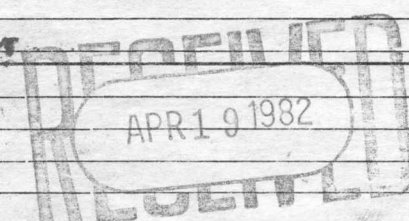
Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:



Time On Location 1:00 A.M. Time Pick Up Tool 1:50 P.M. Time Off Location 5:00 P.M.

Time Set Packer(s) 3:30 P.M. Time Started Off Bottom 5:30 P.M. Maximum Temperature 120

Initial Hydrostatic Pressure (A) 1875 P.S.I.

Initial Flow Period Minutes 30 (B) 50 P.S.I. to (C) 40 P.S.I.

Initial Closed In Period Minutes 30 (D) 1445 P.S.I.

Final Flow Period Minutes 30 (E) 50 P.S.I. to (F) 50 P.S.I.

Final Closed In Period Minutes 30 (G) 1745 P.S.I.

Final Hydrostatic Pressure (H) 1855 P.S.I.

#5666

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 Mike Engelbrecht Signature of Customer or his authorized representative

Western Representative Allen Edgington

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test \$600, Misrun \$, Straddle Test \$, Jars \$, Selective Zone \$, Safety Joint \$, Standby \$, Evaluation \$, Extra Packer \$, Circ. Sub. \$, Fluid Sampler \$, Extra Charts \$, Insurance \$, TOTAL \$600.

WESTERN TESTING CO., INC.

Pressure Data

Date: 4-16-82 Test Ticket No. 13147  
 Recorder No. 5666 Capacity 3950 Location 3828 Ft  
 Clock No. --- Elevation 1214 K.B Well Temperature 120 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1871</u>	P.S.I.	<u>3:30 AM</u>	
B First Initial Flow Pressure	<u>38</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>38</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1442</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>46</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
F Second Final Flow Pressure	<u>46</u>	P.S.I.		
G Final Closed-in Pressure	<u>1444</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1839</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>10</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 0	<u>38</u>	0	<u>38</u>	0	<u>46</u>	0	<u>46</u>
P 2 5		3	<u>109</u>	5		3	<u>369</u>
P 3 10		6	<u>955</u>	10		6	<u>1127</u>
P 4 15		9	<u>1247</u>	15		9	<u>1285</u>
P 5 20		12	<u>1329</u>	20		12	<u>1345</u>
P 6 25		15	<u>1368</u>	25		15	<u>1380</u>
P 7 30	<u>38</u>	18	<u>1394</u>	30	<u>46</u>	18	<u>1404</u>
P 8 35		21	<u>1412</u>	<del>35</del>		21	<u>1419</u>
P 9 40		24	<u>1426</u>	<del>40</del>		24	<u>1430</u>
P10 45		27	<u>1435</u>	<del>45</del>		27	<u>1440</u>
P11 50		30	<u>1442</u>	<del>50</del>		30	<u>1444</u>
P12 55		<del>33</del>		<del>55</del>		<del>33</del>	
P13 60		36		<del>60</del>		36	
P14		39		<del>65</del>		39	
P15		42		<del>70</del>		42	
P16		45		<del>75</del>		45	
P17		48		<del>80</del>		48	
P18		51		<del>85</del>		51	
P19		54		<del>90</del>		54	
P20		57				57	
		60				60	

Company Rains & Williamson Oil Co., Inc. Lease & Well No. Holman #2  
 Elevation 1214 Kelly Bushing Simpson Sand Formation Simpson Sand Effective Pay - Ft. Ticket No. 13147  
 Date 4/16/82 Sec. 33 Twp. 30S Range 1E County Sumner State Kansas  
 Test Approved by Mike Engelbrecht Western Representative Allen Edgington

Formation Test No. 2 Interval Tested from 3824 ft. to 3836 ft. Total Depth 3836 ft.  
 Packer Depth 3819 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Packer Depth 3824 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3828 ft. Recorder Number 5666 Cap. 3950  
 Bottom Recorder Depth (Outside) 3831 ft. Recorder Number 3354 Cap. 420  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Rains & Williamson Rig #3 Drill Collar Length 436 I. D. 2 1/4 in.  
 Mud Type Chemical Viscosity 39 Weight Pipe Length - I. D. - in.  
 Weight 9.3 Water Loss 10.2 cc. Drill Pipe Length 3388 I. D. 3.8 in.  
 Chlorides 5200 P.P.M. Test Tool Length 20 ft. Tool Size 4 1/2 in.  
 Jars: Make - Serial Number - Anchor Length 12 ft. Size 4 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 blow for 15 minutes.

Recovered 10 ft. of drilling mud  
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of    

Remarks:    

Time Set Packer(s) 3:30 A.M. Time Started Off Bottom 5:30 A.M. Maximum Temperature 120  
P.M. P.M.  
 Initial Hydrostatic Pressure 1871 (A)     P.S.I.  
 Initial Flow Period 30 (B) 38 P.S.I. to (C) 38 P.S.I.  
 Initial Closed In Period 30 (D) 1442 P.S.I.  
 Final Flow Period 30 (E) 46 P.S.I. to (F) 46 P.S.I.  
 Final Closed In Period 30 (G) 1444 P.S.I.  
 Final Hydrostatic Pressure 1839 (H)     P.S.I.

# WESTERN TESTING CO., INC.

## Pressure Data

Date 4/16/82 Test Ticket No. 13147  
 Recorder No. 5666 Capacity 3950 Location 3828 Ft.  
 Clock No. - Elevation 1214 Kelly Bushing Well Temperature 120 °F

Point	Pressure			Time Given	Time Computed
A. Initial Hydrostatic Mud	1871	P.S.I.	Open Tool	3:30A	M
B. First Initial Flow Pressure	38	P.S.I.	First Flow Pressure	30	Mins. 30 Mins.
C. First Final Flow Pressure	38	P.S.I.	Initial Closed-in Pressure	30	Mins. 30 Mins.
D. Initial Closed-in Pressure	1442	P.S.I.	Second Flow Pressure	30	Mins. 30 Mins.
E. Second Initial Flow Pressure	46	P.S.I.	Final Closed-in Pressure	30	Mins. 30 Mins.
F. Second Final Flow Pressure	46	P.S.I.			
G. Final Closed-in Pressure	1444	P.S.I.			
H. Final Hydrostatic Mud	1839	P.S.I.			

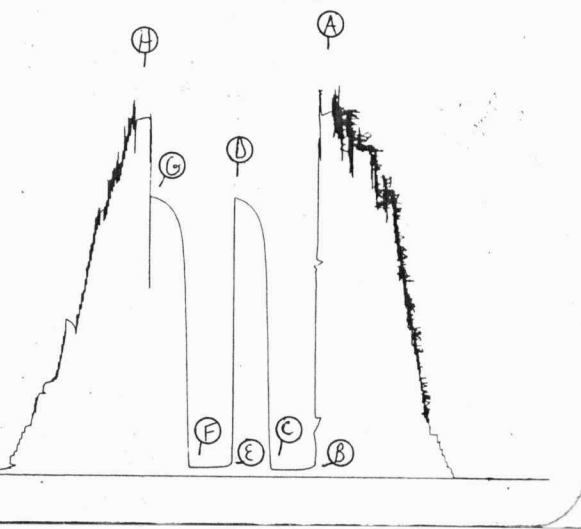
### PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure	Point Minutes	Initial Shut-In	Point Minutes	Second Flow Pressure	Point Minutes	Final Shut-In
	Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press.	Press.	Press.	Press.	Press.	Press.	Press.
P 1 0	38	0	38	0	46	0	46
P 2 5	38	3	109	5	46	3	369
P 3 10	38	6	955	10	46	6	1127
P 4 15	38	9	1247	15	46	9	1285
P 5 20	38	12	1329	20	46	12	1345
P 6 25	38	15	1368	25	46	15	1380
P 7 30	38	18	1394	30	46	18	1404
P 8		21	1412			21	1419
P 9		24	1426			24	1430
P10		27	1435			27	1440
P11		30	1442			30	1444
P12							
P13							
P14							
P15							
P16							
P17							
P18							
P19							
P20							

TKT # 13147

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WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 13148

OK

P. O. BOX 1599 WICHITA, KANSAS 67201

Elevation 1214KB Formation Simpson Id Eff. Pay Ft.

District Augusta Date 4-16-82 Customer Order No.

COMPANY NAME Rains & Williamson Oil Co, Inc

ADDRESS 435 Page Ct 220 W. Douglas Wichita KS. 67202

LEASE AND WELL NO. Holman # 2 COUNTY Sumner STATE KS Sec. 33 Twp 30S Rge 1E

Mail Invoice To Same Co. Name Address No. Copies Requested 1

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 3 Interval Tested from 3822 ft. to 3839 ft. Total Depth 3839 ft.

Packer Depth 3817 ft. Size 6 3/4 in. Packer Depth - ft. Size in.

Packer Depth 3822 ft. Size 6 3/4 in. Packer Depth - ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3831 ft. Recorder Number 5666 Cap. 3950

Bottom Recorder Depth (Outside) 3834 ft. Recorder Number 3354 Cap. 4200

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor R-W #5 Drill Collar Length 436 I. D. 2 1/4 in.

Mud Type Chem Viscosity 42 Weight Pipe Length I. D. in.

Weight 9.3 Water Loss 13.4 cc. Drill Pipe Length 3388 I. D. 3.8 in.

Chlorides 7500 P.P.M. Test Tool Length 22 ft. Tool Size 1 1/2 in.

Jars: Make Serial Number Anchor Length 17 ft. Size 4 1/2 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 X # in.

Blow: Strong flow thru out throughout the test.

Recovered 1360 ft. of Salt water 36,000ppm Chlorides

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time On Location DST #1 A.M. P.M. Time Pick Up Tool 2:05 P.M. Time Off Location 10:30 P.M.

Time Set Packer(s) 4:00 A.M. P.M. Time Started Off Bottom 7:00 P.M. Maximum Temperature 120

Initial Hydrostatic Pressure (A) 1865 P.S.I.

Initial Flow Period Minutes 30 (B) 70 P.S.I. to (C) 295 P.S.I.

Initial Closed In Period Minutes 30 (D) 1455 P.S.I.

Final Flow Period Minutes 60 (E) 345 P.S.I. to (F) 610 P.S.I.

Final Closed In Period Minutes 60 (G) 1455 P.S.I.

Final Hydrostatic Pressure (H) 1835 P.S.I.

#5666

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 Mike Engellnecht Signature of Customer or his authorized representative

Western Representative Allen Edgington

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes Open Hole Test \$600.00, Misc. \$35.00, TOTAL \$635.00.

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 4-16 Test Ticket No. 13148  
 Recorder No. 5666 Capacity 3950 Location 3831  
 Clock No. --- Elevation 1214 KB Well Temperature 120

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1865</u>	P.S.I.	<u>4:00 P</u>	<u>M</u>
B First Initial Flow Pressure	<u>65</u>	P.S.I.	<u>30</u>	<u>30</u> Mins.
C First Final Flow Pressure	<u>296</u>	P.S.I.	<u>30</u>	<u>30</u> Mins.
D Initial Closed-in Pressure	<u>1457</u>	P.S.I.	<u>60</u>	<u>65</u> Mins.
E Second Initial Flow Pressure	<u>342</u>	P.S.I.	<u>60</u>	<u>60</u> Mins.
F Second Final Flow Pressure	<u>610</u>	P.S.I.		
G Final Closed-in Pressure	<u>1456</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1835</u>	P.S.I.		

**PRESSURE BREAKDOWN**

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>10</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>13</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a 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>65</u>	<u>0</u>	<u>296</u>	<u>0</u>	<u>342</u>	<u>0</u>	<u>610</u>
P 2	<u>5</u>	<u>3</u>	<u>84</u>	<u>3</u>	<u>1432</u>	<u>5</u>	<u>342</u>	<u>3</u>	<u>1432</u>
P 3	<u>10</u>	<u>6</u>	<u>153</u>	<u>6</u>	<u>1446</u>	<u>10</u>	<u>357</u>	<u>6</u>	<u>1444</u>
P 4	<u>15</u>	<u>9</u>	<u>204</u>	<u>9</u>	<u>1451</u>	<u>15</u>	<u>380</u>	<u>9</u>	<u>1450</u>
P 5	<u>20</u>	<u>12</u>	<u>235</u>	<u>12</u>	<u>1453</u>	<u>20</u>	<u>404</u>	<u>12</u>	<u>1452</u>
P 6	<u>25</u>	<u>15</u>	<u>261</u>	<u>15</u>	<u>1454</u>	<u>25</u>	<u>427</u>	<u>15</u>	<u>1453</u>
P 7	<u>30</u>	<u>18</u>	<u>296</u>	<u>18</u>	<u>1455</u>	<u>30</u>	<u>449</u>	<u>18</u>	<u>1454</u>
P 8	<u>35</u>	<u>21</u>		<u>21</u>	<u>1456</u>	<u>35</u>	<u>476</u>	<u>21</u>	<u>1455</u>
P 9	<u>40</u>	<u>24</u>		<u>24</u>	<u>1457</u>	<u>40</u>	<u>502</u>	<u>24</u>	<u>1456</u>
P 10	<u>45</u>	<u>27</u>		<u>27</u>	<u>1457</u>	<u>45</u>	<u>526</u>	<u>27</u>	<u>1456</u>
P 11	<u>50</u>	<u>30</u>		<u>30</u>	<u>1457</u>	<u>50</u>	<u>546</u>	<u>30</u>	<u>1456</u>
P 12	<u>55</u>	<u>33</u>		<u>33</u>		<u>55</u>	<u>566</u>	<u>33</u>	
P 13	<u>60</u>	<u>36</u>		<u>36</u>		<u>60</u>	<u>590</u>	<u>36</u>	
P 14		<u>39</u>		<u>39</u>		<u>65</u>	<u>610</u>	<u>39</u>	
P 15		<u>42</u>		<u>42</u>		<u>70</u>		<u>42</u>	
P 16		<u>45</u>		<u>45</u>		<u>75</u>		<u>45</u>	
P 17		<u>48</u>		<u>48</u>		<u>80</u>		<u>48</u>	
P 18		<u>51</u>		<u>51</u>		<u>85</u>		<u>51</u>	
P 19		<u>54</u>		<u>54</u>		<u>90</u>		<u>54</u>	
P 20		<u>57</u>		<u>57</u>				<u>57</u>	
		<u>60</u>		<u>60</u>				<u>60</u>	<u>1456</u>

Company Rains & Williamson Oil Company, Inc. Lease & Well No. Holman #2  
 Elevation 1214 Kelly Bushing Formation Simpson Sand Effective Pay - Ft. Ticket No. 13148  
 Date 4/16/82 Sec. 33 Twp. 30S Range 1E County Sumner State Kansas  
 Test Approved by Mike Engelbrecht Western Representative Allen Edgington

Formation Test No. 3 Interval Tested from 3822 ft. to 3839 ft. Total Depth 3839 ft.  
 Packer Depth 3817 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Packer Depth 3822 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.  
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3831 ft. Recorder Number 5666 Cap. 3950  
 Bottom Recorder Depth (Outside) 3834 ft. Recorder Number 3354 Cap. 4200  
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Rains & Williamson DRlg. Rig #3 Drill Collar Length 436 I. D. 2 1/4 in.  
 Mud Type chemical Viscosity 42 Weight Pipe Length - I. D. - in.  
 Weight 9.3 Water Loss 13.4 cc. Drill Pipe Length 3388 I. D. 3.8 in.  
 Chlorides 7,500 P.P.M. Test Tool Length 22 ft. Tool Size 4 1/2 in.  
 Jars: Make - Serial Number - Anchor Length 17 ft. Size 4 1/2 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 XH in.

Blow: Strong blow throughout test.

Recovered 1360 ft. of salt water Chlorides 36,000 ppm  
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of      
 Recovered     ft. of    

Remarks:    

Time Set Packer(s) 4:00 ~~A.M.~~ P.M. Time Started Off Bottom 7:00 ~~A.M.~~ P.M. Maximum Temperature 120°  
 Initial Hydrostatic Pressure     (A) 1865 P.S.I.  
 Initial Flow Period     Minutes 30 (B) 65 P.S.I. to (C) 296 P.S.I.  
 Initial Closed In Period     Minutes 30 (D) 1457 P.S.I.  
 Final Flow Period     Minutes 65 (E) 342 P.S.I. to (F) 610 P.S.I.  
 Final Closed In Period     Minutes 60 (G) 1456 P.S.I.  
 Final Hydrostatic Pressure     (H) 1835 P.S.I.

# WESTERN TESTING CO., INC.

## Pressure Data

Date 4/16/82 Test Ticket No. 13148  
 Recorder No. 5666 Capacity 3950 Location 3831 Ft.  
 Clock No. --- Elevation 1214 Kelly Bushing Well Temperature 120 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1865	P.S.I.	4:00P	M
B First Initial Flow Pressure	65	P.S.I.	30	30 Mins.
C First Final Flow Pressure	296	P.S.I.	30	30 Mins.
D Initial Closed-in Pressure	1457	P.S.I.	60	65 Mins.
E Second Initial Flow Pressure	342	P.S.I.	60	60 Mins.
F Second Final Flow Pressure	610	P.S.I.		
G Final Closed-in Pressure	1456	P.S.I.		
H Final Hydrostatic Mud	1835	P.S.I.		

### PRESSURE BREAKDOWN

**First Flow Pressure**  
 Breakdown: 6 Inc.  
 of 5 mins. and a  
 final inc. of 0 Min.

**Initial Shut-In**  
 Breakdown: 10 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: 20 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	65	0	296	0	610	
P 2	5	84	3	1432	5	1432	
P 3	10	153	6	1446	10	1444	
P 4	15	204	9	1451	15	1450	
P 5	20	235	12	1453	20	1452	
P 6	25	261	15	1454	25	1453	
P 7	30	296	18	1455	30	1454	
P 8			21	1456	35	1455	
P 9			24	1457	40	1456	
P10			27	1457	45	1456	
P11			30	1457	50	1456	
P12					55	1456	
P13					60	1456	
P14					65	1456	
P15						1456	
P16						1456	
P17						1456	
P18						1456	
P19						1456	
P20						1456	

TKT 13148

PST#3

JK #13148

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