



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

No. 10552

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

Elevation 3006 GS Formation KC EYF Eff. Pay Ft.

District 15 Colby Date 7-7-85 Customer Order No.

COMPANY NAME Petex Inc.

ADDRESS Rt. 2 Box 553 Rogersville Mo 65742

LEASE AND WELL NO. ENGEL 1 "A" COUNTY GOVE STATE KS Sec. 17 Twp. 11S Rge. 31W

Mail Invoice To #1 'A' Engel Co. Name Address No. Copies Requested

Mail Charts To Address No. Copies Requested

Formation Test No. 1 Interval Tested From 4102 ft. to 4135 ft. Total Depth 4135 ft.
Packer Depth 4097 ft. Size 6 3/8 in. Packer Depth ft. Size in.
Packer Depth 4102 ft. Size 6 3/8 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 4104 ft. Recorder Number 11018 Cap. 4425
Bottom Recorder Depth (Outside) 4107 ft. Recorder Number 13361 Cap. 4250
Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Blue Goose Rig #1 Drill Collar Length 313 I. D. 2 1/4 in.
Mud Type Chemical Viscosity 42 cP Weight Pipe Length I. D. in.
Weight 9.5 Water Loss 9 cc. Drill Pipe Length 3765 I. D. 3.8 in.
Chlorides 2,000 P.P.M. Test Tool Length 24 ft. Tool Size 5 1/2 in.
Jars: Make Serial Number Anchor Length 33 ft. Size 5 1/2 in.
Did Well Flow? Reversed Out 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 ON Initial open (2" in bucket)
WEAK Blow ON Final open (1/2" in bucket)

Recovered 5 ft. of oil + water cut mud (5% oil 15% water 80% mud)
Recovered 115 ft. of muddy water
Recovered ft. of
Recovered ft. of
Recovered ft. of
Chlorides 58,000 P.P.M. Sample Jars used 4 Remarks:

Time On Location 1:15 A.M. Time Pick Up Tool 2:30 A.M. Time Off Location 10:15 A.M.
Time Set Packer(s) 4:05 P.M. Time Started Off Bottom 8:05 P.M. Maximum Temperature 122°
Initial Hydrostatic Pressure (A) 2266 P.S.I.
Initial Flow Period Minutes 60 (B) 44 P.S.I. to (C) 88 P.S.I.
Initial Closed In Period Minutes 60 (D) 876 P.S.I.
Final Flow Period Minutes 60 (E) 122 P.S.I. to (F) 200 P.S.I.
Final Closed In Period Minutes 60 (G) 766 P.S.I.
Final Hydrostatic Pressure (H) 2177 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 P. Sam Houston
Signature of Customer or his authorized representative

Western Representative Greg Bailey

FIELD INVOICE

Open Hole Test \$ 550
Mistrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$ NYC
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$

WESTERN TESTING CO., INC.

Pressure Data

Date 7-7Test Ticket No. 10552Recorder No. 13361

Capacity

Location

Ft

Clock No. _____ Elevation _____

Well Temperature _____ °F

Point	Pressure	
A Initial Hydrostatic Mud	<u>2175</u>	P.S.I.
B First Initial Flow Pressure	<u>43</u>	P.S.I.
C First Final Flow Pressure	<u>73</u>	P.S.I.
D Initial Closed-in Pressure	<u>852</u>	P.S.I.
E Second Initial Flow Pressure	<u>113</u>	P.S.I.
F Second Final Flow Pressure	<u>127</u>	P.S.I.
G Final Closed-in Pressure	<u>749</u>	P.S.I.
H Final Hydrostatic Mud	<u>2132</u>	P.S.I.

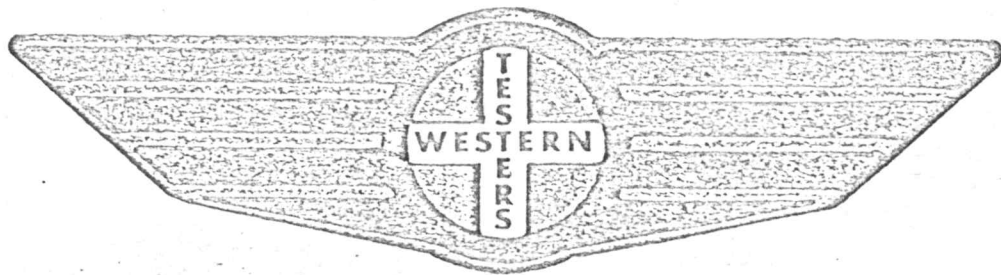
Open Tool	Time Given	M	Time Computed
First Flow Pressure	<u>60</u>	Mins.	<u>55</u> Mins.
Initial Closed-in Pressure	<u>60</u>	Mins.	<u>57</u> Mins.
Second Flow Pressure	<u>60</u>	Mins.	<u>55</u> Mins.
Final Closed-in Pressure	<u>60</u>	Mins.	<u>60</u> Mins.

Read Outside Chart!

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Initial Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>21</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 0	<u>43</u>	0	<u>73</u>	0	<u>113</u>	0	<u>127</u>
P 2 5	<u>(</u>	3	<u>197</u>	5	<u>(</u>	3	<u>225</u>
P 3 10	<u>(</u>	6	<u>335</u>	10	<u>(</u>	6	<u>309</u>
P 4 15	<u>43</u>	9	<u>423</u>	15	<u>(</u>	9	<u>369</u>
P 5 20	<u>45</u>	12	<u>497</u>	20	<u>113</u>	12	<u>418</u>
P 6 25	<u>49</u>	15	<u>551</u>	25	<u>114</u>	15	<u>461</u>
P 7 30	<u>54</u>	18	<u>596</u>	30	<u>116</u>	18	<u>497</u>
P 8 35	<u>58</u>	21	<u>633</u>	35	<u>118</u>	21	<u>527</u>
P 9 40	<u>62</u>	24	<u>662</u>	40	<u>120</u>	24	<u>554</u>
P10 45	<u>68</u>	27	<u>689</u>	45	<u>122</u>	27	<u>582</u>
P11 50	<u>71</u>	30	<u>709</u>	50	<u>124</u>	30	<u>603</u>
P12 55	<u>73</u>	33	<u>731</u>	55	<u>127</u>	33	<u>626</u>
P13 60		36	<u>752</u>	60		36	<u>645</u>
P14 65		39	<u>770</u>	65		39	<u>660</u>
P15 70		42	<u>783</u>	70		42	<u>677</u>
P16 75		45	<u>799</u>	75		45	<u>693</u>
P17 80		48	<u>813</u>	80		48	<u>708</u>
P18 85		51	<u>828</u>	85		51	<u>721</u>
P19 90		54	<u>842</u>	90		54	<u>731</u>
P20 95		57	<u>852</u>	95		57	<u>741</u>
100		<u>60</u>		100		60	<u>749</u>

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company

FIELD, INC.

Lease & Well No.

#1 A ENVEL

Sec. 1

Twp. 1S

Rge. 3E

Test No.

Date 11/1/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 7-7-85
CUSTOMER: PETEX INC.
WELL: 1
ELEVATION (KB): 3011
SECTION: 17
RANGE: 31W
GAUGE SN #13361

TEST: 1
FORMATION: KANSAS CITY E & F
TOWNSHIP: 11S
COUNTY: GOVE
RANGE: 4250

TICKET #10552
LEASE: "A" ENGEL
GEOLOGIST: P.S. HOUSTON
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4102 FT TO: 4135 FT TOTAL DEPTH: 4135 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4097 FT SIZE: 6 5/8 IN PAKER DEPTH: 4102 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PAKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: BLUE GOOSE DRLG. #1
MUD TYPE: CHEMICAL VISCOSITY: 42
WEIGHT: 9.5 WATER LOSS (CC): 9.2

CHLORIDES (P.P.M.): 2000

JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?

DRILL COLLAR LENGTH: 313 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3765 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 24 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 33 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 XH IN

BLOW: INITIAL FLOW PERIOD WEAK BLOW
(2 INCHES IN BUCKET).
FINAL FLOW PERIOD WEAK BLOW
(1/2 INCH IN BUCKET).

RECOVERED: 5 FT OF: OIL & WATER CUT MUD
RECOVERED: FT OF: (5% OIL; 15% WATER; 80% MUD).
RECOVERED: 115 FT OF: MUDDY WATER.
RECOVERED: FT OF: CHLORIDES 58000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: READ OUTSIDE CHART #13361.

TIME SET PACKER(S): 4:05 AM

TIME STARTED OFF BOTTOM: 8:05 AM

WELL TEMPERATURE: 122 °F

INITIAL HYDROSTATIC PRESSURE:

INITIAL FLOW PERIOD MIN: 55

INITIAL CLOSED IN PERIOD MIN: 57

FINAL FLOW PERIOD MIN: 55

FINAL CLOSED IN PERIOD MIN: 60

FINAL HYDROSTATIC PRESSURE

(A) 2175 PSI
(B) 43 PSI TO (C) 73 PSI
(D) 852 PSI
(E) 113 PSI TO (F) 127 PSI
(G) 749 PSI
(H) 2132 PSI

TKT # 10552 X 81011

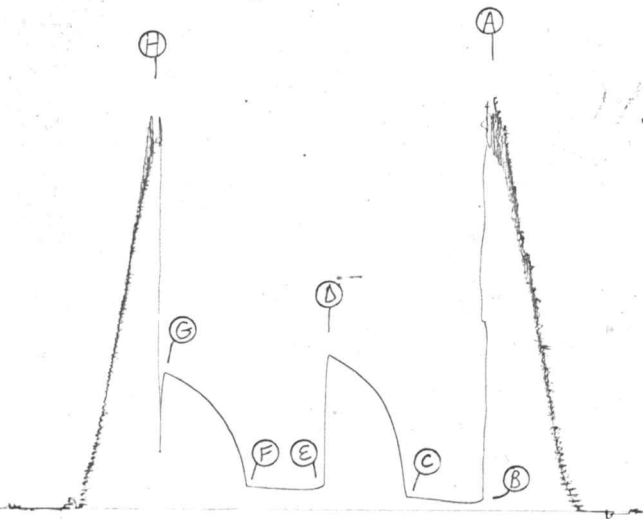
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TKT # 10552



13361





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 10553

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

Elevation 3006 G.L. Formation KC. HVI Eff. Pay Ft.

District Colby Date 7-2-85 Customer Order No.

COMPANY NAME Pkex Inc

ADDRESS Rt. 2 Box 553 Rogersville Mo. 65742

LEASE AND WELL NO. Engel 1-A COUNTY COOK STATE KS. Sec. 17 Twp. 11S Rge. 31W

Mail Invoice To #1-A Engel Co. Name Address No. Copies Requested

Mail Charts To Address No. Copies Requested

Formation Test No. 2 Interval Tested From 4173 ft. to 4240 ft. Total Depth 4240 ft.
Packer Depth 4168 ft. Size 6 5/8 in. Packer Depth ft. Size in.
Packer Depth 4173 ft. Size 6 5/8 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 4175 ft. Recorder Number 11018 Cap. 4425
Bottom Recorder Depth (Outside) 4176 ft. Recorder Number 13361 Cap. 4250
Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Blue Goose 4 Drill Collar Length 313 I. D. 2 3/4 in.
Mud Type Chemical Viscosity 42 Weight Pipe Length I. D. in.
Weight 9 3/4 Water Loss 10 1/2 cc. Drill Pipe Length 3836 I. D. 3.8 in.
Chlorides 3000 P.P.M. Test Tool Length 24 ft. Tool Size 5 1/2 in.
Jars: Make Serial Number Anchor Length 67 ft. Size 5 1/2 in.
Did Well Flow? Reversed Out 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: WEAL Blow on Initial open (slow Build to 5" in Bucket)
WEAL Blow on Final open (slow Build to 1" in Bucket)

Recovered 5 ft. of FREE OIL
Recovered 55 ft. of GAS & mud cut oil 40% oil 30% GAS 30% mud
Recovered 60 ft. of GAS & mud cut oil 50% oil 20% GAS 30% mud
Recovered 40 ft. of GAS & mud cut oil 50% oil 10% GAS 40% mud
Recovered ft. of
Chlorides P.P.M. Sample Jars used Remarks:

Time On Location 8:15 A.M. Time Pick Up Tool 9:00 A.M. Time Off Location A.M.
Time Set Packer(s) 10:35 P.M. Time Started Off Bottom 2:35 P.M. Maximum Temperature 174°
Initial Hydrostatic Pressure (A) 2177 P.S.I.
Initial Flow Period Minutes 60 (B) 33 P.S.I. to (C) 66 P.S.I.
Initial Closed In Period Minutes 60 (D) 1218 P.S.I.
Final Flow Period Minutes 60 (E) 77 P.S.I. to (F) 88 P.S.I.
Final Closed In Period Minutes 60 (G) 1218 P.S.I.
Final Hydrostatic Pressure (H) 2100 P.S.I.

COMPANY TERMS

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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 P. San Houston
Signature of Customer or his authorized representative

Western Representative Guy Baly

FIELD INVOICE

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

0200

WESTERN TESTING CO., INC.

Pressure Data

Date 7-7

Test Ticket No. 10553

Recorder No. 13361

Capacity _____ Location _____ Ft _____

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2077</u> P.S.I.	Open Tool	M
B First Initial Flow Pressure	<u>46</u> P.S.I.	First Flow Pressure	<u>60</u> Mins. <u>55</u> Min.
C First Final Flow Pressure	<u>57</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins. <u>60</u> Min.
D Initial Closed-in Pressure	<u>1188</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins. <u>60</u> Min.
E Second Initial Flow Pressure	<u>84</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins. <u>72</u> Min.
F Second Final Flow Pressure	<u>90</u> P.S.I.	<i>Read Outside Chart!</i>	
G Final Closed-in Pressure	<u>1216</u> P.S.I.		
H Final Hydrostatic Mud	<u>2053</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>12</u> Inc.		Breakdown: <u>21</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>25</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>46</u>	0	<u>57</u>	0	<u>84</u>	0	<u>90</u>
P 2 5	<u>1</u>	3	<u>49</u>	5		3	<u>107</u>
P 3 10	<u>1</u>	6	<u>92</u>	10		6	<u>150</u>
P 4 15	<u>46</u>	9	<u>139</u>	15		9	<u>224</u>
P 5 20	<u>46</u>	12	<u>232</u>	20		12	<u>369</u>
P 6 25	<u>49</u>	15	<u>397</u>	25		15	<u>530</u>
P 7 30	<u>49</u>	18	<u>407</u>	30	<u>84</u>	18	<u>698</u>
P 8 35	<u>51</u>	21	<u>774</u>	35	<u>85</u>	21	<u>804</u>
P 9 40	<u>53</u>	24	<u>873</u>	40	<u>86</u>	24	<u>879</u>
P10 45	<u>55</u>	27	<u>941</u>	45	<u>87</u>	27	<u>925</u>
P11 50	<u>56</u>	30	<u>987</u>	50	<u>88</u>	30	<u>966</u>
P12 55	<u>57</u>	33	<u>1018</u>	55	<u>89</u>	33	<u>1005</u>
P13 60		36	<u>1049</u>	60	<u>90</u>	36	<u>1037</u>
P14 65		39	<u>1079</u>	65		39	<u>1071</u>
P15 70		42	<u>1105</u>	70		42	<u>1096</u>
P16 75		45	<u>1121</u>	75		45	<u>1120</u>
P17 80		48	<u>1137</u>	80		48	<u>1138</u>
P18 85		51	<u>1154</u>	85		51	<u>1155</u>
P19 90		54	<u>1168</u>	90		54	<u>1169</u>
P20 95		57	<u>1187</u>	95		57	<u>1183</u>
100		60	<u>1188</u>	100		60	<u>1194</u>

cont

WESTERN TESTING CO., INC.

Pressure Data

Date _____

Test Ticket No. 10553

Recorder No. _____ Capacity _____ Location _____ Ft

Clock No. _____ Elevation _____ Well Temperature _____ °F

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

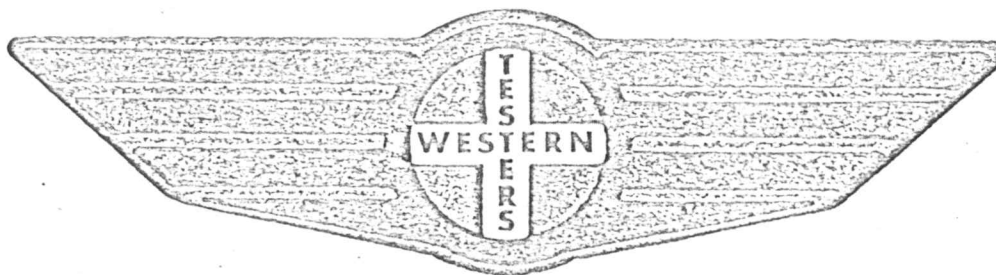
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 205		123		205		123 63	1204
P 2 210		126		210		126 66	1212
P 3 215		129		215		129 69	1216
P 4 220		132		220		132 72	1216
P 5 225		135		225		135	
P 6 230		138		230		138	
P 7 235		141		235		141	
P 8 240		144		240		144	
P 9 245		147		245		147	
P10 250		150		250		150	
P11 255		153		255		153	
P12 260		156		260		156	
P13 265		159		265		159	
P14 270		162		270		162	
P15 275		165		275		165	
P16 280		168		280		168	
P17 285		171		285		171	
P18 290		174		290		174	
P19 295		177		295		177	
P20 300		180		300		180	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company

PETEX, INC.

Lease & Well No.

#1 "A" ENGEL

Sec. 17

Twp. 11S

Rge. 31W

Test No.

2

Date 7/7/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 7-7-85
CUSTOMER: PETEX INC.
WELL: 1
ELEVATION (KB): 3011
SECTION: 17
RANGE: 31W
GAUGE SN #13361

TEST: 2
FORMATION: KANSAS CITY H & I
TOWNSHIP: 11S
COUNTY: GOVE
RANGE: 4250

TICKET #10553
LEASE: "A" ENGEL
GEOLOGIST: P.S. HOUSTON
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4173 FT TO: 4240 FT TOTAL DEPTH: 4240 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4168 FT SIZE: 6 5/8 IN PACKER DEPTH: 4173 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: BLUE GOOSE DRLG. #1
MUD TYPE: CHEMICAL VISCOSITY: 42
WEIGHT: 9.3 WATER LOSS (CC): 10.4
CHLORIDES (P.P.M.): 3000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?
DRILL COLLAR LENGTH: 313 FT I.D.: 2.75 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3836 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 24 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 67 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 XH IN

BLOW: INITIAL FLOW PERIOD WEAK BLOW;
SLOW BUILD TO 5 INCHES IN BUCKET.
FINAL FLOW PERIOD WEAK BLOW;
SLOW BUILD TO 1 INCH IN BUCKET.

RECOVERED: 5 FT OF: FREE OIL.
RECOVERED: 55 FT OF: GAS & MUD CUT OIL
RECOVERED: FT OF: (40% OIL; 30% GAS; 30% MUD).
RECOVERED: 60 FT OF: GAS & MUD CUT OIL
RECOVERED: FT OF: (50% OIL; 20% GAS; 30% MUD).
RECOVERED: 60 FT OF: GAS & MUD CUT OIL
RECOVERED: FT OF: (50% OIL; 10% GAS; 40% MUD).
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: READ OUTSIDE CHART #13361

TIME SET PACKER(S): 10:35 PM
WELL TEMPERATURE: 124 °F

TIME STARTED OFF BOTTOM: 2:35 AM

INITIAL HYDROSTATIC PRESSURE:		(A) 2077	PSI		
INITIAL FLOW PERIOD	MIN: 55	(B) 46	PSI TO (C) 57	PSI	
INITIAL CLOSED IN PERIOD	MIN: 60	(D) 1188	PSI		
FINAL FLOW PERIOD	MIN: 60	(E) 84	PSI TO (F) 90	PSI	
FINAL CLOSED IN PERIOD	MIN: 72	(G) 1216	PSI		
FINAL HYDROSTATIC PRESSURE		(H) 2053	PSI		

WESTERN TESTING CO. INC.
PRESSURE DATA

DATE: 7-7-85
CUSTOMER: PETEX INC.
WELL: 1
ELEVATION (KB): 3011
SECTION: 17
RANGE: 31W
GAUGE SN #13361

TEST: 2
COUNTY: GOVE
RANGE: 4250

TICKET #10553
LEASE: "A" ENGEL
GEOLOGIST: P.S. HOUSTON
FORMATION: KANSAS CITY H & I
TOWNSHIP: 11S
STATE: KANSAS
CLOCK: 12

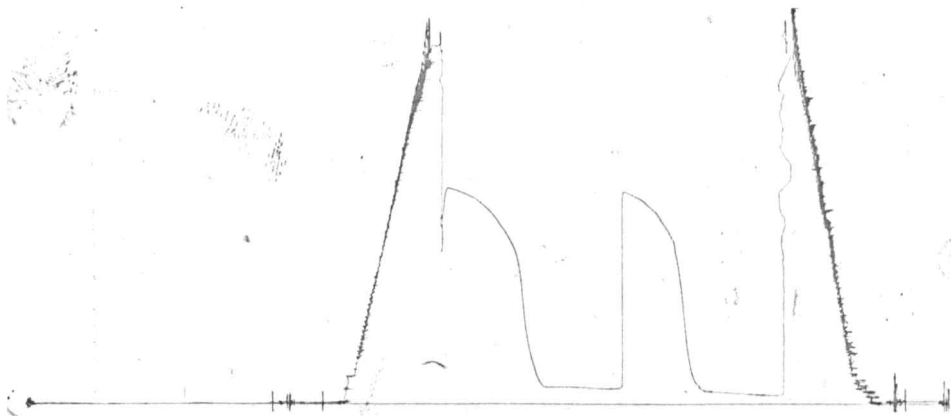
(A) INITIAL HYDROSTATIC PRESSURE: 2077 PSI
(B) FIRST INITIAL FLOW PRESSURE: 46 PSI
(C) FIRST FINAL FLOW PRESSURE: 57 PSI
(D) INITIAL CLOSED-IN PRESSURE: 1188 PSI
(E) SECOND INITIAL FLOW PRESSURE: 84 PSI
(F) SECOND FINAL FLOW PRESSURE: 90 PSI
(G) FINAL CLOSED-IN PRESSURE: 1216 PSI
(H) FINAL HYDROSTATIC PRESSURE: 2053 PSI
WELL TEMPERATURE: 124 °F
OPEN TOOL: 10:35 PM

	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	60 MIN	55 MIN
INITIAL CLOSED-IN PRESSURE:	60 MIN	60 MIN
SECOND FLOW PRESSURE:	60 MIN	60 MIN
FINAL CLOSED-IN PRESSURE:	60 MIN	72 MIN

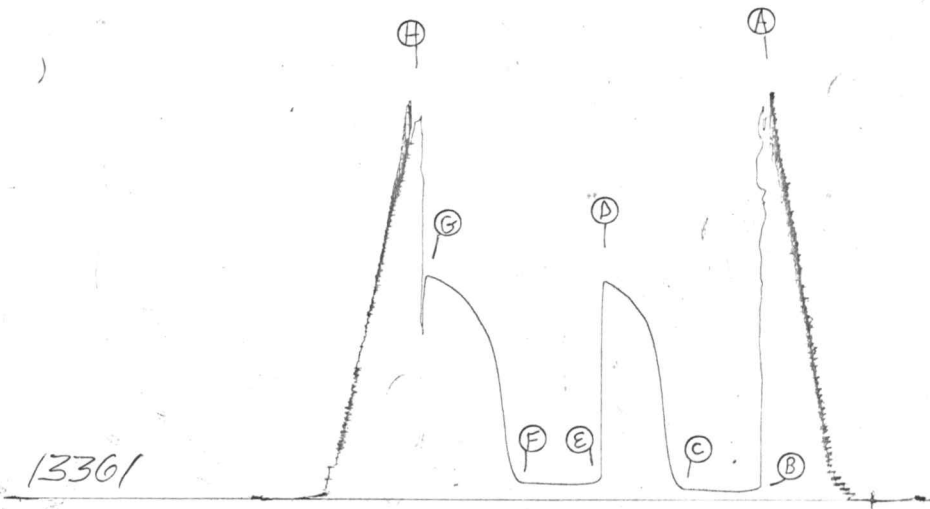
PRESSURE BREAKDOWN

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	46	0	57	0	84	0	90
2	5	46	3	69	5	84	3	107
3	10	46	6	92	10	84	6	150
4	15	46	9	139	15	84	9	224
5	20	46	12	232	20	84	12	369
6	25	47	15	397	25	84	15	530
7	30	49	18	607	30	84	18	698
8	35	51	21	774	35	85	21	804
9	40	53	24	873	40	86	24	879
10	45	55	27	941	45	87	27	925
11	50	56	30	987	50	88	30	966
12	55	57	33	1018	55	89	33	1005
13			36	1049	60	90	36	1037
14			39	1079			39	1071
15			42	1105			42	1096
16			45	1121			45	1120
17			48	1137			48	1138
18			51	1154			51	1155
19			54	1168			54	1169
20			57	1181			57	1183
21			60	1188			60	1194
22							63	1204
23							66	1212
24							69	1216
25							72	1216
26								
27								
28								
29								
30								

TKT # 10553 11018 X
I



TKT # 10553





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 10554

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

Elevation 3006 G.S. Formation KC J+K Eff. Pay Ft.

District Colby Date 7-8-85 Customer Order No.

COMPANY NAME PETEX INC.

ADDRESS Rt. 2 Box 553 ROGERSVILLE MO 65742

LEASE AND WELL NO. ENGEL 1-A COUNTY GOVE STATE KS Sec. 17 Twp. 11 Rge. 31W

Mail Invoice To #1 'A' Engel Co. Name Address No. Copies Requested

Mail Charts To Address No. Copies Requested

Formation Test No. 3 Interval Tested From 4236 ft. to 4305 ft. Total Depth 4305 ft.

Packer Depth 4231 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Packer Depth 4236 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4238 ft. Recorder Number 11018 Cap. 4425

Bottom Recorder Depth (Outside) 4241 ft. Recorder Number 13361 Cap. 4250

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor BLUE GOOSE #1 Drill Collar Length 313 I. D. 2 1/4 in.

Mud Type CHEMICAL Viscosity 47 Weight Pipe Length I. D. in.

Weight 93 Water Loss 10 cc. Drill Pipe Length 3899 I. D. 3.8 in.

Chlorides 3,000 P.P.M. Test Tool Length 24 ft. Tool Size 5 1/2 in.

Jars: Make Serial Number Anchor Length 69 ft. Size 5 1/2 in.

Did Well Flow? Reversed Out 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 11 in.

Blow: WEAK Blow on Initial open (1" in bucket)
VERY WEAK ON FINAL open (SURFACE BLOW)

Recovered 80 ft. of slightly oil cut mud 97% mud 3% oil

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides 4,000 P.P.M. Sample Jars used 2 Remarks:

RECEIVED
JUL 11 1985

Time On Location 3:45 A.M. P.M. Time Pick Up Tool 4:15 A.M. P.M. Time Off Location 12:00 A.M. P.M.

Time Set Packer(s) 5:50 A.M. P.M. Time Started Off Bottom 9:50 A.M. P.M. Maximum Temperature 126°

Initial Hydrostatic Pressure (A) 2244 P.S.I.

Initial Flow Period Minutes 60 (B) 44 P.S.I. to (C) 66 P.S.I.

Initial Closed In Period Minutes 60 (D) 1163 P.S.I.

Final Flow Period Minutes 60 (E) 77 P.S.I. to (F) 88 P.S.I.

Final Closed In Period Minutes 60 (G) 863 P.S.I.

Final Hydrostatic Pressure (H) 2144 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 P. Jan Houston
Signature of Customer or his authorized representative

Western Representative Greg Bailey 0200

FIELD INVOICE

Open Hole Test \$ 550
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 7-8-85 Test Ticket No. 10554
 Recorder No. 11018 Capacity 4425 Location _____ Ft _____
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2202</u>	P.S.I.		
B First Initial Flow Pressure	<u>53</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
C First Final Flow Pressure	<u>72</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1173</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>86</u>	P.S.I.	<u>60</u> Mins.	<u>57</u> Mins.
F Second Final Flow Pressure	<u>91</u>	P.S.I.		
G Final Closed-in Pressure	<u>856</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2100</u>	P.S.I.		

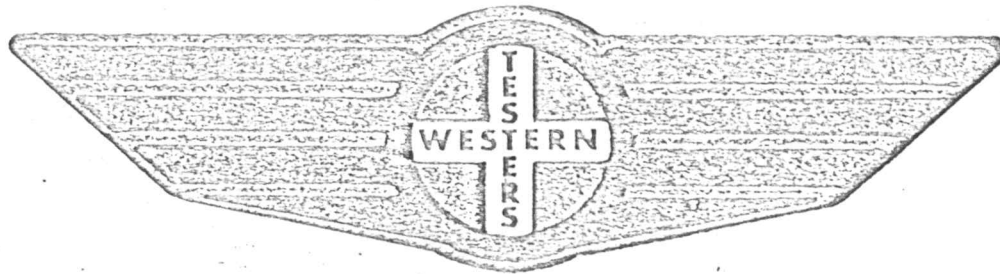
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>13</u> Inc.		Breakdown: <u>21</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>20</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>53</u>	0	<u>72</u>	0	<u>86</u>	0	<u>91</u>
P 2 5	<u>53</u>	3	<u>80</u>	5		3	<u>91</u>
P 3 10	<u>53</u>	6	<u>95</u>	10		6	<u>97</u>
P 4 15	<u>54</u>	9	<u>115</u>	15		9	<u>107</u>
P 5 20	<u>56</u>	12	<u>143</u>	20		12	<u>115</u>
P 6 25	<u>58</u>	15	<u>210</u>	25	<u>86</u>	15	<u>126</u>
P 7 30	<u>60</u>	18	<u>270</u>	30	<u>86</u>	18	<u>150</u>
P 8 35	<u>62</u>	21	<u>367</u>	35	<u>87</u>	21	<u>176</u>
P 9 40	<u>64</u>	24	<u>517</u>	40	<u>88</u>	24	<u>204</u>
P10 45	<u>66</u>	27	<u>692</u>	45	<u>89</u>	27	<u>237</u>
P11 50	<u>68</u>	30	<u>833</u>	50	<u>90</u>	30	<u>259</u>
P12 55	<u>70</u>	33	<u>918</u>	55	<u>91</u>	33	<u>290</u>
P13 60	<u>72</u>	36	<u>978</u>	60	<u>91</u>	36	<u>344</u>
P14 65		39	<u>1030</u>	65		39	<u>401</u>
P15 70		42	<u>1064</u>	70		42	<u>490</u>
P16 75		45	<u>1093</u>	75		45	<u>580</u>
P17 80		48	<u>1119</u>	80		48	<u>670</u>
P18 85		51	<u>1143</u>	85		51	<u>751</u>
P19 90		54	<u>1161</u>	90		54	<u>829</u>
P20 95		57	<u>1173</u>	95		57	<u>856</u>
100		60	<u>1173</u>	100		60	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company PETEX, INC. Lease & Well No. #1 "A" ENGEL Sec. 17 Twp. 11S Rge. 31W Test No. 3 Date 7/8/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 7-8-85
CUSTOMER: PETEX INC.
WELL: 1
ELEVATION (KB): 3011
SECTION: 17
RANGE: 31W
GAUGE SN #11018

TEST: 3
COUNTY: GOVE
RANGE: 4425

TICKET #10554
LEASE: "A" ENGEL
GEOLOGIST: PS. HOUSTON
FORMATION: KANSAS CITY J & K
TOWNSHIP: 11S
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4236 FT TO: 4305 FT TOTAL DEPTH: 4305 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4231 FT SIZE: 6 5/8 IN PACKER DEPTH: 4236 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: BLUE GOOSE DRLG. #1
MUD TYPE: CHEMICAL VISCOSITY: 47
WEIGHT: 9.3 WATER LOSS (CC): 10
CHLORIDES (P.P.M.): 3000

JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?

DRILL COLLAR LENGTH: 313 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3899 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 24 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 69 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 XH IN

BLOW: INITIAL FLOW PERIOD WEAK BLOW
(1 INCH IN BUCKET).
FINAL FLOW PERIOD VERY WEAK BLOW
(SURFACE BLOW).

RECOVERED: 80 FT OF: SLIGHTLY OIL CUT MUD
RECOVERED: FT OF: (97% MUD; 3% OIL).
RECOVERED: FT OF: CHLORIDES 4000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 5:50 PM

TIME STARTED OFF BOTTOM: 9:50 PM

WELL TEMPERATURE: 126 °F

INITIAL HYDROSTATIC PRESSURE:

INITIAL FLOW PERIOD MIN: 60

INITIAL CLOSED IN PERIOD MIN: 60

FINAL FLOW PERIOD MIN: 60

FINAL CLOSED IN PERIOD MIN: 57

FINAL HYDROSTATIC PRESSURE

(A) 2202 PSI

(B) 53 PSI TO (C) 72 PSI

(D) 1173 PSI

(E) 86 PSI TO (F) 91 PSI

(G) 856 PSI

(H) 2100 PSI

WESTERN TESTING CO. INC.
PRESSURE DATA

DATE: 7-8-85
CUSTOMER: PETEX INC.
WELL: 1
ELEVATION (KB): 3011
SECTION: 17
RANGE: 31W
GAUGE SN #11018

TEST: 3

FORMATION: KANSAS CITY J & K
TOWNSHIP: 11S

TICKET #10554
LEASE: "A" ENGEL
GEOLOGIST: PS. HOUSTON
KANSAS CITY J & K
115
STATE: KANSAS
CLOCK: 12

(A)	INITIAL HYDROSTATIC PRESSURE:	2202	PSI
(B)	FIRST INITIAL FLOW PRESSURE:	53	PSI
(C)	FIRST FINAL FLOW PRESSURE:	72	PSI
(D)	INITIAL CLOSED-IN PRESSURE:	1173	PSI
(E)	SECOND INITIAL FLOW PRESSURE:	86	PSI
(F)	SECOND FINAL FLOW PRESSURE:	91	PSI
(G)	FINAL CLOSED-IN PRESSURE:	856	PSI
(H)	FINAL HYDROSTATIC PRESSURE:	2100	PSI
WELL TEMPERATURE:		126	'F
OPEN TOOL: 5:50 PM			

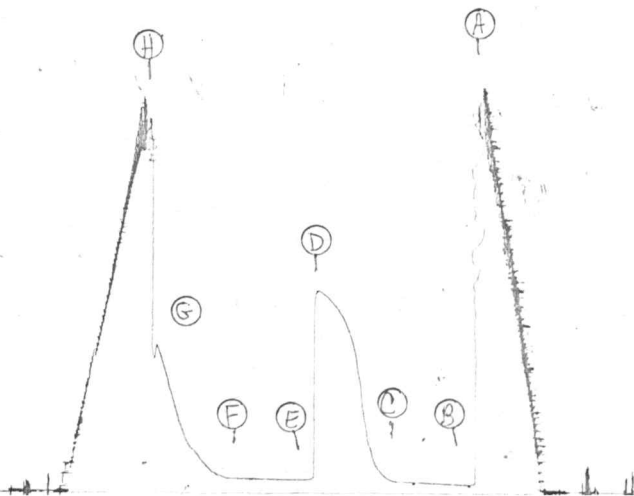
	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	60 MIN	60 MIN
INITIAL CLOSED-IN PRESSURE:	60 MIN	60 MIN
SECOND FLOW PRESSURE:	60 MIN	60 MIN
FINAL CLOSED-IN PRESSURE:	60 MIN	57 MIN

PRESSURE BREAKDOWN

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	53	0	72	0	86	0	91
2	5	53	3	80	5	86	3	91
3	10	53	6	95	10	86	6	97
4	15	54	9	115	15	86	9	107
5	20	56	12	143	20	86	12	115
6	25	58	15	210	25	86	15	126
7	30	60	18	270	30	86	18	150
8	35	62	21	367	35	87	21	176
9	40	64	24	517	40	88	24	204
10	45	66	27	692	45	89	27	237
11	50	68	30	833	50	90	30	259
12	55	70	33	918	55	91	33	290
13	60	72	36	978	60	91	36	344
14			39	1030			39	401
15			42	1064			42	490
16			45	1093			45	580
17			48	1119			48	670
18			51	1143			51	751
19			54	1161			54	829
20			57	1173			57	856
21			60	1173				

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TKT #10554
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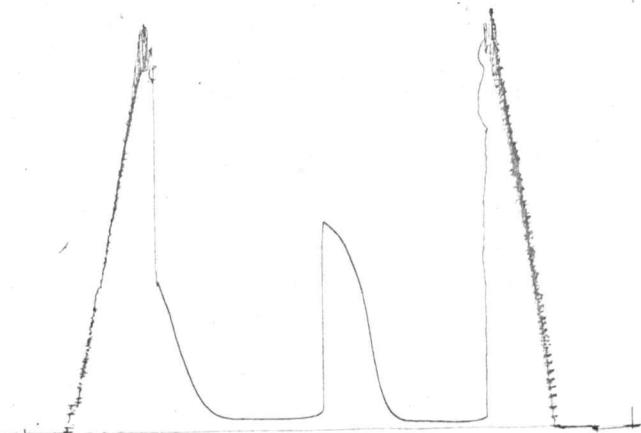


11018 X

TKT # 10554

0

13341





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N^o 10555

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

Elevation 3006 8.5 Formation PAWNEE Eff. Pay OK Ft.

District Colony Date 7-9-85 Customer Order No.

COMPANY NAME Petex Inc.

ADDRESS Rt. 2 Box 553 ROGERSVILLE MO. 65742

LEASE AND WELL NO. Engel 1-A COUNTY Gove STATE Ks Sec. 17 Twp. 11 Rge. 31W

Mail Invoice To #1 'A' Engel No. Copies Requested

Co. Name Address No. Copies Requested

Mail Charts To Address No. Copies Requested

Formation Test No. 4 Interval Tested From 4440 ft. to 4515 ft. Total Depth 4515 ft.

Packer Depth 4435 ft. Size 6 3/8 in. Packer Depth ft. Size in.

Packer Depth 4440 ft. Size 6 3/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4447 ft. Recorder Number 13548 Cap. 4075

Bottom Recorder Depth (Outside) 4445 ft. Recorder Number 13361 Cap. 4250

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Blue Goose Drill Collar Length 313 I. D. 2 1/4 in.

Mud Type Chemical Viscosity 49 Weight Pipe Length I. D. in.

Weight 9.2 Water Loss 92 cc. Drill Pipe Length 4103 I. D. 3 8 in.

Chlorides 2000 P.P.M. Test Tool Length 24 ft. Tool Size 5 1/2 in.

Jars: Make Serial Number Anchor Length 75 ft. Size 5 1/2 in.

Did Well Flow? Reversed Out 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 XH in.

Blow: VERY WEAK + DIED IN 7 MIN

No Blow - Flush Tool - No Blow

Recovered 10 ft. of mud - slight oil stain in top of tools

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

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

Time On Location 4:15 A.M. Time Pick Up Tool 4:45 P.M. Time Off Location 11:30 A.M.

Time Set Packer(s) 6:15 P.M. Time Started Off Bottom 9:15 A.M. Maximum Temperature 128°

Initial Hydrostatic Pressure 2306 P.S.I. (A) 50 P.S.I. to (C) 50 P.S.I.

Initial Flow Period 45 Minutes (B) 50 P.S.I. (D) 50 P.S.I.

Initial Closed In Period 45 Minutes (E) 60 P.S.I. to (F) 60 P.S.I.

Final Flow Period 45 Minutes (G) 60 P.S.I.

Final Closed In Period 45 Minutes (H) 2214 P.S.I.

Final Hydrostatic Pressure 2214 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 P. Jam Houston
Signature of Customer or his authorized representative

Western Representative Suz Barty 0200

FIELD INVOICE

Open Hole Test ✓ \$ 550
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint ✓ \$ 1/c
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance ✓ \$
Telecopier \$
TOTAL \$

WESTERN TESTING CO., INC.

Pressure Data

Date 7-9-85 Test Ticket No. 10555
 Recorder No. 13548 Capacity 4075 Location _____ Ft
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2297</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>51</u> P.S.I.	First Flow Pressure	<u>45</u> Mins.	Mins.
C First Final Flow Pressure	<u>52</u> P.S.I.	Initial Closed-in Pressure	<u>1</u> Mins.	Mins.
D Initial Closed-in Pressure	<u>54</u> P.S.I.	Second Flow Pressure	<u>1</u> Mins.	Mins.
E Second Initial Flow Pressure	<u>54</u> P.S.I.	Final Closed-in Pressure		Mins.
F Second Final Flow Pressure	<u>69</u> P.S.I.			
G Final Closed-in Pressure	<u>69</u> P.S.I.			
H Final Hydrostatic Mud	<u>2208</u> P.S.I.			

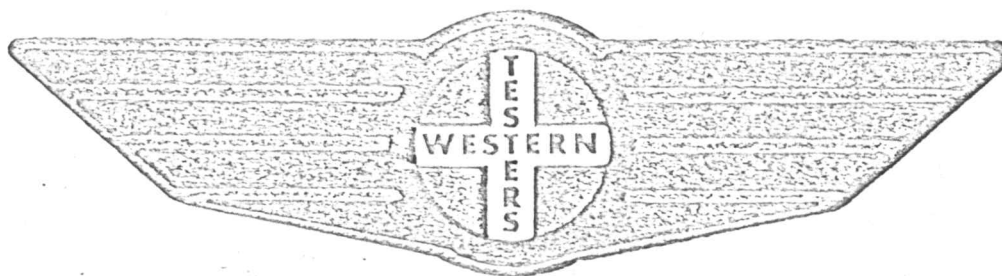
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Point	Press.	Point	Press.	Point	Press.	Point	Press.
Breakdown: <u>10</u> Inc.		Breakdown: <u>16</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>16</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.	
Mins.		Minutes		Minutes		Minutes	
P 1 0	<u>51</u>	0	<u>52</u>	0	<u>54</u>	0	<u>69</u>
P 2 5		3		5	<u>54</u>	3	
P 3 10		6		10	<u>97 FT</u>	6	
P 4 15		9		15	<u>83</u>	9	
P 5 20		12		20	<u>74</u>	12	
P 6 25		15		25	<u>71</u>	15	
P 7 30		18		30	<u>70</u>	18	
P 8 35	<u>51</u>	21		35	<u>70</u>	21	
P 9 40	<u>52</u>	24		40	<u>69</u>	24	
P10 45	<u>52</u>	27		45	<u>69</u>	27	
P11 50		30	<u>52</u>	50		30	
P12 55		33	<u>53</u>	55		33	
P13 60		36	<u>53</u>	60		36	
P14 65		39	<u>54</u>	65		39	
P15 70		42	<u>54</u>	70		42	
P16 75		45	<u>54</u>	75		45	<u>69</u>
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company PETRX, INC. Lease & Well No. #1 "A" ENGEL Sec. 17 Twp. 11S Rge. 31W Test No. 4 Date 7/9/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 7-9-85
CUSTOMER: PETEX INC.
WELL: 1
ELEVATION (KB): 3011
SECTION: 17
RANGE: 31W
GAUGE SN #13548

TEST: 4
FORMATION: PAWNEE
TOWNSHIP: 11S
COUNTY: GOVE
RANGE: 4075

TICKET #10555
LEASE: "A" ENGEL
GEOLOGIST: P.S. HOUSTON
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4440 FT TO: 4515 FT TOTAL DEPTH: 4515 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4435 FT SIZE: 6 5/8 IN PACKER DEPTH: 4440 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: BLUE GOOSE DRLG. #1
MUD TYPE: CHEMICAL VISCOSITY: 49
WEIGHT: 9.4 WATER LOSS (CC): 9.6
CHLORIDES (P.P.M.): 2000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?
DRILL COLLAR LENGTH: 313 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 4103 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 24 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 75 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 XH IN

BLOW: INITIAL FLOW PERIOD VERY WEAK BLOW;
DIED IN 7 MINUTES.
FINAL FLOW PERIOD NO BLOW;
FLUSHED TOOL; NO BLOW.

RECOVERED: 10 FT OF: MUD - SLIGHT OIL SHOW IN TOP OF TOOLS.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 6:15 PM

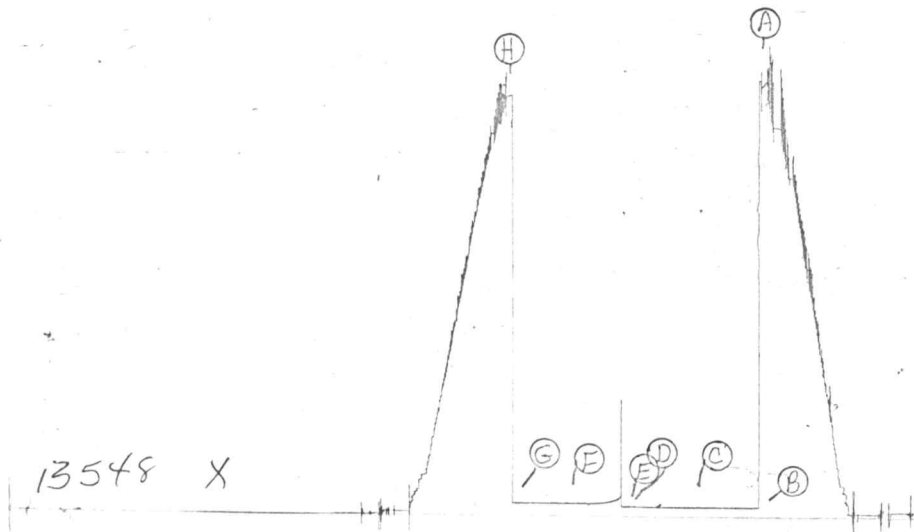
TIME STARTED OFF BOTTOM: 9:15 PM

WELL TEMPERATURE: 128 °F

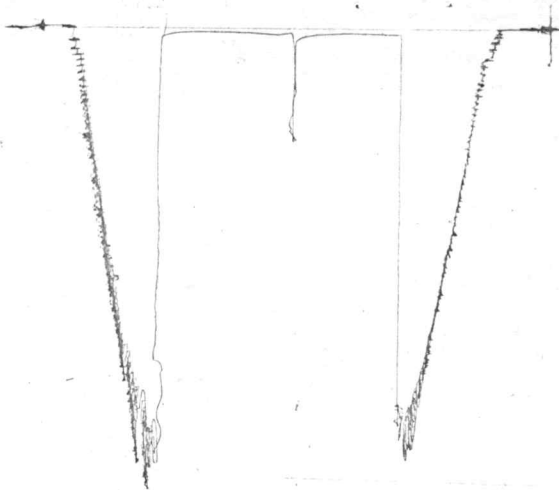
INITIAL HYDROSTATIC PRESSURE:		(A) 2297	PSI	
INITIAL FLOW PERIOD	MIN: 45	(B) 51	PSI TO (C) 52	PSI
INITIAL CLOSED IN PERIOD	MIN: 45	(D) 54	PSI	
FINAL FLOW PERIOD	MIN: 45	(E) 54	PSI TO (F) 69	PSI
FINAL CLOSED IN PERIOD	MIN: 45	(G) 69	PSI	
FINAL HYDROSTATIC PRESSURE		(H) 2208	PSI	

TKT #10555

I



~~174~~
13361



IRI # 10555
0



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

Nº 10556

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

Elevation

3006

Formation

Johnson

Eff. Pay Ft.

WICHITA, KANSAS 67201

District

Colby

Date

7-10-85

Customer Order No.

COMPANY NAME

PETEX INC

ADDRESS

Rt. 2 Box 553 ROGERSVILLE MO 65742

LEASE AND WELL NO.

ENGEL 1-A

COUNTY

GOVE

STATE

Ks

Sec.

17

Twp.

Rge.

31W

Mail Invoice To

Co. Name

Address

No. Copies Requested

Mail Charts To

No. Copies Requested

Formation Test No.

5

Interval Tested From

4564

ft. to

4632

ft.

Total Depth

4632

ft.

Packer Depth

4559

ft.

Size

6 5/8

in.

Packer Depth

—

ft.

Size

—

in.

Packer Depth

4564

ft.

Size

6 5/8

in.

Packer Depth

—

ft.

Size

—

in.

Depth of Selective Zone Set

Top Recorder Depth (Inside)

4566

ft.

Recorder Number

13548

Cap.

4075

Bottom Recorder Depth (Outside)

4569

ft.

Recorder Number

13361

Cap.

4250

Below Straddle Recorder Depth

—

ft.

Recorder Number

—

Cap.

—

Drilling Contractor

Blue Goose

Drill Collar Length

313

I. D.

2 1/4

in.

Mud Type

Chemical

Viscosity

49

Weight Pipe Length

—

I. D.

—

in.

Weight

92

Water Loss

92

cc.

Drill Pipe Length

4227

I. D.

3.8

in.

Chlorides

2,000

P.P.M.

Test Tool Length

24

ft.

Tool Size

5 1/2

in.

Jars: Make

—

Serial Number

—

Anchor Length

68

ft.

Size

5 1/2

in.

Did Well Flow?

—

Reversed Out

—

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: STRONG Blow on FINAL OPEN (Btm OF BUCKET IN 23 min)
STRONG Blow on FINAL OPEN (Btm OF BUCKET IN 20 min)

Recovered 390 ft. of total FLUID

Recovered 30 ft. of mud cut oil 60% oil 40% mud

Recovered 60 ft. of GAS + mud cut oil 40% oil 30% GAS 30% mud

Recovered 300 ft. of mud + oil + GAS 40% oil 50% GAS 10% mud

Recovered 540 ft. of GAS in PIPE

Chlorides P.P.M. Sample Jars used 7 Remarks: WEAK Blow on FINAL CLOSED-IN PERIOD

Time On Location 10:15

A.M.

Time Pick Up Tool 11:30

A.M.

Time Off Location 7:15

A.M.

Time Set Packer(s) 1:15

P.M.

Time Started Off Bottom 5:15

A.M.

Maximum Temperature 130°

Initial Hydrostatic Pressure

(A)

2387

P.S.I.

Initial Flow Period

Minutes

60

(B)

60

P.S.I. to (C)

131

P.S.I.

Initial Closed In Period

Minutes

60

(D)

835

P.S.I.

Final Flow Period

Minutes

60

(E)

182

P.S.I. to (F)

182

P.S.I.

Final Closed In Period

Minutes

60

(G)

763

P.S.I.

Final Hydrostatic Pressure

(H)

2295

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

P. Sam Hunter

Signature of Customer or his authorized representative

Western Representative

Sue B. 0200

FIELD INVOICE

Open Hole Test ✓ \$ 550
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint ✓ \$ NC
Standby \$
Evaluation ✓ \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance ✓ \$
Telecopier \$
TOTAL \$

Liquid Production

B.T. Gauge Numbers				Ticket Number	10556
Initial Hydrostatic			PRESSURE	Elevation	3006 KB ft.
			2378		
Final Hydrostatic			2295	Indicated Production	1.905 bbls. day
1st Flow	Initial	Time	75	Total Flow	715 bbls. day
	Final	60	132	Drill Collar Length	313 ft.
Initial Closed In Pressure		60	842	Drill Collar I.D.	2.25 in.
2nd Flow	Initial	-----	185	Drill Pipe Factor	.0142 bbls. ft.
	Final	60	185	Hole Size	7.815 in.
Final Closed In Pressure		60	763	Footage Tested	68 ft.
Extrapolated Static Pressure		Initial	1029 - 402	Mud Weight	9.4 lbs. gal.
		Final	952 - 323	Viscosity, Oil or Water	cp
Slope psi/cycle		Initial	626.962	Oil API Gravity	—
		Final	628.769	Water Specific Gravity	—

Remarks: _____

SUMMARY

Gauge

 Depth

Product	Equation	INITIAL	FINAL	Units
Production	$Q = \frac{1440 R}{t}$	45.733	17.183	bbls. day.
Transmissability	$\frac{Kh}{\mu} = \frac{162.6 Q}{m}$	11.860	4.442	md. ft. cp.
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu} \mu$	47.440	17.768	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$	5.271	1.974	md.
	$K_1 = \frac{Kh}{h_1}$	—	—	md.
Damage Ratio	$DR = .183 \frac{P_s - P_f}{m}$	1261	1223	—
Theoretical Potential w/Damage Removed	$Q_1 = Q DR$	DR Less than one	DR Less than one	bbls. day
Approx. Radius of Investigation	$b \approx \sqrt{Kt}$ or $\sqrt{Kt_0}$	17.783	10.883	ft.
	$b_1 \approx \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$			ft.
Potentiometric Surface *	$Pot. = EI - GD + 2.319 Ps$			ft.

NOTICE: These calculations are based upon information furnished by you and taken from Drill Stem Test pressure charts, and are furnished you for your information. In furnishing such calculations and elevations based thereon, Western Testing Co., Inc. is merely expressing its opinion. You agree that Western Testing Co., Inc. makes no warranty express or implied as to the accuracy of such calculations or opinions, and that Western Testing Co., Inc. shall not be liable for any loss or damage, whether due to negligence or otherwise, in connection with such calculations and opinions.

WESTERN TESTING CO., INC.

Pressure Data

Date 7-10

Test Ticket No. 10556

Recorder No. 13548

Capacity _____ Location _____ Ft

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2378</u> P.S.I.			
B First Initial Flow Pressure	<u>75</u> P.S.I.	First Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins
C First Final Flow Pressure	<u>132</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins
D Initial Closed-in Pressure	<u>842</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins
E Second Initial Flow Pressure	<u>185</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins
F Second Final Flow Pressure	<u>185</u> P.S.I.			
G Final Closed-in Pressure	<u>763</u> P.S.I.			
H Final Hydrostatic Mud	<u>2295</u> P.S.I.			

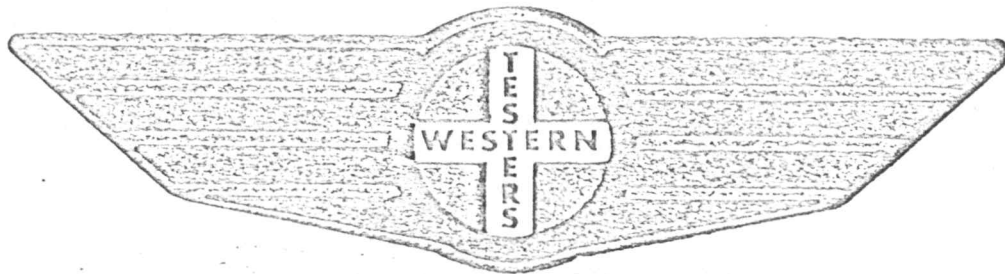
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>13</u> Inc.		Breakdown: <u>21</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>21</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>75</u>	0	<u>132</u>	0	<u>185</u>	0	<u>185</u>
P 2 5	<u>75</u>	3	<u>211</u>	5	<u>/</u>	3	<u>271</u>
P 3 10	<u>75</u>	6	<u>377</u>	10	<u>/</u>	6	<u>395</u>
P 4 15	<u>76</u>	9	<u>492</u>	15	<u>/</u>	9	<u>468</u>
P 5 20	<u>79</u>	12	<u>560</u>	20	<u>185</u>	12	<u>525</u>
P 6 25	<u>86</u>	15	<u>616</u>	25	<u>/</u>	15	<u>566</u>
P 7 30	<u>93</u>	18	<u>654</u>	30	<u>/</u>	18	<u>593</u>
P 8 35	<u>101</u>	21	<u>683</u>	35	<u>/</u>	21	<u>620</u>
P 9 40	<u>108</u>	24	<u>708</u>	40	<u>/</u>	24	<u>639</u>
P10 45	<u>116</u>	27	<u>726</u>	45	<u>/</u>	27	<u>652</u>
P11 50	<u>121</u>	30	<u>744</u>	50	<u>/</u>	30	<u>665</u>
P12 55	<u>128</u>	33	<u>757</u>	55	<u>/</u>	33	<u>678</u>
P13 60	<u>132</u>	36	<u>770</u>	60	<u>185</u>	36	<u>691</u>
P14 65		39	<u>781</u>	65		39	<u>701</u>
P15 70		42	<u>792</u>	70		42	<u>711</u>
P16 75		45	<u>802</u>	75		45	<u>721</u>
P17 80		48	<u>810</u>	80		48	<u>731</u>
P18 85		51	<u>818</u>	85		51	<u>740</u>
P19 90		54	<u>826</u>	90		54	<u>748</u>
P20 95		57	<u>834</u>	95		57	<u>756</u>
100		60	<u>842</u>	100		60	<u>763</u>

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company

PETEX, INC.

Lease & Well No.

#1 "A" ENGEL

Sec. 17

Twp. 11S Rge. 31W

Test No. 5

Date 7/10/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 7-10-85
CUSTOMER: PETEX INC.
WELL: 1
ELEVATION (KB): 3006
SECTION: 17
RANGE: 31W
GAUGE SN #13548

TEST: 5
FORMATION: JOHNSON
TOWNSHIP: 11S
COUNTY: GOVE
RANGE: 4075

TICKET #10556
LEASE: "A" ENGEL
GEOLOGIST: P.S. HOUSTON
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4564 FT TO: 4632 FT TOTAL DEPTH: 4632 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4559 FT SIZE: 6 5/8 IN PACKER DEPTH: 4564 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: BLUE GOOSE DRLG. #1
MUD TYPE: CHEMICAL VISCOSITY: 49
WEIGHT: 9.4 WATER LOSS (CC): 9.6
CHLORIDES (P.P.M.): 2000

JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?

DRILL COLLAR LENGTH: 313 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 4227 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 24 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 68 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 XH IN

BLOW: INITIAL FLOW PERIOD STRONG BLOW;
BOTTOM OF BUCKET IN 23 MINUTES.
FINAL FLOW PERIOD STRONG BLOW;
BOTTOM OF BUCKET IN 20 MINUTES.

RECOVERED: 30 FT OF: MUD CUT OIL (60% OIL; 40% MUD).
RECOVERED: 60 FT OF: GAS & MUD CUT OIL (40% OIL; 30% GAS; 30% MUD).
RECOVERED: 300 FT OF: MUD & OILY GAS (40% OIL; 50% GAS; 10% MUD).
RECOVERED: 540 FT OF: GAS ABOVE FLUID.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: WEAK BLOW ON FINAL CLOSED-IN PERIOD.

TIME SET PACKER(S): 1:15 PM TIME STARTED OFF BOTTOM: 5:15 PM
WELL TEMPERATURE: 130 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2378 PSI
INITIAL FLOW PERIOD MIN: 60 (B) 75 PSI TO (C) 132 PSI
INITIAL CLOSED IN PERIOD MIN: 60 (D) 842 PSI
FINAL FLOW PERIOD MIN: 60 (E) 185 PSI TO (F) 185 PSI
FINAL CLOSED IN PERIOD MIN: 60 (G) 763 PSI
FINAL HYDROSTATIC PRESSURE (H) 2295 PSI

WESTERN TESTING CO. INC.
PRESSURE DATA

DATE: 7-10-85
CUSTOMER: PETEX INC.
WELL: 1
ELEVATION (KB): 3006
SECTION: 17
RANGE: 31W
GAUGE SN #13548

TEST: 5

FORMATION: JOHNSON
TOWNSHIP: 11S

TICKET #10556
LEASE: "A" ENGEL
GEOLOGIST: P.S. HOUSTON
JOHNSON
11S
STATE: KANSAS
CLOCK: 12

(A)	INITIAL HYDROSTATIC PRESSURE:	2378	PSI
(B)	FIRST INITIAL FLOW PRESSURE:	75	PSI
(C)	FIRST FINAL FLOW PRESSURE:	132	PSI
(D)	INITIAL CLOSED-IN PRESSURE:	842	PSI
(E)	SECOND INITIAL FLOW PRESSURE:	185	PSI
(F)	SECOND FINAL FLOW PRESSURE:	185	PSI
(G)	FINAL CLOSED-IN PRESSURE:	763	PSI
(H)	FINAL HYDROSTATIC PRESSURE:	2295	PSI
WELL TEMPERATURE:		130	'F
OPEN TOOL: 1:15 PM			

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

PRESSURE BREAKDOWN

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	75	0	132	0	185	0	185
2	5	75	3	211	5	185	3	271
3	10	75	6	377	10	185	6	395
4	15	76	9	492	15	185	9	468
5	20	79	12	560	20	185	12	525
6	25	86	15	616	25	185	15	566
7	30	93	18	654	30	185	18	593
8	35	101	21	683	35	185	21	620
9	40	108	24	708	40	185	24	639
10	45	116	27	726	45	185	27	652
11	50	121	30	744	50	185	30	665
12	55	128	33	757	55	185	33	678
13	60	132	36	770	60	185	36	691
14			39	781			39	701
15			42	792			42	711
16			45	802			45	721
17			48	810			48	731
18			51	818			51	740
19			54	826			54	748
20			57	834			57	756
21			60	842			60	763

22
23
24
25
26
27
28
29
30

Liquid Production

B.T. Gauge Numbers				Ticket Number	10556
Initial Hydrostatic			PRESSURE	Elevation	3006 KB ft.
			2378		
Final Hydrostatic				1st Flow	1.905 bbls. day
			2295	Indicated Production	
1st Flow	Initial	Time -----	75	Total Flow	.715 bbls. day
	Final	60	132	Drill Collar Length	313 ft.
Initial Closed In Pressure		60	842	Drill Collar I.D.	2.25 in.
2nd Flow	Initial	-----	185	Drill Pipe Factor	.0142 bbls. ft.
	Final	60	185	Hole Size	7.875 in.
Final Closed In Pressure		60	763	Footage Tested	68 ft.
Extrapolated Static Pressure	Initial		1029-402	Mud Weight	9.4 lbs. gal.
	Final		952-323	Viscosity, Oil or Water	cp
Slope psi/cycle	Initial		626.962	Oil API Gravity	—
	Final		628.769	Water Specific Gravity	—

Remarks:

SUMMARY

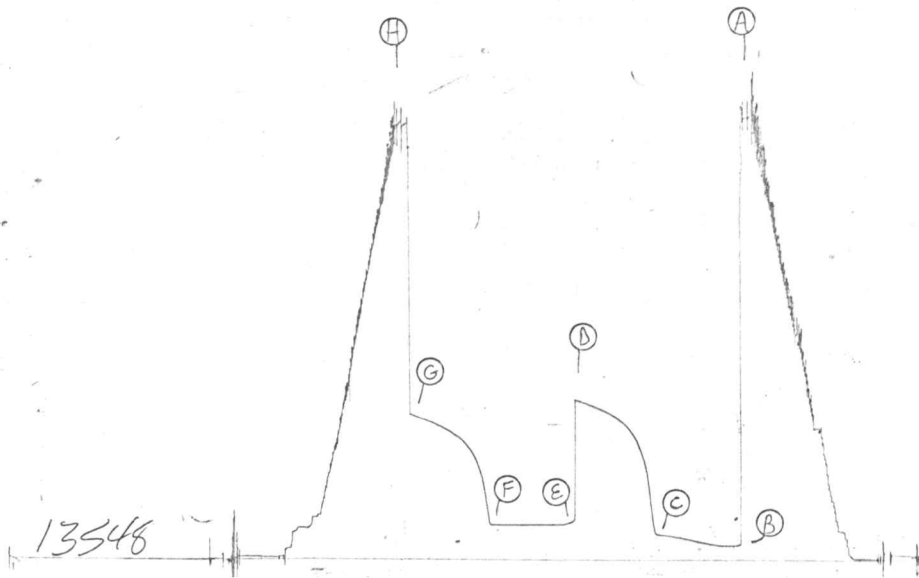
Gauge
No.
Depth

Product	Equation	INITIAL	FINAL	Units
Production	$Q = \frac{1440 R}{t}$	45.733	17.183	bbls. day
Transmissibility	$\frac{Kh}{\mu} = \frac{162.6 Q}{m}$	11.860	4.442	md. ft. cp
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu} \mu$	47.440	17.768	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$	5.271	1.974	md.
Damage Ratio	$DR = .183 \frac{Ps - Pf}{m}$	.261	.223	---
Theoretical Potential w/Damage Removed	$Q_1 = Q DR$	Dr less than one	DR less than one	bbls. day
Approx. Radius of Investigation	$b \approx \sqrt{Kt}$ or $\sqrt{Kt_0}$	17.783	10.883	ft.
	$b_1 \approx \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$			ft.
Potentiometric Surface	$Pot. = EI - CD + 2.319 Ps$			ft.

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TKT # 10556

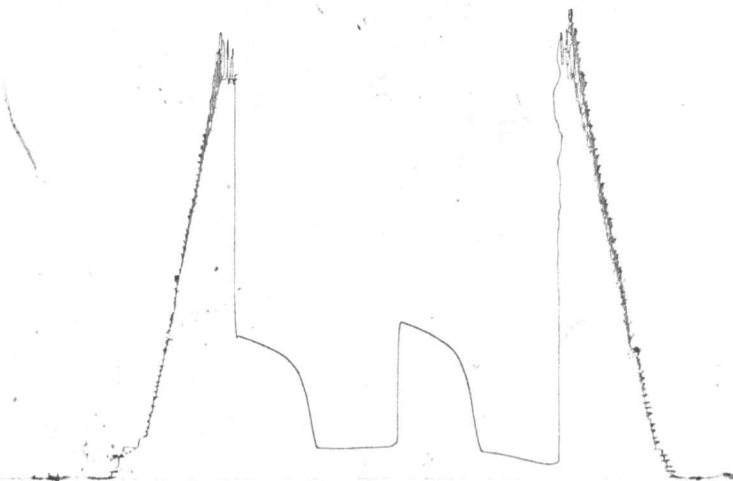
I



TKT # 10556

O

13361





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N° 10557

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

WICHITA, KANSAS 67201

Elevation 3006 G.S. Formation MISSOURI ZONE Eff. Pay Ft.

COMPANY NAME Petex Inc. District Colby Date 7-11-85 Customer Order No.

ADDRESS Rt. 2 Box 553 Rogersville Mo 65742

LEASE AND WELL NO. ENGEL 1-A COUNTY COVE STATE KS Sec. 17 Twp. 11 Rge. 31W

Mail Invoice To #1 'A' Engel No. Copies Requested

Co. Name Address No. Copies Requested

Mail Charts To Address No. Copies Requested

Formation Test No. 4649 Interval Tested From 4649 ft. to 4675 ft. Total Depth 4675 ft.

Packer Depth 4649 ft. Size 6 5/8 in. Packer Depth 4675 ft. Size 6 5/8 in.

Packer Depth 4649 ft. Size 6 5/8 in. Packer Depth 4675 ft. Size 6 5/8 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4651 ft. Recorder Number 13548 Cap. 4075

Bottom Recorder Depth (Outside) 4654 ft. Recorder Number 13361 Cap. 4250

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor BLUE GOOSE 4 Drill Collar Length 313 I. D. 2 1/4 in.

Mud Type Chemical Viscosity 49 Weight Pipe Length I. D. in.

Weight 9 1/2 Water Loss 9 cc. Drill Pipe Length 4312 I. D. 3.8 in.

Chlorides 2,000 P.P.M. Test Tool Length 24 ft. Tool Size 5 1/2 in.

Jars: Make Serial Number Anchor Length 26 ft. Size 5 1/2 in.

Did Well Flow? Reversed Out 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 in.

Blow: STRONG BLOW ON INITIAL OPEN (Btm OF BUCKET IN 10min)

STRONG BLOW ON FINAL OPEN (Btm OF BUCKET IN 18min)

Recovered 810 ft. of GAS IN PIPE

Recovered 60 ft. of CLEAN GASSY OIL 40 GRAVITY

Recovered 150 ft. of mud + GAS cut oil 50% oil 35% GAS 15% mud

Recovered 60 ft. of oil + mud cut water 5% oil 40% mud 55% WATER

Recovered 240 ft. of muddy water

Chlorides 35,000 P.P.M. Sample Jars used 8 Remarks: FAIR BLOW ON BOTH CLOSED IN PERIODS

6" ON INITIAL - 8" ON FINAL

Time On Location 3:45 A.M. Time Pick Up Tool 5:30 P.M. Time Off Location A.M.

Time Set Packer(s) 7:30 P.M. Time Started Off Bottom 10:30 P.M. Maximum Temperature 135°

Initial Hydrostatic Pressure (A) 2510 P.S.I.

Initial Flow Period Minutes 45 (B) 121 P.S.I. to (C) 182 P.S.I.

Initial Closed In Period Minutes 45 (D) 1040 P.S.I.

Final Flow Period Minutes 45 (E) 253 P.S.I. to (F) 253 P.S.I.

Final Closed In Period Minutes 45 (G) 845 P.S.I.

Final Hydrostatic Pressure (H) 2448 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 P. Jan Houston

Signature of Customer or his authorized representative

Western Representative Sig Bailey 0280

FIELD INVOICE

Open Hole Test \$ 550
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 7-11Test Ticket No. 10557Recorder No. 13548

Capacity

Location

Ft

Clock No. _____ Elevation _____

Well Temperature _____ °F

Point	Pressure	Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>2451</u> P.S.I.		
B. First Initial Flow Pressure	<u>127</u> P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
C. First Final Flow Pressure	<u>181</u> P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
D. Initial Closed-in Pressure	<u>1034</u> P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
E. Second Initial Flow Pressure	<u>255</u> P.S.I.	<u>45</u> Mins.	<u>48</u> Mins.
F. Second Final Flow Pressure	<u>255</u> P.S.I.		
G. Final Closed-in Pressure	<u>844</u> P.S.I.		
H. Final Hydrostatic Mud	<u>2388</u> P.S.I.		

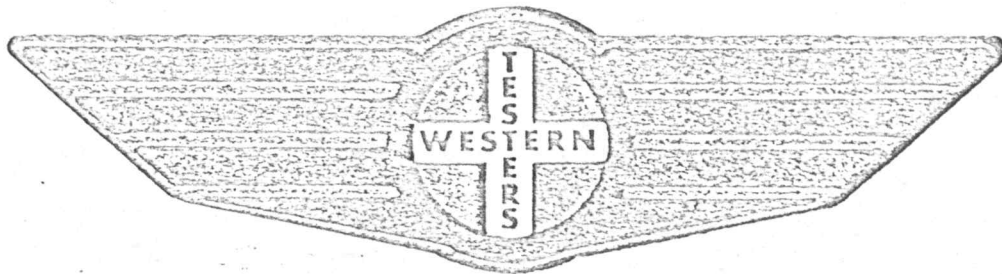
PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>10</u> Inc.		Breakdown: <u>16</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>17</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>127</u>	0	<u>181</u>	0	<u>255</u>	0	<u>255</u>
P 2 5	<u>127</u>	3	<u>332</u>	5	<u>(</u>	3	<u>362</u>
P 3 10	<u>127</u>	6	<u>431</u>	10	<u>(</u>	6	<u>410</u>
P 4 15	<u>135</u>	9	<u>576</u>	15	<u>255</u>	9	<u>456</u>
P 5 20	<u>144</u>	12	<u>712</u>	20	<u>(</u>	12	<u>501</u>
P 6 25	<u>151</u>	15	<u>788</u>	25	<u>(</u>	15	<u>537</u>
P 7 30	<u>158</u>	18	<u>848</u>	30	<u>255</u>	18	<u>581</u>
P 8 35	<u>165</u>	21	<u>891</u>	35	<u>(</u>	21	<u>613</u>
P 9 40	<u>173</u>	24	<u>925</u>	40	<u>(</u>	24	<u>650</u>
P 10 45	<u>181</u>	27	<u>951</u>	45	<u>255</u>	27	<u>680</u>
P 11 50		30	<u>972</u>	50		30	<u>711</u>
P 12 55		33	<u>989</u>	55		33	<u>739</u>
P 13 60		36	<u>1004</u>	60		36	<u>763</u>
P 14 65		39	<u>1018</u>	65		39	<u>789</u>
P 15 70		42	<u>1027</u>	70		42	<u>810</u>
P 16 75		45	<u>1034</u>	75		45	<u>832</u>
P 17 80		48		80		48	<u>844</u>
P 18 85		51		85		51	
P 19 90		54		90		54	
P 20 95		57		95		57	
100		60		100		60	

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company

PETEX, INC.

Lease & Well No. #1 "A" ENGEL

Sec. 17

Twp. 11S

Rge. 31W

Test No. 6

Date

7/11/85

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 7-11-85
CUSTOMER: PETEX INC.
WELL: 1
ELEVATION (KB): 3011
SECTION: 17
RANGE: 31W
GAUGE SN #13548

TEST: 6
FORMATION: MISS/DUAL ZONE
TOWNSHIP: 11S
COUNTY: GOVE
RANGE: 4075

TICKET #10557
LEASE: "A" ENGEL
GEOLOGIST: P.S. HOUSTON
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4649 FT TO: 4675 FT TOTAL DEPTH: 4675 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4644 FT SIZE: 6 5/8 IN PAKER DEPTH: 4649 FT SIZE: 6 5/8 IN
PACKER DEPTH: FT SIZE: IN PAKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: BLUE GOOSE DRLG. #1
MUD TYPE: CHEMICAL VISCOSITY: 49
WEIGHT: 9.4 WATER LOSS (CC): 9.6
CHLORIDES (P.P.M.): 2000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?
DRILL COLLAR LENGTH: 313 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 4312 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 24 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 26 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 XH IN

BLOW: INITIAL FLOW PERIOD STRONG BLOW;
BOTTOM OF BUCKET IN 10 MINUTES.
FINAL FLOW PERIOD STRONG BLOW;
BOTTOM OF BUCKET IN 18 MINUTES.

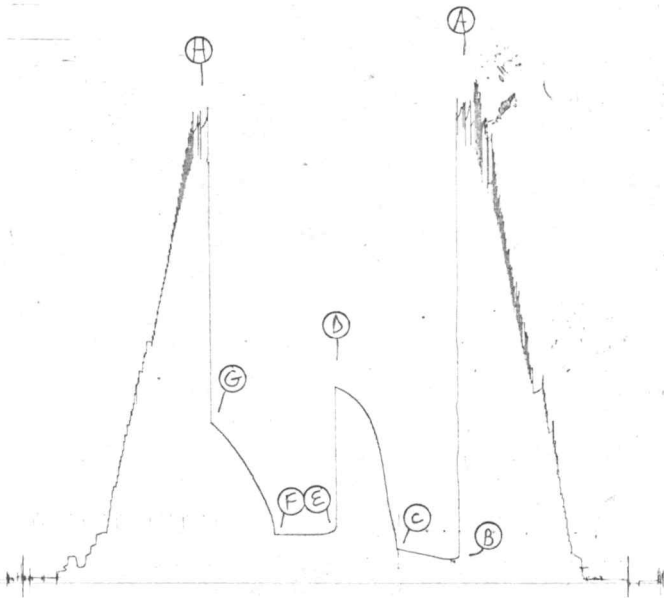
RECOVERED: 810 FT OF: GAS ABOVE FLUID.
RECOVERED: 60 FT OF: CLEAN GASSY OIL (40 GRAVITY)
RECOVERED: 150 FT OF: MUD & GAS CUT OIL
RECOVERED: FT OF: (50% OIL; 35% GAS; 15% MUD).
RECOVERED: 60 FT OF: OIL & MUD CUT WATER
RECOVERED: FT OF: (5% OIL; 40% MUD; 55% WATER).
RECOVERED: 240 FT OF: MUDDY WATER.
RECOVERED: FT OF: CHLORIDES 35000 PPM.
RECOVERED: FT OF:

REMARKS: FAIR BLOW ON BOTH CLOSED-IN PERIODS.
6 INCHES ON INITIAL - 8 INCHES ON FINAL.

TIME SET PACKER(S): 7:30 AM
WELL TEMPERATURE: 135 °F
INITIAL HYDROSTATIC PRESSURE: (A) 2451 PSI
INITIAL FLOW PERIOD MIN: 45 (B) 127 PSI TO (C) 181 PSI
INITIAL CLOSED IN PERIOD MIN: 45 (D) 1034 PSI
FINAL FLOW PERIOD MIN: 45 (E) 255 PSI TO (F) 255 PSI
FINAL CLOSED IN PERIOD MIN: 48 (G) 844 PSI
FINAL HYDROSTATIC PRESSURE (H) 2388 PSI

TKT # 10557

I



13548 X

TKT # 10557



13361

