WESTERN TESTERS

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company A. L. Abercrombie Inc. Lease & Well No. Powell #2

Elevation 2576 Derrick Floor Formation Kansas City Effective Pay Ft. Ticket No. 17388

Date 4-18-73 Sec. 32 Twp. 1S Range 26W County Decatur State Kansas

Test Approved by Jack K. Wharton Western Representative Kenneth Cheney

Formation Test No. 1 O.K. X Misrun Interval Tested From 3374' to 3397' Total Depth 3397'

Size Main Hole 6 3/4" Rat Hole Conv. B.T. X Damaged Yes X No Conv. X B.T. Damaged Yes X No

Packer Depth 3369 Ft. Size 5 1/2" Packer Depth 3374 Ft. Size 5 1/2"

Straddle Yes No X Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 4 1/2" O.D. Tool Jt. Size 4 & 4½"F.H. Anchor Length 23 Ft. Size 4 1/2" O.D.

RECORDERS Depth 3389 Ft. Clock No. 9727 Depth 3393 Ft. Clock No. 6893

Top Make Kuster Cap 4150 No. 2604 Inside ~~Outside~~ Bottom Make Kuster Cap 4150 No. 1567 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap No. Inside Outside Bottom Make Cap No. Inside Outside

Time Set Packer 11:39 A.M

Tool Open I.F.P. From 11:40 M. to 11:45A M. Hr. 5 Min. From (B) 0 P.S.I. To (C) 0 P.S.I.

Tool Closed I.C.I.P. From 11:45 M. to 12:15P M. Hr. 30 Min. (D) 811 P.S.I.

Tool Open F.F.P. From 12:15 M. to 12:45P M. Hr. 30 Min. From (E) 12 P.S.I. To (F) 12 P.S.I.

Tool Closed F.C.I.P. From 12:45 M. to 1:15P. M. Hr. 30 Min. (G) 591 P.S.I.

Initial Hydrostatic Pressure (A) 1823 P.S.I. Final Hydrostatic Pressure (H) 1810 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/8 In.		M.	
			M.	
			M.	

BLOW Weak for 5 min. then died Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 3 feet oil cut mud

Reversed Out Yes X No Mud Type Chem. Viscosity 62 Weight 10.2 Water Loss 12.2 cc. Maximum Temp. 98° °F

Type Circ. Sub. Plug Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 1786 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1271 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 296 ft.

I.D. Drill Collars 2.7 in. Length D.S.T. Tool 44 ft.

Remarks Flush tool after 10 min. F.F.P.

WESTERN TESTING CO., INC.
Pressure Data

Date 4-18-73 Test Ticket No. 17388

Recorder No. 2604 Capacity 4150 Location 3393 Ft.

Clock No. 9727 Elevation 2576 Derrick Floor Well Temperature 98 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1823 P.S.I.	Open Tool	11:38 A. M	
B First Initial Flow Pressure	0 P.S.I.	First Flow Pressure	5 Mins.	5 Mins.
C First Final Flow Pressure	0 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	811 P.S.I.	Second Flow Pressure	30 Mins.	32 Mins.
E Second Initial Flow Pressure	12 P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F Second Final Flow Pressure	12 P.S.I.			
G Final Closed-in Pressure	591 P.S.I.			
H Final Hydrostatic Mud	1810 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 1 Inc. of 5 mins. and a final inc. of 0 Min.

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

Second Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 2 Min.

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

Point	First Flow Pressure Mins.	First Flow Pressure Press.	Initial Shut-In Minutes	Initial Shut-In Press.	Second Flow Pressure Minutes	Second Flow Pressure Press.	Final Shut-In Minutes	Final Shut-In Press.
P 1	0	0	0	0	0	12	0	12
P 2	5	0	3	7	5	12	3	16
P 3			6	14	10	12	6	21
P 4			9	100	15	12	9	38
P 5			12	271	20	12	12	74
P 6			15	437	25	12	15	146
P 7			18	571	30	12	18	253
P 8			21	663	32	12	21	363
P 9			24	738			24	463
P10			27	786			27	548
P11			30	811			30	591
P12								
P13								
P14								
P15								
P16								
P17								
P18								
P19								
P20								

This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2000	1823	PSI
(B)	First Initial Flow Pressure	0	0	PSI
(C)	First Final Flow Pressure	0	0	PSI
(D)	Initial Closed-in Pressure	815	811	PSI
(E)	Second Initial Flow Pressure	10	12	PSI
(F)	Second Final Flow Pressure	10	12	PSI
(G)	Final Closed-in Pressure	596	591	PSI
(H)	Final Hydrostatic Mud	1947	1810	PSI

COMPANY A. L. Abercrombie Inc. LEASE AND WELL NO. Powell #2 SEC. 32 TWP. 1S RGE. 26W TEST NO. 1 DATE 4-18-73

WESTERN TESTERS

Home Office: Great Bend, Kansas

P. O. Box 793 (316) 793-7903

Company A. L. Abercrombie Inc. Lease & Well No. Powell #2

Elevation 2576 Derrick Floor Formation Kansas City Effective Pay Ft. Ticket No. 17390

Date 4-19-73 Sec. 32 Twp. 1S Range 26W County Decatur State Kansas

Test Approved by Jack K. Wharton Western Representative Kenneth Cheney

Formation Test No. 2 O.K. X Misrun Interval Tested From 3394 to 3410' Total Depth 3410'

Size Main Hole 6 3/4" Rat Hole Conv. B.T. X Damaged Yes X No Conv. X B.T. Damaged Yes X No

Packer Depth 3389 Ft. Size 5 1/2" Packer Depth 3394 Ft. Size 5 1/2"

Straddle Yes No X Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 4 1/2" O.D. Tool Jt. Size 4 & 4½" F.H. Anchor Length 16 Ft. Size 4 1/2" O.D.

RECORDERS Depth 3403 Ft. Clock No. 9727 Depth 3406 Ft. Clock No. 6893

Top Make Kuster Cap 4150 No. 2604 Inside ~~Outside~~ Bottom Make Kuster Cap 4150 No. 1567 ~~Inside~~ Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap No. Inside Outside Bottom Make Cap No. Inside Outside

Time Set Packer 1:12 A. M

Tool Open I.F.P. From 1:15 M. to 1:20A. M. Hr. 5 Min. From (B) 27 P.S.I. To (C) 17 P.S.I.

Tool Closed I.C.I.P. From 1:20 M. to 1:50A. M. Hr. 30 Min. (D) 104 P.S.I.

Tool Open F.F.P. From 1:50 M. to 2:20A. M. Hr. 30 Min. From (E) 17 P.S.I. To (F) 17 P.S.I.

Tool Closed F.C.I.P. From 2:20 M. to 2:50A. M. Hr. 30 Min. (G) 40 P.S.I.

Initial Hydrostatic Pressure (A) 1869 P.S.I. Final Hydrostatic Pressure (H) 1869 P.S.I.

SURFACE INFORMATION	Size Choke 3/8 In.	Max. Press. P.S.I.	Time	Description of Flow
			M.	
			M.	
			M.	

BLOW Weak for 5 min. then died Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 2 feet of oil cut mud

Reversed Out Yes X No Mud Type Chem. Viscosity 47 Weight 10.1 Water Loss 11 cc. Maximum Temp. 98 °F

Type Circ. Sub. Plug Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 1806 ft. I.D. Drill Pipe 3/8 in. Length Weight Pipe 1271 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 296 ft.

I.D. Drill Collars 2.7 in. Length D.S.T. Tool 37 ft.

Remarks

WESTERN TESTING CO., INC.

Pressure Data

Date 4-19-73 Test Ticket No. 17390

Recorder No. 2604 Capacity 4150 Location 3406 Ft.

Clock No. 9727 Elevation 2576 Derrick Floor Well Temperature 98 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1869 P.S.I.		Open Tool	1:12 A. M	
B	First Initial Flow Pressure	27 P.S.I.		First Flow Pressure	5 Mins.	5 Mins.
C	First Final Flow Pressure	17 P.S.I.		Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	104 P.S.I.		Second Flow Pressure	30 Mins.	30 Mins.
E	Second Initial Flow Pressure	17 P.S.I.		Final Closed-in Pressure	30 Mins.	30 Mins.
F	Second Final Flow Pressure	17 P.S.I.				
G	Final Closed-in Pressure	40 P.S.I.				
H	Final Hydrostatic Mud	1869 P.S.I.				

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 1 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	27
P 2	5	17
P 3		
P 4		
P 5		
P 6		
P 7		
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	17
	3	18
	6	19
	9	22
	12	26
	15	29
	18	35
	21	44
	24	61
	27	87
	30	104

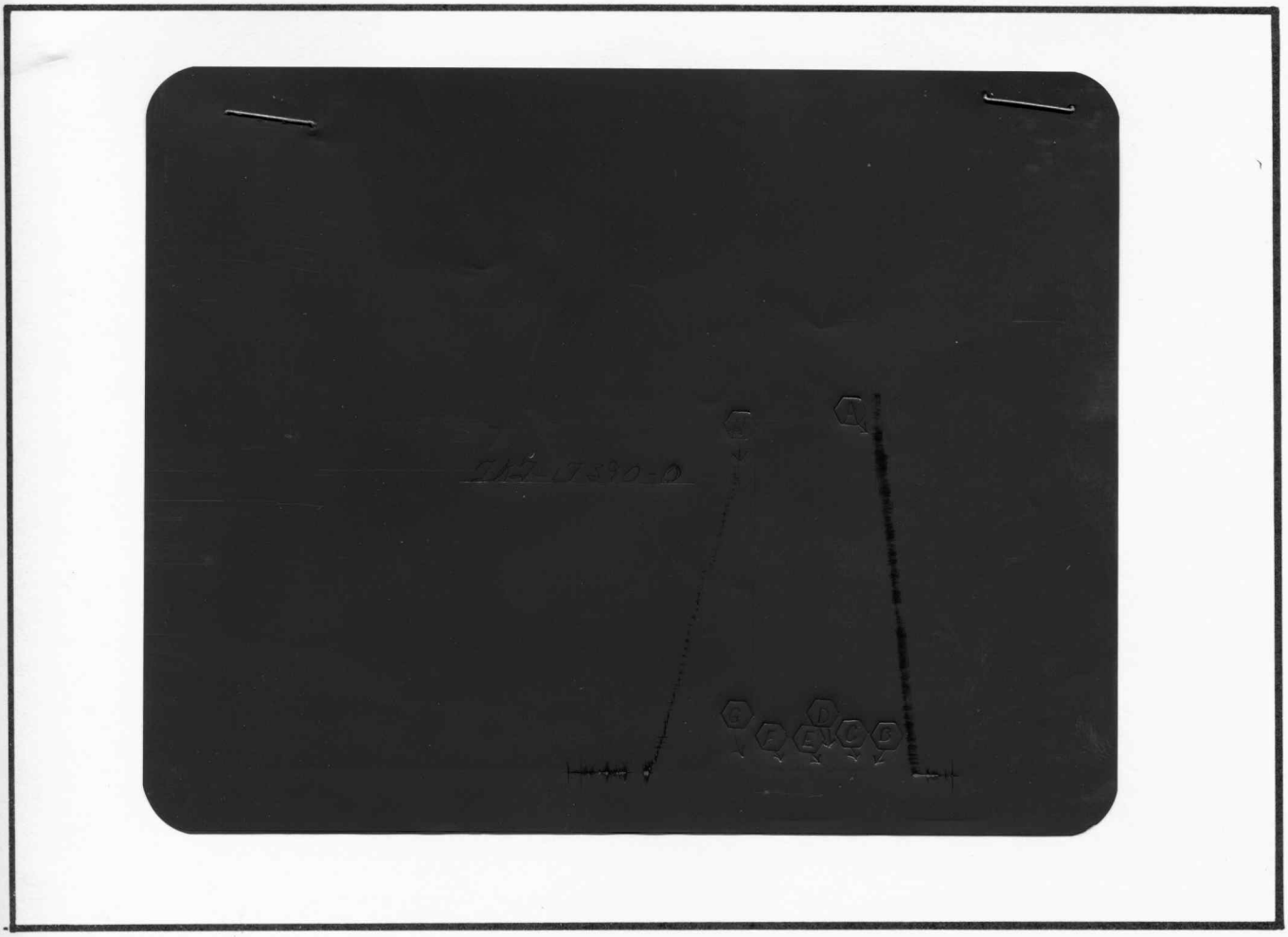
Second Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Minutes	Press.
	0	17
	5	17
	10	17
	15	17
	20	17
	25	17
	30	17

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

Point	Minutes	Press.
	0	17
	3	17
	6	17
	9	18
	12	18
	15	19
	18	21
	21	23
	24	27
	27	32
	30	40

COMPANY A. L. Abercrombie Inc. LEASE AND WELL NO. Powell #2 SEC. 32 TWP. 1S RGE. 26W TEST NO. 2 DATE 4-19-73



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2042	1869	PSI
(B)	First Initial Flow Pressure	31	27	PSI
(C)	First Final Flow Pressure	53	17	PSI
(D)	Initial Closed-in Pressure	106	104	PSI
(E)	Second Initial Flow Pressure	42	17	PSI
(F)	Second Final Flow Pressure	42	17	PSI
(G)	Final Closed-in Pressure	53	40	PSI
(H)	Final Hydrostatic Mud	2000	1869	PSI

WESTERN TESTERS

Home Office: Great Bend, Kansas
P. O. Box 793 (316) 793-7903

Company A. L. Abercrombie Inc. Lease & Well No. Powell #2

Elevation 2576 Derrick Floor Formation Kansas City Effective Pay Ft. Ticket No. 17391

Date 4-20-73 Sec. 32 Twp. 1S Range 26W County Decatur State Kansas

Test Approved by Jack K. Wharton Western Representative Jimmie Loftus

Formation Test No. 3 O.K. X Misrun Interval Tested From 3517' to 3540' Total Depth 3540'

Size Main Hole 6 3/4" Rat Hole Conv. B.T. X Damaged Yes X No Conv. X B.T. Damaged Yes X No

Packer Depth 3512 Ft. Size 5 1/2" Packer Depth 3517 Ft. Size 5 1/2"

Straddle Yes No X Conv. B.T. Damaged Yes No

Packer Depth Ft. Size

Tool Size 4 1/2" O.D. Tool Jt. Size 4" & 4½" F.H. Anchor Length 23 Ft. Size 4 1/2" O.D.

RECORDERS Depth 3533 Ft. Clock No. 9727 Depth 3536 Ft. Clock No. 6893

Top Make Kuster Cap 4150 No. 2604 Inside Outside Bottom Make Kuster Cap 4150 No. 1567 Inside Outside

Below Straddle: Depth Clock No. Inside Outside Depth Ft. Clock No. Inside Outside

Top Make Cap No. Inside Outside Bottom Make Cap No. Inside Outside

Time Set Packer 1:32 A.M

Tool Open I.F.P. From 1:35 M. to 1:45A M. Hr. 10 Min. From (B) 7 P.S.I. To (C) 9 P.S.I.

Tool Closed I.C.I.P. From 1:45 M. to 2:15A M. Hr. 30 Min. (D) 26 P.S.I.

Tool Open F.F.P. From 2:15 M. to 2:45A M. Hr. 30 Min. From (E) 9 P.S.I. To (F) 10 P.S.I.

Tool Closed F.C.I.P. From 2:45 M. to 3:15A. M. Hr. 30 Min. (G) 12 P.S.I.

Initial Hydrostatic Pressure (A) 1900 P.S.I. Final Hydrostatic Pressure (H) 1849 P.S.I.

SURFACE INFORMATION	Size Choke	Max. Press. P.S.I.	Time	Description of Flow
	3/8 In.		M.	
			M.	
			M.	

BLOW Weak for 4 min. then died Bottom Choke Size 3/4 In.

Did Well Flow Yes X No Recovery Total Ft. 5 feet mud

Reversed Out Yes X No Mud Type Chem. Viscosity 50 Weight 10.1 Water Loss 10.4 cc. Maximum Temp. 99 °F

Type Circ. Sub. Plug Safety Joint No Jars: Size Make Ser. No.

EXTRA EQUIPMENT: Dual Packers Yes Did Packer Hold? Yes Did Tool Plug? No Where?

Length Drill Pipe 1929 ft. I.D. Drill Pipe 3.8 in. Length Weight Pipe 1271 ft. I.D. Weight Pipe 2.7 in. Length Drill Collars 296 ft.

I.D. Drill Collars 2.7[illegible] in. Length D.S.T. Tool 44 ft.

Remarks Flushed tool after 10 min. F.F.P.

FORM WTC 3

WESTERN TESTING CO., INC.
Pressure Data

Date 4-20-73 Test Ticket No. 17391

Recorder No. 2604 Capacity 4150 Location 3533 Ft.

Clock No. 9727 Elevation 2576 Derrick Floor Well Temperature 99 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1900	P.S.I.	Open Tool	1:32 A. M	
B	First Initial Flow Pressure	7	P.S.I.	First Flow Pressure	10 Mins.	10 Mins.
C	First Final Flow Pressure	9	P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D	Initial Closed-in Pressure	26	P.S.I.	Second Flow Pressure	30 Mins.	30 Mins.
E	Second Initial Flow Pressure	9	P.S.I.	Final Closed-in Pressure	30 Mins.	30 Mins.
F	Second Final Flow Pressure	10	P.S.I.			
G	Final Closed-in Pressure	12	P.S.I.			
H	Final Hydrostatic Mud	1849	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 2 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	7
P 2	5	7
P 3	10	9
P 4		
P 5		
P 6		
P 7		
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.
P 1	0	9
P 2	3	9
P 3	6	10
P 4	9	11
P 5	12	12
P 6	15	13
P 7	18	15
P 8	21	19
P 9	24	22
P10	27	24
P11	30	26
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

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

Point	Minutes	Press.
P 1	0	9
P 2	5	9
P 3	10	12
P 4	15	10
P 5	20	10
P 6	25	10
P 7	30	10
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

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

Point	Minutes	Press.
P 1	0	10
P 2	3	10
P 3	6	10
P 4	9	10
P 5	12	10
P 6	15	10
P 7	18	10
P 8	21	10
P 9	24	10
P10	27	11
P11	30	12
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	1947	1900	PSI
(B)	First Initial Flow Pressure	10	7	PSI
(C)	First Final Flow Pressure	10	9	PSI
(D)	Initial Closed-in Pressure	21	26	PSI
(E)	Second Initial Flow Pressure	10	9	PSI
(F)	Second Final Flow Pressure	10	10	PSI
(G)	Final Closed-in Pressure	10	12	PSI
(H)	Final Hydrostatic Mud	1821	1849	PSI

COMPANY A. L. Abercrombie Inc. LEASE AND WELL NO. Powell #2 SEC. 32 TWP. 1S RGE. 26W TEST NO. 3 DATE 4-20-73