WESTERN TESTERS

Home Office: Wichita, Kansas 67201

P.O. Box 1599 (316) 262-5861

Company A. Scott Ritchie Lease & Well No. Parkhurst #1

Elevation 1849 Kelly Bushing Formation Tarkio Sand Effective Pay - Ft. Ticket No. 15024

Date 10/ 11/81 Sec. 9 Twp. 14S Range 13W County Russell State Kansas

Test Approved by Jeff Christian Western Representative Cliff Scheuerman

Formation Test No. 1 Interval Tested from 2371 ft. to 2445 ft. Total Depth 2445 ft.

Packer Depth - ft. Size - in. Packer Depth 2371 ft. Size 6 5/8 in.

Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2380 ft. Recorder Number 1563 Cap. 4200

Bottom Recorder Depth (Outside) 2383 ft. Recorder Number 1562 Cap. 3900

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

Drilling Contractor Murfin Drilling Rig #19 Drill Collar Length - I. D. - in.

Mud Type starch Viscosity 38 Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss 13.6 cc. Drill Pipe Length 2356 I. D. 3.8 in.

Chlorides 60,000 P.P.M. Test Tool Length 15 ft. Tool Size 5½ in.

Jars: Make - Serial Number - Anchor Length 74 ft. Size 5½ 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 4½FH in.

Blow: MISRUN

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: HIT BRIDGE TWENTY FIVE FEET OFF BOTTOM . ONE PACKER.

MISRUN * NO PRESSURES AVAILABLE

Time Set Packer(s) A.M. P.M. Time Started Off Bottom A.M. P.M. Maximum Temperature

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

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

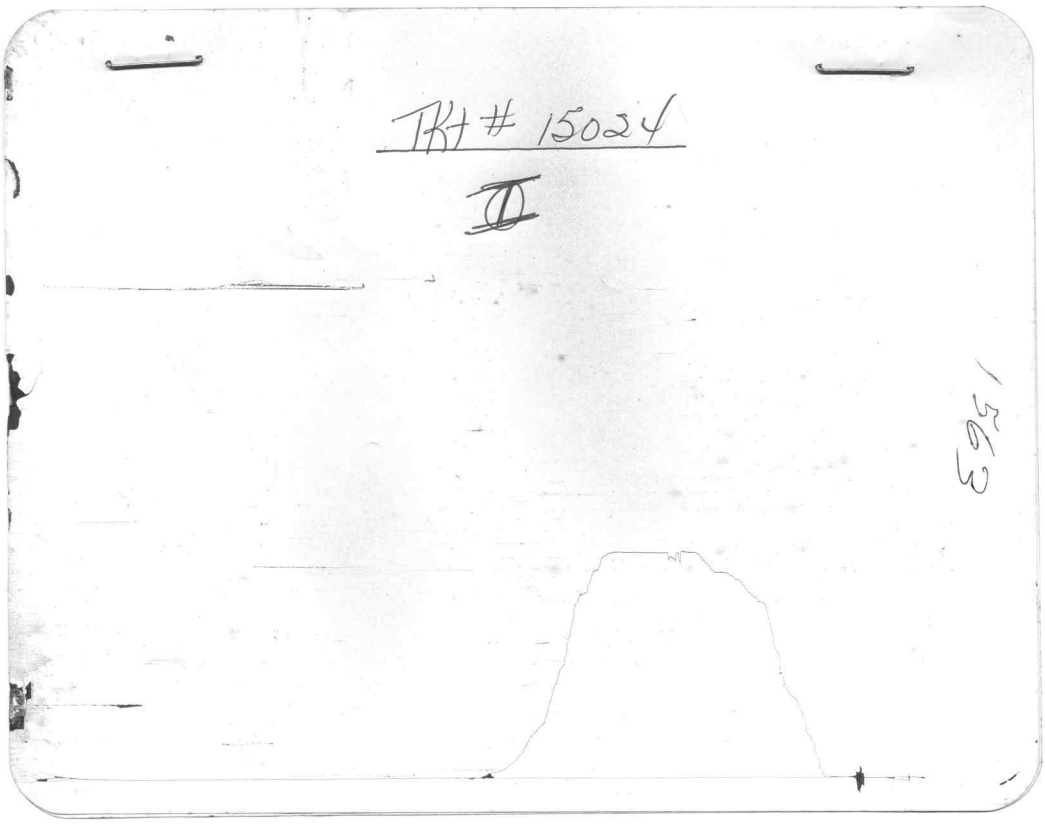
Initial Closed In Period ..... Minutes (D) P.S.I.

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

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

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

WTC-



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	MISRUN * NO PRESSURES AVAILABLE		PSI
(B)	First Initial Flow Pressure			PSI
(C)	First Final Flow Pressure			PSI
(D)	Initial Closed-in Pressure			PSI
(E)	Second Initial Flow Pressure			PSI
(F)	Second Final Flow Pressure			PSI
(G)	Final Closed-in Pressure			PSI
(H)	Final Hydrostatic Mud			PSI

COMPANY A. SCOTT RITCHIE LEASE AND WELL NO. PARKHURST #1 SEC. 9 TWP. 14S RGE. 13W TEST NO. 1 DATE 10/11 /81

WESTERN TESTERS

Home Office: Wichita, Kansas 67201

P.O. Box 1599 (316) 262-5861

Company A. Scott Ritchie Lease & Well No. Parkhurst #1

Elevation 1849 Kelly Bushing Formation Tarkio Sand Effective Pay - Ft. Ticket No. 15025

Date 10/ 12/81 Sec. 9 Twp. 14S Range 13W County Russell State Kansas

Test Approved by Jeff Christian Western Representative Cliff Scheuerman

Formation Test No. 2 Interval Tested from 2376 ft. to 2445 ft. Total Depth 2445 ft.

Packer Depth 2371 ft. Size 6 5/8 in. Packer Depth 2376 ft. Size 6 5/8 in.

Packer Depth - ft. Size - in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2381 ft. Recorder Number 1563 Cap. 4200

Bottom Recorder Depth (Outside) 2384 ft. Recorder Number 1562 Cap. 3900

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

Drilling Contractor Murfin Drilling Rig #19 Drill Collar Length - I. D. - in.

Mud Type starch Viscosity 38 Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss 13.6 cc. Drill Pipe Length 2356 I. D. 3.8 in.

Chlorides 60,000 P.P.M. Test Tool Length 20 ft. Tool Size 5½ in.

Jars: Make - Serial Number - Anchor Length 69 ft. Size 5½ 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 4½FH in.

Blow: MISRUN PACKER FAILURE

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) A.M. P.M. Time Started Off Bottom A.M. P.M. Maximum Temperature

Initial Hydrostatic Pressure ..... (A) 1281 P.S.I.

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

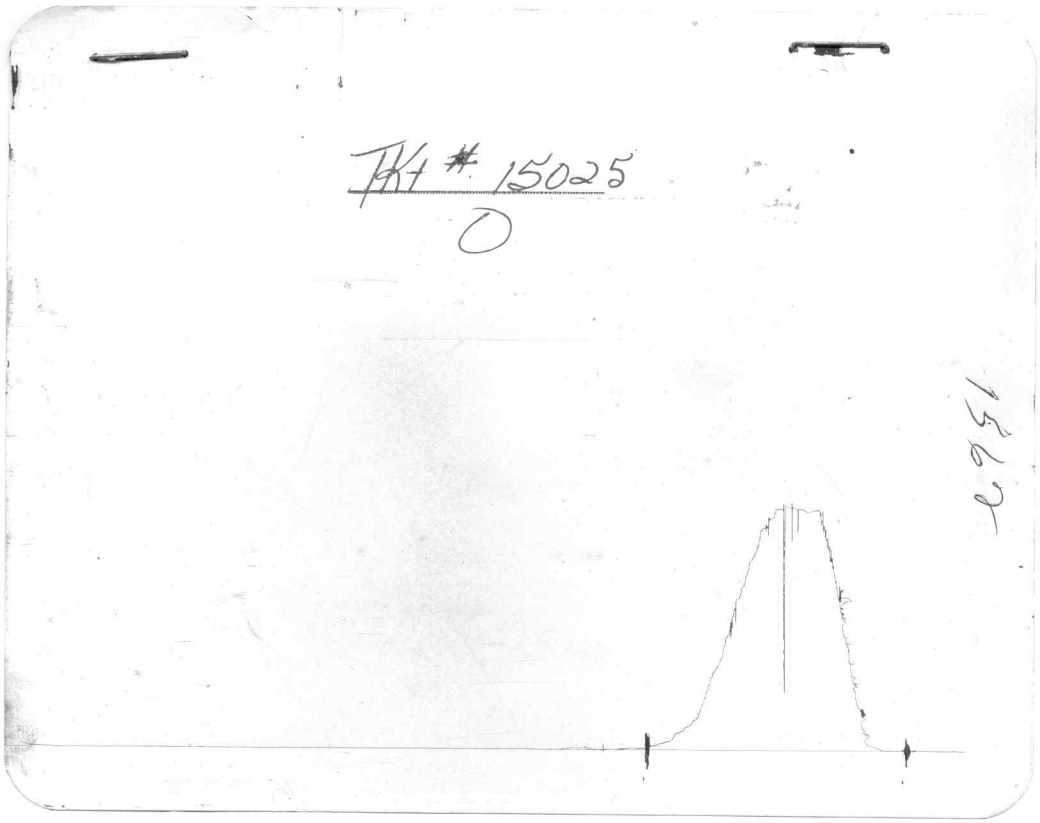
Initial Closed In Period ..... Minutes (D) - P.S.I.

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

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

Final Hydrostatic Pressure ..... (H) 1275 P.S.I.

COMPANY A. SCOTT RITCHIE LEASE AND WELL NO. PARKHURST #1 SEC. 9 TWP. 14S RGE. 13W TEST NO. 2 DATE 10/12



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	MISRUN	1281	PSI
(B)	First Initial Flow Pressure	-	-	PSI
(C)	First Final Flow Pressure	-	-	PSI
(D)	Initial Closed-in Pressure	-	-	PSI
(E)	Second Initial Flow Pressure	-	-	PSI
(F)	Second Final Flow Pressure	-	-	PSI
(G)	Final Closed-in Pressure	-	-	PSI
(H)	Final Hydrostatic Mud	-	1275	PSI

WESTERN TESTERS

Home Office: Wichita, Kansas 67201

P.O. Box 1599 (316) 262-5861

Company A. Scott Ritchie Lease & Well No. Parkhurst #1

Elevation 1849 Kelly Bushing Formation Tarkio Sand Effective Pay - Ft. Ticket No. 15026

Date 10/ 12/81 Sec. 9 Twp. 14S Range 13W County Russell State Kansas

Test Approved by Jeff Christian Western Representative Cliff Scheuerman

Formation Test No. 3 Interval Tested from 2331 ft. to 2445 ft. Total Depth 2445 ft.

Packer Depth	2326 ft. Size 6 5/8 in.	Packer Depth	2331 ft. Size 6 5/8 in.
Packer Depth	- ft. Size - in.	Packer Depth	- ft. Size - in.
Depth of Selective Zone Set	-		
Top Recorder Depth (Inside)	2335 ft.	Recorder Number	1563 Cap. 4200
Bottom Recorder Depth (Outside)	2338 ft.	Recorder Number	1562 Cap. 3900
Below Straddle Recorder Depth	- ft.	Recorder Number	- Cap. -
Drilling Contractor	Murfin Drilling Rig #19	Drill Collar Length	- I. D. - in.
Mud Type	starch Viscosity 41	Weight Pipe Length	- I. D. - in.
Weight	9.7 Water Loss 13.6 cc.	Drill Pipe Length	2356 I. D. 3.8 in.
Chlorides	60,000 P.P.M.	Test Tool Length	20 ft. Tool Size 5½ in.
Jars: Make	- Serial Number -	Anchor Length	114 ft. Size 5½ 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 4½FH in.

Blow: MISRUN

Recovered ft. of

Recovered ft. of

Recovered ft. of PACKER FAILURE

Recovered ft. of

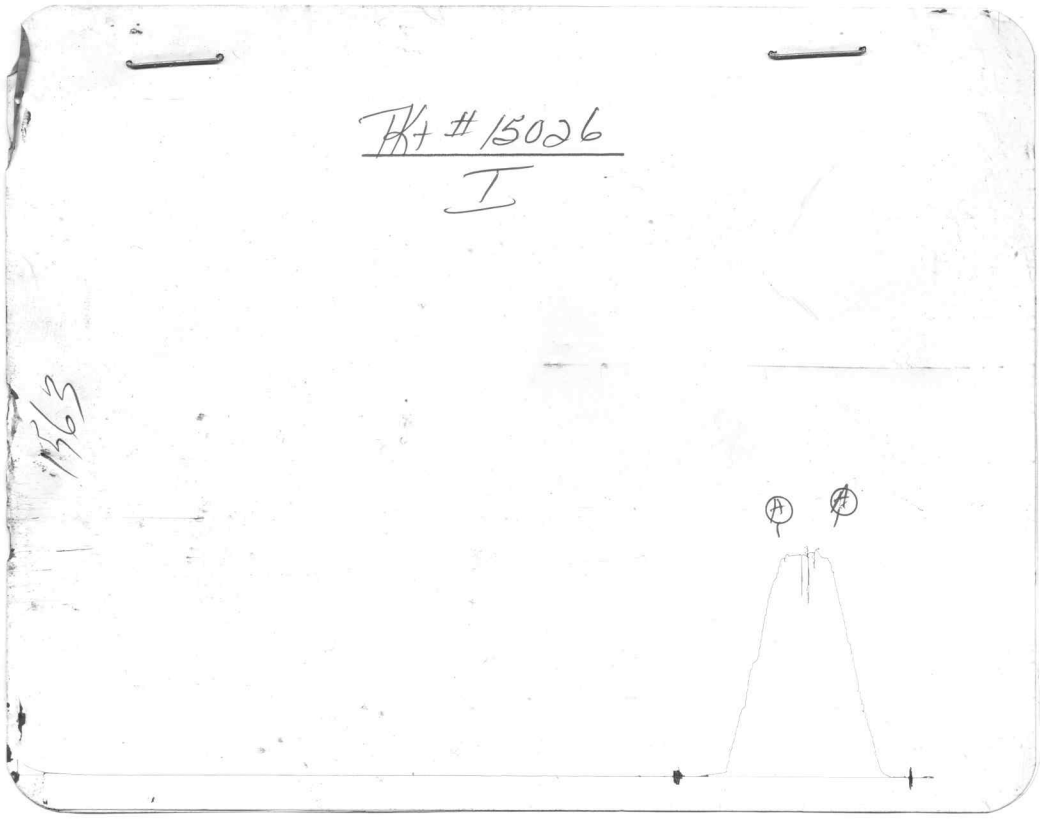
Recovered ft. of

Remarks:

Time Set Packer(s) A.M. P.M. Time Started Off Bottom A.M. P.M. Maximum Temperature

Initial Hydrostatic Pressure		(A) 1262	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	Minutes -	(E) - P.S.I. to (F) -	P.S.I.
Final Closed In Period	Minutes -	(G) -	P.S.I.
Final Hydrostatic Pressure		(H) 1234	P.S.I.

WTC-



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	MISRUN	1262	PSI
(B)	First Initial Flow Pressure	-	-	PSI
(C)	First Final Flow Pressure	-	-	PSI
(D)	Initial Closed-in Pressure	-	-	PSI
(E)	Second Initial Flow Pressure	-	-	PSI
(F)	Second Final Flow Pressure	-	-	PSI
(G)	Final Closed-in Pressure	-	-	PSI
(H)	Final Hydrostatic Mud	-	1234	PSI

COMPANY A. SCOTT RITCHIE LEASE AND WELL NO. PARKHURST #1 SEC. 9 TWP. 14S RGE. 13W TEST NO. 3 DATE 10/12 /81

Home Office: Wichita, Kansas 67201
P.O. Box 1599 (316) 262-5861

Company A. Scott Ritchie | Lease & Well No. Parkhurst #1

Elevation - | Formation Tarkio Sand | Effective Pay - Ft. | Ticket No. 12655

Date 10/ 13/81 | Sec. 9 | Twp. 14S | Range 13W | County Russell | State Kansas

Test Approved by Jeff Christian | Western Representative Ray Schwager-Greg Saffa

Formation Test No. 4 | Interval Tested from 2379 ft. to 2525 ft. | Total Depth 2525 ft.

Packer Depth 2374 ft. | Size 6 5/8 in. | Packer Depth - ft. | Size - in.

Packer Depth 2379 ft. | Size 6 5/8 in. | Packer Depth - ft. | Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2383 ft. | Recorder Number 1562 | Cap. 3900

Bottom Recorder Depth (Outside) 2386 ft. | Recorder Number 1563 | Cap. 4200

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

Drilling Contractor Murfin Drilling Rig #19 | Drill Collar Length 120 | I. D. 2.2 in.

Mud Type premix-my10 | Viscosity 44 | Weight Pipe Length - | I. D. - in.

Weight 9.8 | Water Loss 14.8 cc. | Drill Pipe Length 2257 | I. D. 3.8 in.

Chlorides 52,000 P.P.M. | Test Tool Length 22 ft. | Tool Size 4½ in.

Jars: Make - | Serial Number - | Anchor Length 146 ft. | Size 5½ 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 4½FH in.

Blow: Initial flow period fair building to strong blow. Final flow period strong blow throughout.

Recovered 320 ft. of gas cut muddy water few oil specks

Recovered ft. of last 120' very gassy

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 4:45 ~~A.M.~~ P.M. | Time Started Off Bottom 6:45 ~~A.M.~~ P.M. | Maximum Temperature 101°

Initial Hydrostatic Pressure			(A)	1327	P.S.I.	
Initial Flow Period	Minutes 30		(B)	156 P.S.I.	to (C)	151 P.S.I.
Initial Closed In Period	Minutes 30		(D)	594	P.S.I.	
Final Flow Period	Minutes 30		(E)	202 P.S.I.	to (F)	184 P.S.I.
Final Closed In Period	Minutes 30		(G)	566	P.S.I.	
Final Hydrostatic Pressure			(H)	1302	P.S.I.	

WTC-1

WESTERN TESTING CO., INC.
Pressure Data

Date 10/13/81 Test Ticket No. 12655

Recorder No. 1562 Capacity 3900 Location 2383 Ft.

Clock No. - Elevation --- Well Temperature 101 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1327	P.S.I.	Open Tool	4:45P M	
B	First Initial Flow Pressure	156	P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	151	P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	594	P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E	Second Initial Flow Pressure	202	P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F	Second Final Flow Pressure	184	P.S.I.			
G	Final Closed-in Pressure	566	P.S.I.			
H	Final Hydrostatic Mud	1302	P.S.I.			

PRESSURE BREAKDOWN

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

Point Mins.	Press.
P 1 0	156
P 2 5	156
P 3 10	156
P 4 15	156
P 5 20	152
P 6 25	151
P 7 30	151
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

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

Point Minutes	Press.
0	151
3	179
6	262
9	340
12	402
15	452
18	493
21	528
24	558
27	580
30	594

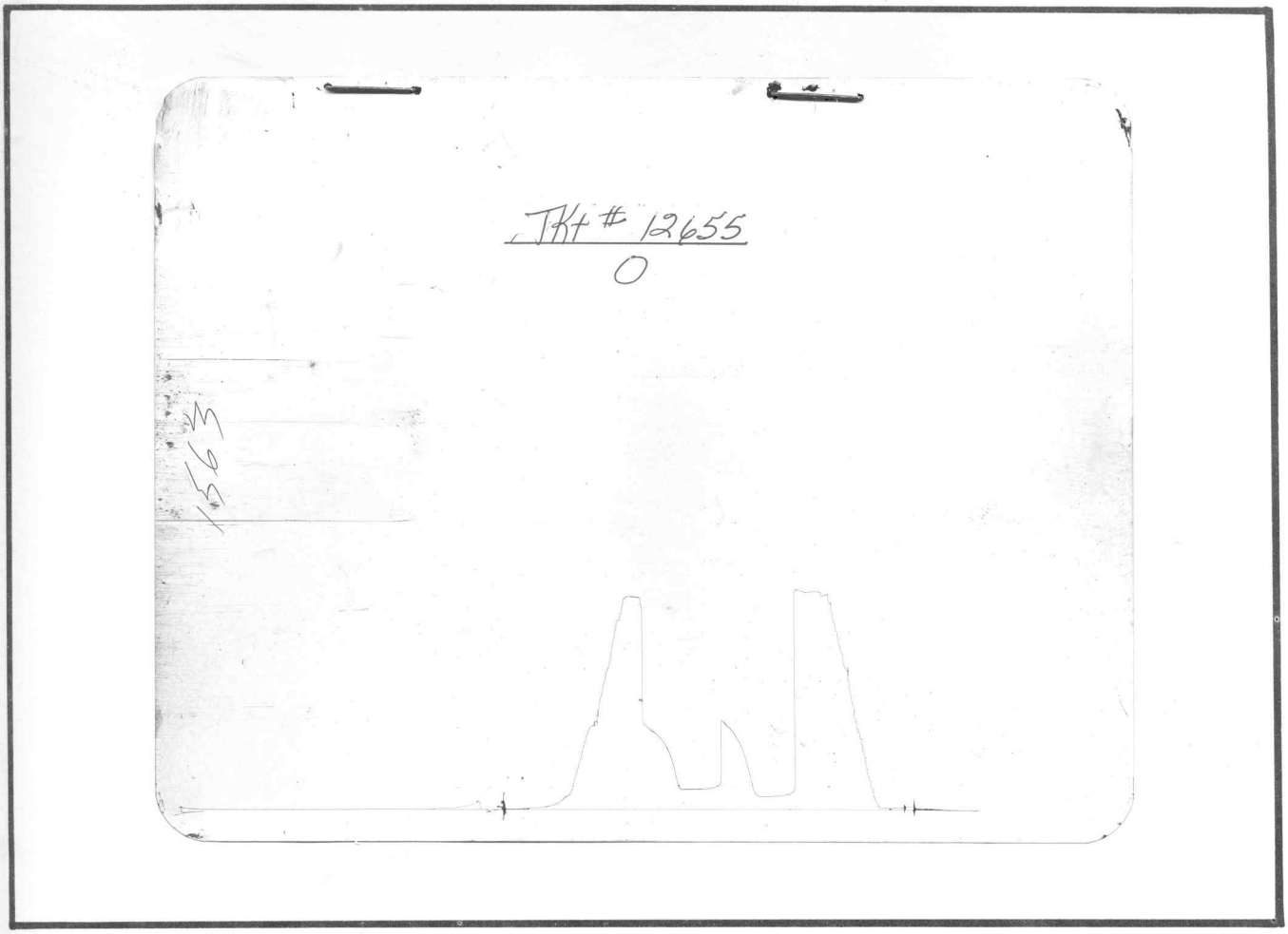
Second Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	202
5	202
10	192
15	188
20	185
25	184
30	184

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

Point Minutes	Press.
0	184
3	228
6	318
9	386
12	430
15	464
18	494
21	520
24	542
27	556
30	566

COMPANY A. SCOTT RITCHIE LEASE AND WELL NO. PARKHURST #1 SEC. 9 TWP. 14S RGE. 13W TEST NO. 4 DATE 10/13



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1332	1327	PSI
(B)	First Initial Flow Pressure	150	156	PSI
(C)	First Final Flow Pressure	150	151	PSI
(D)	Initial Closed-in Pressure	579	594	PSI
(E)	Second Initial Flow Pressure	180	202	PSI
(F)	Second Final Flow Pressure	180	184	PSI
(G)	Final Closed-in Pressure	549	566	PSI
(H)	Final Hydrostatic Mud	1302	1302	PSI