



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 5545

P. O. BOX 1599 WICHITA, KANSAS 67201 PHONE (316) 838-0601

Elevation 1766 Gd Formation Cherokee Eff. Pay Ft.

District Great Bend Date 5-11-80 Customer Order No.

COMPANY NAME Rains & Williamson Oil Co, Inc

ADDRESS 435 Page Court Bldg - 220 West Douglas Wichita KS 67202

LEASE AND WELL NO Tuttle "A" #1 COUNTY Comanche STATE KS Sec 6 Twp 35S Rge 20W

Mail Invoice To same Tuttle "A" #1 Co. Name Address No. Copies Requested 5

Mail Charts To same Address No. Copies Requested 5

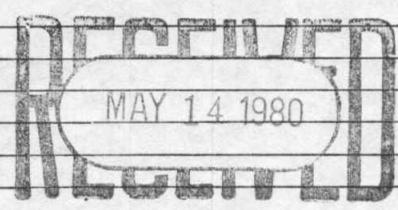
Formation Test No. 1 Interval Tested from 5254 ft. to 5335 ft. Total Depth 5335 ft. Packer Depth 5254 ft. Size 6 3/4 in. Packer Depth 5254 ft. Size 6 3/4 in.

Top Recorder Depth (Inside) 5268 ft. Recorder Number 2403 Cap. 4400 Bottom Recorder Depth (Outside) 5265 ft. Recorder Number 1051 Cap. 4250

Drilling Contractor Rains & Williamson Rig #2 Mud Type DMSpac Viscosity 45 Weight 9.14 Water Loss 14.4 cc. Chlorides 20,000 P.P.M. Jars: Make Western Serial Number 407

Blow: 1/2 inch blow slowly increasing to 3 inches in bucket first opening steady blow (3 inches in bucket) second opening

Recovered 40 ft. of mud (no water) Recovered ft. of Recovered ft. of Recovered ft. of Recovered ft. of Remarks:



ON LOC AT 7:15 P.M. PICK UP TOOL AT 8:00 P.M. - LEAVE LOC @ 7:00 A.M.

Table with columns: Time Set, Packer(s), P.M., Time Started Off Bottom, A.M., Maximum Temperature. Rows include Initial Hydrostatic Pressure, Initial Flow Period, Initial Closed In Period, Final Flow Period, Final Closed In Period, Final Hydrostatic Pressure.

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.

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 Alex D. Tracy Signature of Customer or his authorized representative

Western Representative Roger Lisenby Thank you

FIELD INVOICE

Table with columns: Item, Price. Rows include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, TOTAL.

No Discount

WESTERN TESTING CO., INC.

Pressure Data

Date 5-11-80 Test Ticket No. 5545
 Recorder No. 2603 Capacity 4400 Location 5335 Ft.
 Clock No. _____ Elevation 1766 Well Temperature 128 °F

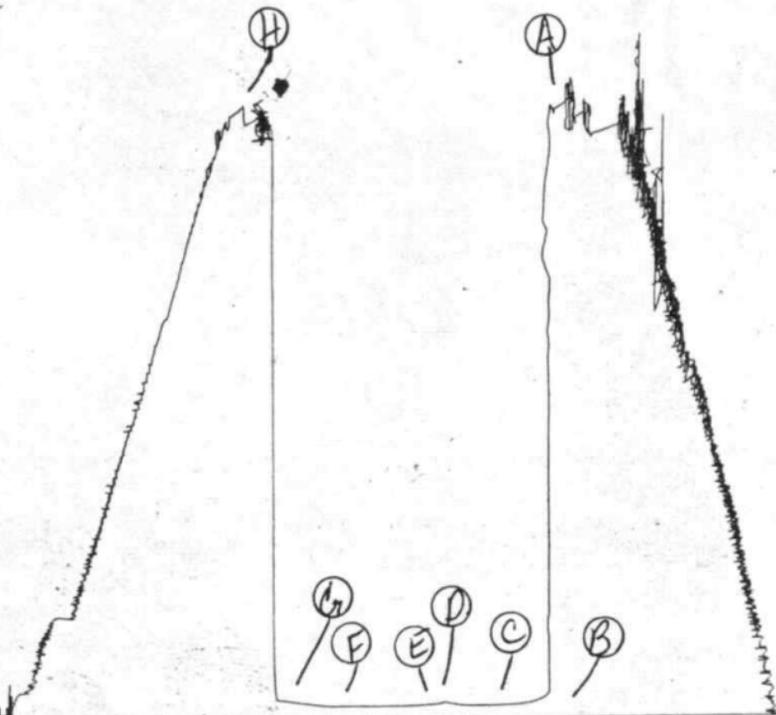
Point	Pressure	P.S.I.	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2686</u>	P.S.I.		<u>11:12 P</u>	M
B First Initial Flow Pressure	<u>87</u>	P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>56</u>	P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>71</u>	P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>64</u>	P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>36</u> Mins.
F Second Final Flow Pressure	<u>51</u>	P.S.I.			
G Final Closed-in Pressure	<u>79</u>	P.S.I.			
H Final Hydrostatic Mud	<u>2659</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>9</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 0	<u>87</u>	0	<u>56</u>	0	<u>64</u>	0	<u>51</u>
P 2 5	<u>80</u>	3	↑	5	<u>60</u>	3	<u>51</u>
P 3 10	<u>69</u>	6	↑	10	<u>56</u>	6	<u>51</u>
P 4 15	<u>62</u>	9	↑	15	<u>53</u>	9	<u>51</u>
P 5 20	<u>58</u>	12	↓	20	<u>51</u>	12	<u>57</u>
P 6 25	<u>56</u>	15	↓	25	↓	15	<u>59</u>
P 7 30	<u>56</u>	18	<u>56</u>	30	↑	18	<u>62</u>
P 8 35		21	<u>58</u>	35	↑	21	<u>64</u>
P 9 40		24	<u>67</u>	40	↑	24	<u>67</u>
P 10 45		27	<u>71</u>	45	↑	27	<u>70</u>
P 11 50		30		50	↓	30	<u>72</u>
P 12 55		33		55	↓	<u>33 33</u>	<u>74</u>
P 13 60		36		60	<u>51</u>	<u>36 36</u>	<u>79</u>
P 14		39		65		<u>39</u>	
P 15		42		70		42	
P 16		45		75		45	
P 17		48		80		48	
P 18		51		85		51	
P 19		54		90		54	
P 20		57				57	
		60				60	

TKT# 5545

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1007

Company Rains & Williamson Oil Co., Inc. Lease & Well No. Tuttle "A" #1
 Elevation 1766 Ground Level Formation Cherokee Effective Pay -- Ft. Ticket No. 5545
 Date 5/11/80 Sec. 6 Twp. 35S Range 20W County Comanche State Kansas
 Test Approved by Glenn Tracy Western Representative Roger Lisenby

Formation Test No. 1 Interval Tested from 5254 ft. to 5335 ft. Total Depth 5335 ft.
 Packer Depth 5254 ft. Size 6 3/4 in. Packer Depth 5254 ft. Size 6 3/4 in.
 Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 5268 ft. Recorder Number 2603 Cap. 4400
 Bottom Recorder Depth (Outside) 5265 ft. Recorder Number 1051 Cap. 4250
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Rains & Williamson Rig #2 Drill Collar Length 214 I. D. 2 1/4 in.
 Mud Type drispac Viscosity 45 Weight Pipe Length - I. D. - in.
 Weight 9.4 Water Loss 14.4 cc. Drill Pipe Length 5011 I. D. 3.8 in.
 Chlorides 20,000 P.P.M. Test Tool Length 29 ft. Tool Size 4 3/4 in.
 Jars: Make WTC Serial Number 407 Anchor Length 81 ft. Size 5 1/2 with 1-std. Drill Collars
 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: One half inch blow slowly increasing to three inches in bucket first opening
Steady blow (three inches in bucket) second opening.

Recovered 40 ft. of mud (no water)
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s)	<u>11:12</u> A.M. P.M.	Time Started Off Bottom	<u>1:43</u> A.M. P.M.	Maximum Temperature	<u>128°</u>
Initial Hydrostatic Pressure	(A)	<u>2686</u>	P.S.I.		
Initial Flow Period	Minutes	<u>30</u>	(B)	<u>87</u>	P.S.I. to (C) <u>56</u> P.S.I.
Initial Closed In Period	Minutes	<u>27</u>	(D)	<u>71</u>	P.S.I.
Final Flow Period	Minutes	<u>60</u>	(E)	<u>64</u>	P.S.I. to (F) <u>51</u> P.S.I.
Final Closed In Period	Minutes	<u>36</u>	(G)	<u>79</u>	P.S.I.
Final Hydrostatic Pressure	(H)	<u>2659</u>	P.S.I.		

WESTERN TESTING CO., INC.
Pressure Data

Date 5/11/80

Test Ticket No. 5545

Recorder No. 2603

Capacity 4400

Location 5335 Ft.

Clock No. ----

Elevation 1766 Ground Level

Well Temperature 128 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2686</u> P.S.I.	Open Tool	<u>11:12</u> P _M	
B First Initial Flow Pressure	<u>87</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>56</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>71</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>64</u> P.S.I.	Final Closed-in Pressure	<u>30</u> Mins.	<u>36</u> Mins.
F Second Final Flow Pressure	<u>51</u> P.S.I.			
G Final Closed-in Pressure	<u>79</u> P.S.I.			
H Final Hydrostatic Mud	<u>2659</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: 9 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 <u>0</u>	<u>87</u>	<u>0</u>	<u>56</u>	<u>0</u>	<u>64</u>	<u>0</u>	<u>51</u>
P 2 <u>5</u>	<u>80</u>	<u>3</u>	<u>56</u>	<u>5</u>	<u>60</u>	<u>3</u>	<u>51</u>
P 3 <u>10</u>	<u>69</u>	<u>6</u>	<u>56</u>	<u>10</u>	<u>56</u>	<u>6</u>	<u>51</u>
P 4 <u>15</u>	<u>62</u>	<u>9</u>	<u>56</u>	<u>15</u>	<u>53</u>	<u>9</u>	<u>51</u>
P 5 <u>20</u>	<u>58</u>	<u>12</u>	<u>56</u>	<u>20</u>	<u>51</u>	<u>12</u>	<u>57</u>
P 6 <u>25</u>	<u>56</u>	<u>15</u>	<u>56</u>	<u>25</u>	<u>51</u>	<u>15</u>	<u>59</u>
P 7 <u>30</u>	<u>56</u>	<u>18</u>	<u>56</u>	<u>30</u>	<u>51</u>	<u>18</u>	<u>62</u>
P 8		<u>21</u>	<u>58</u>	<u>35</u>	<u>51</u>	<u>21</u>	<u>64</u>
P 9		<u>24</u>	<u>67</u>	<u>40</u>	<u>51</u>	<u>24</u>	<u>67</u>
P10		<u>27</u>	<u>71</u>	<u>45</u>	<u>51</u>	<u>27</u>	<u>70</u>
P11				<u>50</u>	<u>51</u>	<u>30</u>	<u>72</u>
P12				<u>55</u>	<u>51</u>	<u>33</u>	<u>74</u>
P13				<u>60</u>	<u>51</u>	<u>36</u>	<u>79</u>
P14							
P15							
P16							
P17							
P18							
P19							
P20							



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 2845

P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

Elevation 1766 GL Formation Marrow Sand Eff. Pay Ft.

District Pratt Date 5-13-80 Customer Order No.

COMPANY NAME Rains + Williams Oil Co. Inc.

ADDRESS 435 Page Court Building 220 W. Douglas Wichita KS

LEASE AND WELL NO. Tuttle "A" #1 COUNTY Comanche STATE KS Sec. 6 Twp 35s Rge 20w

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

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 2 Interval Tested from 5418 ft. to 5492 ft. Total Depth 5492 ft.

Packer Depth 5413 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 5418 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 5421 ft. Recorder Number 1566 Cap. 4300

Bottom Recorder Depth (Outside) 5424 ft. Recorder Number 3086 Cap. 4500

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Rains + Williams Oil Co. Drill Collar Length 248 I. D. 2.2 in.

Mud Type Drispac Viscosity 87 Weight Pipe Length I. D. in.

Weight 9.2 Water Loss 24 cc. Drill Pipe Length 5141 I. D. 3.8 in.

Chlorides 23,000 P.P.M. Test Tool Length 29 in. Tool Size 5 1/2 OD in.

Jars: Make WTC Serial Number 405 Anchor Length 43 ft. Size 5 1/2 OD in.

Did Well Flow? NO Reversed Out NO Surface Choke Size 3 1/4 in. Bottom Choke Size 3/4 in.

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

Blow: Strong - GTS 5 min into Second Flow - See GGS

Flow Report

Recovered 278 ft. of Drilling Mud Chlorides 26,000 ppm

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: 4 hrs. To get to bottom on location 12:30 PM off 8:00 AM

Time Set Packer(s) 11:40 A.M. P.M. Time Started Off Bottom 2:25 A.M. P.M. Maximum Temperature 133

Initial Hydrostatic Pressure (A) 2745 P.S.I.

Initial Flow Period Minutes 30 (B) 64 P.S.I. to (C) 64 P.S.I.

Initial Closed In Period Minutes 45 (D) 1431 P.S.I.

Final Flow Period Minutes 60 (E) 97 P.S.I. to (F) 97 P.S.I.

Final Closed In Period Minutes 60 (G) 1852 P.S.I.

Final Hydrostatic Pressure (H) 2679 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

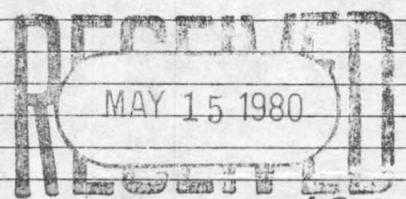
All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By [Signature] Signature of Customer or his authorized representative

Western Representative [Signature] Thank you.

FIELD INVOICE

Open Hole Test	\$ 650.00
Misrun	\$
Straddle Test	\$
Jars	\$ 300.00
Selective Zone	\$
Safety Joint	\$ 50.00
Standby 6 hrs	\$ 108.00
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage 100 x 75¢	\$ 75.00
Extra Charts	\$
TOTAL	\$ 1183.00



No. [unclear]

WESTERN TESTING CO., INC.

Pressure Data

Date 5-15-80 Test Ticket No. 2845
 Recorder No. 1566 Capacity 4300 Location 5421 Ft.
 Clock No. _____ Elevation 1766 22 Well Temperature 133 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2752</u>	P.S.I.	<u>11:40 P</u>	M
B First Initial Flow Pressure	<u>65</u>	P.S.I.	<u>30</u>	Mins. <u>30</u> Mins.
C First Final Flow Pressure	<u>99</u>	P.S.I.	<u>45</u>	Mins. <u>39</u> Mins.
D Initial Closed-in Pressure	<u>1436</u>	P.S.I.	<u>60</u>	Mins. <u>60</u> Mins.
E Second Initial Flow Pressure	<u>93</u>	P.S.I.	<u>60</u>	Mins. <u>57</u> Mins.
F Second Final Flow Pressure	<u>86</u>	P.S.I.		
G Final Closed-in Pressure	<u>1852</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2688</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: 13 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

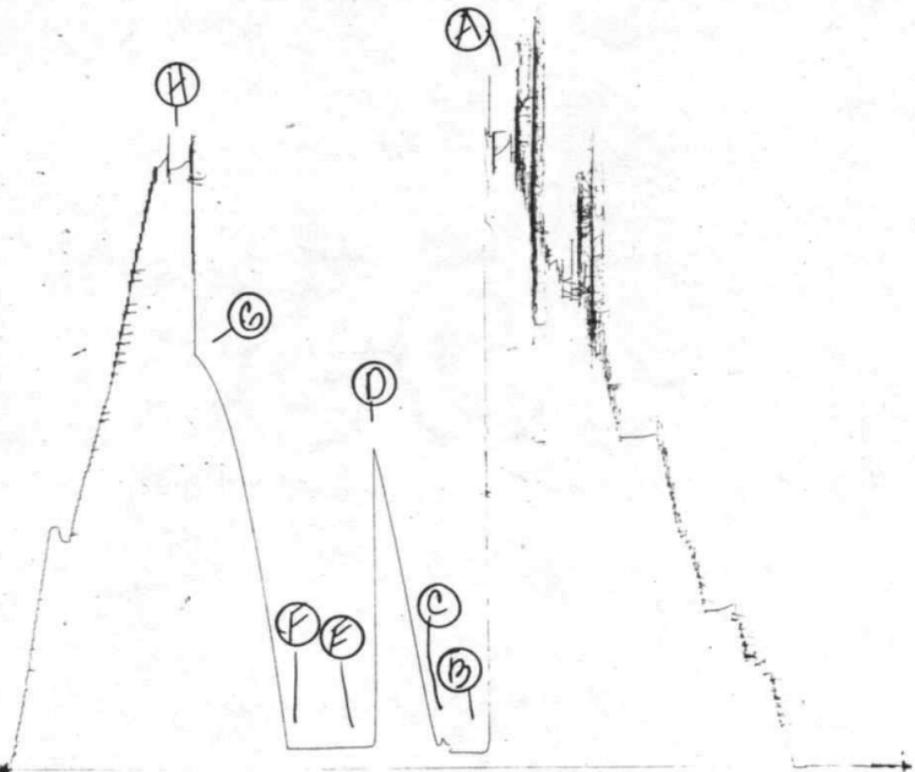
Second Flow Pressure
 Breakdown: 12 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 19 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	<u>65</u>	0	<u>99</u>	0	<u>93</u>	0	<u>86</u>
P 2	<u>65</u>	3	<u>186</u>	5	<u>92</u>	3	<u>266</u>
P 3	<u>67</u>	6	<u>292</u>	10	<u>91</u>	6	<u>415</u>
P 4	<u>67</u>	9	<u>415</u>	15	<u>90</u>	9	<u>556</u>
P 5	<u>67</u>	12	<u>536</u>	20	<u>89</u>	12	<u>688</u>
P 6	<u>102</u>	15	<u>643</u>	25	<u>88</u>	15	<u>822</u>
P 7	<u>99</u>	18	<u>761</u>	30	<u>86</u>	18	<u>955</u>
P 8		21	<u>869</u>	35		21	<u>1071</u>
P 9		24	<u>979</u>	40		24	<u>1184</u>
P 10		27	<u>1088</u>	45		27	<u>1296</u>
P 11		30	<u>1193</u>	50		30	<u>1399</u>
P 12		33	<u>1289</u>	55		33	<u>1489</u>
P 13		36	<u>1371</u>	60	<u>86</u>	36	<u>1565</u>
P 14		39	<u>1436</u>	65		39	<u>1636</u>
P 15		42		70		42	<u>1697</u>
P 16		45		75		45	<u>1742</u>
P 17		48		80		48	<u>1785</u>
P 18		51		85		51	<u>1803</u> 1818
P 19		54		90		54	<u>1818</u>
P 20		57				57	<u>1852</u>
		60				60	

1566
DST #2

TR #2845
I



Company Rains & Williamson Oil Co., Inc. Lease & Well No. Tuttle "A" #1
 Elevation 1766 Ground Level Formation Morrow Sand Effective Pay - Ft. Ticket No. 2845
 Date 5-13-80 Sec. 6 Twp. 36S Range 20W County Commanche State Kansas
 Test Approved by Glenn A. Tracy Western Representative Jeff Piotrowski

Formation Test No. 2 Interval Tested from 5418 ft. to 5492 ft. Total Depth 5492 ft.
 Packer Depth 5413 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 5418 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 5421 ft. Recorder Number 1566 Cap. 4300
 Bottom Recorder Depth (Outside) 5424 ft. Recorder Number 3086 Cap. 4500
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Rains & Williamson Oil Co. Drill Collar Length 248 I. D. 2.2 in.
 Mud Type Drispac Viscosity 37 Weight Pipe Length - I. D. - in.
 Weight 9.2 Water Loss 24 cc. Drill Pipe Length 5141 I. D. 3.8 in.
 Chlorides 23,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.
 Jars: Make W.T.C. Serial Number 405 Anchor Length 43 ft. Size 5 1/2 OD in.
 Did Well Flow? No Reversed Out - Drill Collar 3/4 31'
 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 5 minutes. See attached sheet for gas measurements.

Recovered 278 ft. of drilling mud Chlorides: 26,000 PPM
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 11:40 ~~A.M.~~ P.M. Time Started Off Bottom 2:25 ~~A.M.~~ P.M. Maximum Temperature 133
 Initial Hydrostatic Pressure (A) 2752 P.S.I.
 Initial Flow Period Minutes 30 (B) 65 P.S.I. to (C) 99 P.S.I.
 Initial Closed In Period Minutes 39 (D) 1436 P.S.I.
 Final Flow Period Minutes 60 (E) 93 P.S.I. to (F) 86 P.S.I.
 Final Closed In Period Minutes 57 (G) 1852 P.S.I.
 Final Hydrostatic Pressure (H) 2688 P.S.I.

GAS FLOW REPORT

Date 5-13-80 Ticket 2845 Company Rains & Williamson Oil Co, Inc.
 Well Name and No. Tuttle "A" #1 Dst No. 2 Interval Tested 5418' - 5492'
 County Commanche State Kansas Sec. 6 Twp. 35S Rg. 20W

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

SECOND FLOW						
Gas to surface in 5 minutes.						
	10 min.	10" of water	1/2" orifice			19,900 C.F.P.D.
	20 min.	16" of water	1/2" orifice			25,100 C.F.P.D.
	30 min.	19" of water	1/2" orifice			27,300 C.F.P.D.
	40 min.	24" of water	1/2" orifice			30,700 C.F.P.D.
	50 min.	24" of water	1/2" orifice			30,700 C.F.P.D.
	55 min.	28" of water	1/2" orifice			33,200 C.F.P.D.

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 1 1/2% 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 Rains & Williamson Oil Co., Inc.
 Authorized by Glenn A. Tracy

WESTERN TESTING CO., INC.
Pressure Data

Date 5-15-80 Test Ticket No. 2845
 Recorder No. 1566 Capacity 4300 Location 5421 Ft.
 Clock No. --- Elevation 1766 Ground Level Well Temperature 133 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2752</u> P.S.I.	Open Tool	<u>11:40</u> P. M.	
B First Initial Flow Pressure	<u>65</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>99</u> P.S.I.	Initial Closed-in Pressure	<u>45</u> Mins.	<u>39</u> Mins.
D Initial Closed-in Pressure	<u>1436</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>93</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>57</u> Mins.
F Second Final Flow Pressure	<u>86</u> P.S.I.			
G Final Closed-in Pressure	<u>1852</u> P.S.I.			
H Final Hydrostatic Mud	<u>2688</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>13</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>19</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>65</u>	<u>0</u>	<u>99</u>	<u>0</u>	<u>93</u>	<u>0</u>	<u>86</u>
P 2 <u>5</u>	<u>65</u>	<u>3</u>	<u>186</u>	<u>5</u>	<u>92</u>	<u>3</u>	<u>266</u>
P 3 <u>10</u>	<u>67</u>	<u>6</u>	<u>292</u>	<u>10</u>	<u>91</u>	<u>6</u>	<u>415</u>
P 4 <u>15</u>	<u>67</u>	<u>9</u>	<u>415</u>	<u>15</u>	<u>90</u>	<u>9</u>	<u>556</u>
P 5 <u>20</u>	<u>67</u>	<u>12</u>	<u>536</u>	<u>20</u>	<u>89</u>	<u>12</u>	<u>688</u>
P 6 <u>25</u>	<u>102</u>	<u>15</u>	<u>643</u>	<u>25</u>	<u>88</u>	<u>15</u>	<u>822</u>
P 7 <u>30</u>	<u>99</u>	<u>18</u>	<u>761</u>	<u>30</u>	<u>86</u>	<u>18</u>	<u>955</u>
P 8		<u>21</u>	<u>689</u>	<u>35</u>	<u>86</u>	<u>21</u>	<u>1071</u>
P 9		<u>24</u>	<u>979</u>	<u>40</u>	<u>86</u>	<u>24</u>	<u>1184</u>
P10		<u>27</u>	<u>1088</u>	<u>45</u>	<u>86</u>	<u>27</u>	<u>1296</u>
P11		<u>30</u>	<u>1193</u>	<u>50</u>	<u>86</u>	<u>30</u>	<u>1399</u>
P12		<u>33</u>	<u>1289</u>	<u>55</u>	<u>86</u>	<u>33</u>	<u>1489</u>
P13		<u>36</u>	<u>1371</u>	<u>60</u>	<u>86</u>	<u>36</u>	<u>1565</u>
P14		<u>39</u>	<u>1436</u>			<u>39</u>	<u>1636</u>
P15						<u>42</u>	<u>1697</u>
P16						<u>45</u>	<u>1742</u>
P17						<u>48</u>	<u>1785</u>
P18						<u>51</u>	<u>1803</u>
P19						<u>54</u>	<u>1818</u>
P20						<u>57</u>	<u>1852</u>



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET NO 5785

P. O. BOX 1599 WICHITA, KANSAS 67201 PHONE (316) 838-0601

Elevation 1766 G.L. Formation Eff. Pay Ft.

District Pratt Date 5/15/80 Customer Order No.

COMPANY NAME Rains & Williamson Oil Co. Inc.

ADDRESS 435 Page Court 220 W Douglas

LEASE AND WELL NO Tuttle #1-A COUNTY Comanche STATE KS Sec. 6 Twp 35 Rge 20W

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

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

Formation Test No. 3 Interval Tested from 5492 ft. to 5520 ft. Total Depth 5520 ft.

Packer Depth 5487 ft. Size 6 3/4 in. Packer Depth = ft. Size = in.

Packer Depth 5492 ft. Size 6 3/4 in. Packer Depth = ft. Size = in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 5510 ft. Recorder Number 2607 Cap. 4150

Bottom Recorder Depth (Outside) 5513 ft. Recorder Number 3351 Cap. 4000

Below Straddle Recorder Depth Recorder Number Cap.

Drilling Contractor Rains & Williams Rig #2 Drill Collar Length 275 I. D. 2 1/2 in.

Mud Type Drispac Viscosity 54 Weight Pipe Length I. D. in.

Weight 9.2 Water Loss 10.4 cc. Drill Pipe Length 5188 I. D. 3.8 in.

Chlorides 28,500 P.P.M. Test Tool Length 29 ft. Tool Size 5500 in.

Jars: Make WTC Serial Number 410 Anchor Length 28 ft. Size 5500 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 45FH in.

Blow: Very Weak blow throughout first flow period

Strong blow throughout second flow period

Recovered 90 ft. of Dnlg Mud

Recovered 1440 ft. of Salt Water (134,000 pp.m)

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Arrived: 8:45 P.M. May 14 Slid tool 10' to bottom

Pick Up Tool: 9:30 P.M. Plugged tool on first flow

Left: 10:00 AM May 15

Time Set Packer(s) 1:10 A.M. P.M. Time Started Off Bottom 4:25 A.M. P.M. Maximum Temperature 133°

Initial Hydrostatic Pressure (A) 2804 P.S.I.

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

Initial Closed In Period Minutes 45 (D) - P.S.I.

Final Flow Period Minutes 60 (E) 211 P.S.I. to (F) 809 P.S.I.

Final Closed In Period Minutes 60 (G) 2046 P.S.I.

Final Hydrostatic Pressure (H) 2783 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

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

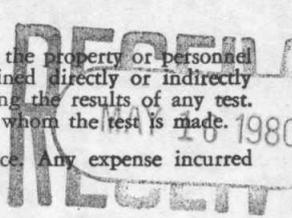
Test Approved By [Signature] Signature of Customer or his authorized representative

Western Representative [Signature] Western Representative

FIELD INVOICE

Open Hole Test \$ 650.00
Misrun \$
Straddle Test \$
Jars \$ 300.00
Selective Zone \$
Safety Joint \$ 50.00
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub \$
Mileage \$ 90.00
Fluid Sampler \$
Extra Charts \$

TOTAL \$ 1090.00



WESTERN TESTING CO., INC.
Pressure Data

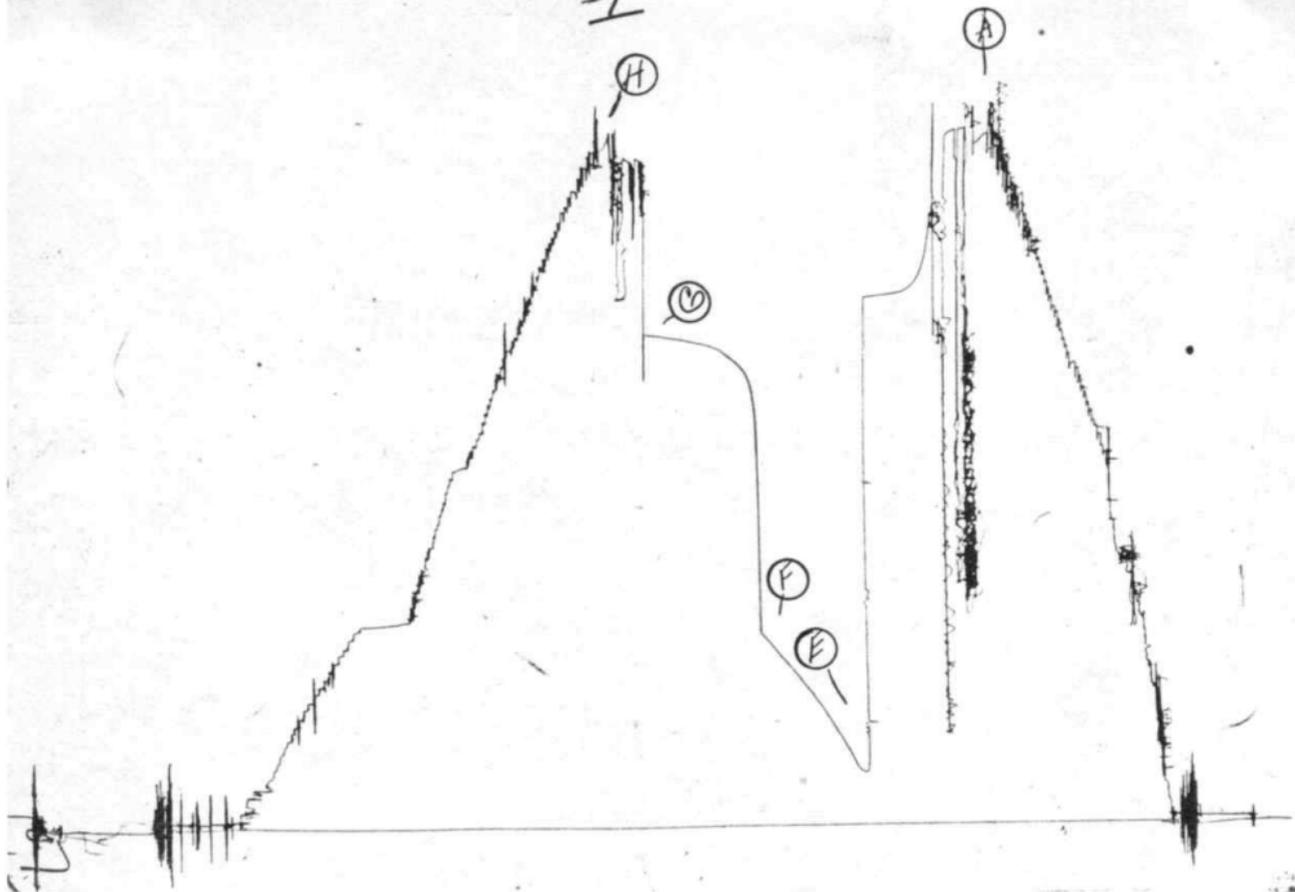
Date 5-15-80 Test Ticket No. 5785
 Recorder No. 2607 Capacity 4150 Location 5510 Ft.
 Block No. _____ Elevation 1766 ± 2 Well Temperature 133 °F

Point	Pressure		Time Given	Time Computed
Initial Hydrostatic Mud	<u>2817</u>	P.S.I.	<u>1:10 A</u>	M
First Initial Flow Pressure	—	P.S.I.	<u>30</u>	Mins. — Mins.
First Final Flow Pressure	—	P.S.I.	<u>45</u>	Mins. — Mins.
Initial Closed-in Pressure	—	P.S.I.	<u>60</u>	Mins. <u>60</u> Mins.
Second Initial Flow Pressure	<u>220</u>	P.S.I.	<u>60</u>	Mins. <u>66</u> Mins.
Second Final Flow Pressure	<u>797</u>	P.S.I.		
Final Closed-in Pressure	<u>2029</u>	P.S.I.		
Final Hydrostatic Mud	<u>2798</u>	P.S.I.		

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In	
	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: <u>22</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
	Press.	Point Minutes	Press.	Point Minutes	Press.
1		0	0	0	<u>797</u>
2		3	5	3	<u>1668</u>
3		6	10	6	<u>1811</u>
4		9	15	9	<u>1870</u>
5		12	20	12	<u>1910</u>
6		15	25	15	<u>1920</u>
7		18	30	18	<u>1933</u>
8		21	35	21	<u>1946</u>
9		24	40	24	<u>1959</u>
10		27	45	27	<u>1972</u>
11		30	50	30	<u>1985</u>
12		33	55	33	<u>1990</u>
13		36	60	36	<u>1994</u>
14		39	65	39	<u>1999</u>
15		42	70	42	<u>2004</u>
16		45	75	45	<u>2008</u>
17		48	80	48	<u>2012</u>
18		51	85	51	<u>2016</u>
19		54	90	54	<u>2019</u>
20		57		57	<u>2022</u>
		60		60	<u>2025</u>
				63	<u>2026</u>
				66	<u>2027</u>

TRK# 5985
I



Company Rains & Williamson Oil Co., Inc. Lease & Well No. Tuttle "A" #1
 Elevation 1766 Ground Level Formation ----- Effective Pay ----- Ft. Ticket No. 5785
 Date 5/15/80 Sec. 6 Twp. 35S Range 20W County Comanche State Kansas
 Test Approved by Glenn Tracy Western Representative Jim Wondra

Formation Test No. 3 Interval Tested from 5492 ft. to 5520 ft. Total Depth 5520 ft.
 Packer Depth 5487 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 5492 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 5510 ft. Recorder Number 2607 Cap. 4150
 Bottom Recorder Depth (Outside) 5513 ft. Recorder Number 3351 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Rains & Williamson Rig #2 Drill Collar Length 275 I. D. 2 1/4 in.
 Mud Type drispac Viscosity 54 Weight Pipe Length - I. D. - in.
 Weight 9.2 Water Loss 10.4 cc. Drill Pipe Length 5188 I. D. 3.8 in.
 Chlorides 28,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 410 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 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 FH in.

Blow Very weak blow throughout first flow period. Strong blow throughout second flow period.

Recovered 90 ft. of drilling mud
 Recovered 1440 ft. of salt water (chlorides 134,000 ppm)
 Recovered - ft. of -
 Recovered - ft. of -
 Recovered - ft. of -

Remarks: SLID TOOL TEN FEET TO BOTTOM. PLUGGED TOOL ON FIRST FLOW.

Time Set Packer(s) 1:10 ~~P.M.~~ ^{A.M.} Time Started Off Bottom 4:25 ~~P.M.~~ ^{A.M.} Maximum Temperature 133°
 Initial Hydrostatic Pressure 2817 (A) P.S.I.
 Initial Flow Period -- Minutes (B) -- P.S.I. to (C) -- P.S.I.
 Initial Closed In Period -- Minutes (D) -- P.S.I.
 Final Flow Period 60 Minutes (E) 220 P.S.I. to (F) 797 P.S.I.
 Final Closed In Period 66 Minutes (G) 2027 P.S.I.
 Final Hydrostatic Pressure 2798 (H) P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 5/15/80 Test Ticket No. 5785
 Recorder No. 2607 Capacity 4150 Location 5510 Ft.
 Clock No. --- Elevation 1766 Ground Level Well Temperature 133 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2817</u>	P.S.I.	<u>1:10A</u>	<u>M</u>
B First Initial Flow Pressure	<u>--</u>	P.S.I.	<u>30</u>	<u>--</u>
C First Final Flow Pressure	<u>--</u>	P.S.I.	<u>45</u>	<u>--</u>
D Initial Closed-in Pressure	<u>--</u>	P.S.I.	<u>60</u>	<u>60</u>
E Second Initial Flow Pressure	<u>220</u>	P.S.I.	<u>60</u>	<u>66</u>
F Second Final Flow Pressure	<u>797</u>	P.S.I.		
G Final Closed-in Pressure	<u>2027</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2798</u>	P.S.I.		

PRESSURE BREAKDOWN

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

Initial Shut-In
 Breakdown: 0 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: 22 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	220	0	797
P 2				5	233	3	1668
P 3				10	305	6	1811
P 4				15	369	9	1870
P 5				20	426	12	1910
P 6				25	485	15	1920
P 7				30	535	18	1933
P 8				35	582	21	1946
P 9				40	628	24	1959
P10				45	675	27	1972
P11				50	717	30	1985
P12				55	756	33	1990
P13				60	797	36	1994
P14						39	1999
P15						42	2004
P16						45	2008
P17						48	2012
P18						51	2016
P19						54	2019
P20						57	2022
						60	2025
						62	
						66	2026