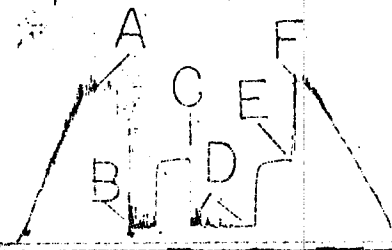


First Flow	30 Minutes	 BOMIN TESTING BOX 762 LIBERAL, KANSAS	Date	4/9/78	LOCATION 17-22-35
First CIP	30 Minutes		Ticket No.	4698	
Second Flow	60 Minutes		DISTRICT		
Second CIP	30 Minutes		Kind of Job	Open Hole	
Depth Top Gauge	4380 Ft.	Blanked Off	No	CONTRACTOR R & W Rig #2	
Recorder No.	9623	12 Hr. Clock		HOLE & TOOL DATA	
Pressure Readings	Field	Office Corrected		Elevation	Top Packer Depth
					4370
Initial Hydro Mud Pressure	A-2177	2232		Total Depth	Bottom Packer Depth
				4483	4370
First Flow	B-271-244	201-228		Casing or Hole Size	Size & Type Wall Packer
				7 7/8	6 3/4 BT
First CIP	C-1168	1161		Liner or Rathole Size	Size Bottom Choke
					1/2"
Second Flow	D-271-217	228-228		Interval Tested	Size Surface Choke
				4370-4483	1"
Second CIP	E-1168	1142		Formation Tested	ID & Length Drill Collars
					2 1/4 x 482 4 1/2 H90
Final Hydro Mud Pressure	F-2122	2205		Est. Gauge Depth Temp.	Size Drill Pipe
				113	4 1/2 FH
Depth Bottom Gauge	4480 Ft.	Blanked Off	Yes	MUD DATA Weight	Viscosity
				9.6	44
Recorder No.	1552	24 Hr. Clock		All depths measured from	No. Folders Reproduced
				KB	
Pressure Readings	Field	Office Corrected		REMARKS: Open tool 30 min. preflow w/ weak blow. Close tool 60 min. ICIP. Open tool 60 min. w/weak blow, no gas to surface. Close tool 30 min. FCIP.	
Initial Hydro Mud Pressure					
First Flow					
First CIP					
Second Flow					
Second CIP					
Final Hydro Mud Pressure					
Recovered 930 Feet of salty muddy water					
Recovered Feet of					
Recovered Feet of					
Recovered Feet of					
Witnessed By					
Amount-Type of Cushion				Tester Archie Farrand	

Smith
 Lease Name
 Well No. 1
 Test No. 1
 J. A. Allinson
 Lease Owner
 Owners District

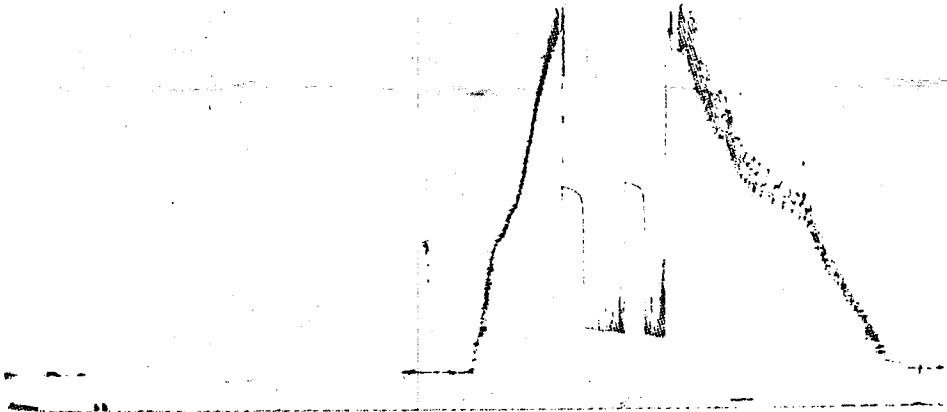
43/U-4483

K3- nec4623
TKC 4698



4698

Rec 1552
TKC 4698



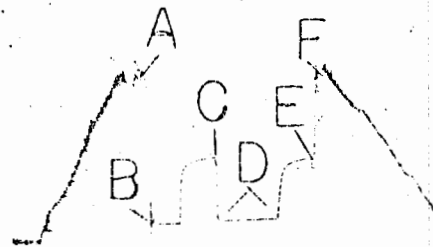
First Flow	30 Minutes	bomin BOMIN TESTING BOX 782 LIBERAL, KANSAS	Date	4/11/78	LOCATION 17-22-35	
First CIP	30 Minutes		Ticket No.	4689		
Second Flow	60 Minutes		DISTRICT	Liberal		
Second CIP	30 Minutes		Kind of Job	Open Hole		
Depth Top Gauge	4500 Ft.	Blanked Off	No	CONTRACTOR		R & W Rig #2
Recorder No.	9623	12 Hr. Clock		HOLE & TOOL DATA		
Pressure Readings	Field	Office Corrected		Elevation	Top Packer Depth	4494
Initial Hydro Mud Pressure	A-2314	2298		Total Depth	Bottom Packer Depth	4494
First Flow	B-190-190	174-179		Casing or Hole Size	Size & Type Wall Packer	6 3/4 BT
First CIP	C-1141	1095		Liner or Rathole Size	Size Bottom Choke	1/2"
Second Flow	D-190-190	209-217		Interval Tested	Size Surface Choke	1"
Second CIP	E-1032	1049		Formation Tested	ID & Length Drill Collars	2 1/4 x 512 4 1/2 H90
Final Hydro Mud Pressure	F-2314	2254		Est. Gauge Depth Temp.	Size Drill Pipe	114 4 1/2 FH
Depth Bottom Gauge	4539 Ft.	Blanked Off	Yes	MUD DATA Weight	Viscosity	9.5 45
Recorder No.	1552	24 Hr. Clock		All depths measured from	No. Folders Reproduced	KB
Pressure Readings	Field	Office Corrected		REMARKS: Open test tool 30 min. w/fair		
Initial Hydro Mud Pressure				blow. Close tool 30 min. ICIP. Open		
First Flow				tool 60 min. FF w/fair blow. Decreasing		
First CIP				no gas to surface. Close tool 30 min.		
Second Flow				FCIP.		
Second CIP						
Final Hydro Mud Pressure						
Recovered	183	Feet of	gas cut mud			
Recovered	494	Feet of	heavy gas & oil cut mud			
Recovered		Feet of				
Recovered		Feet of				
Witnessed By						
Amount-Type of Cushion			Tester Archie Farrand			

Smith
 Lease Name
 1
 Well No.
 3
 Test No.
 J. A. Allison
 Lease Owner
 Owners District

4494-4540

STATE Kansas

Rec 4698
TKC 4689



4689

COMPANY J.A. Allison
 WELL # Sr. #1
 FIELD Kenny W/C
 COUNTY Kenny
 STATE IL

Quantitative Log Interpretation

This interpretation represents our best judgement. However, because all log analysis is based on best assumptions and empirical relationships, we cannot guarantee the accuracy of these figures. For this reason, we must disclaim any responsibility for any loss or expense which results from the use of this interpretation.

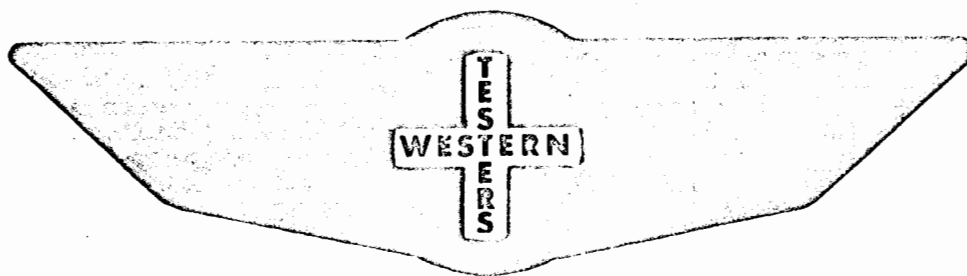


Point No.	Depth	ΔT	Φ _{AL}	D _B	Φ _D	Φ _L	R _W	R _T	R _{WA}	S _W	Remarks	References
1	4532-36			25	22	.05	7			38	4532-36 Sand	ΔT _M =
2	4886-90			25	22		7			38	"	ΔT _F =
3	4896-90				19		7			47	M.S.S	D _G =
4	4990-94				15		16			47	"	D _F =
5	4994-58				13.5		12			48	"	
6	4530-32					.11	50			29	50% John Chert/ice	EQUATIONS
7	4514-16				12		19			43	John	
8	4498-94				12.5		12			52	Bayer	
9	4492-84				13		23			39	"	
BARIOWS Calculations												CHART MANUAL PAGE REFERENCE
	770-74				20					35		7. 45 74 21 ft)
	74-80				20					40		
	80-88				20					37		
	90-94				19					42		
	96-4800				17 1/2					32	Tested top Packer	
												OTHER

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P. O. Box 1599

Phone (316) 838-0601

NOMENCLATURE

b	== Approximate Radius of Investigation	Feet
b¹	== Approximate Radius of Investigation (Net Pay Zone h ¹)	Feet
D.R.	== Damage Ratio	—
EI	== Elevation	Feet
GD	== B.T. Gauge Depth (From Surface Reference)	Feet
h	== Interval Tested	Feet
h¹	== Net Pay Thickness	Feet
K	== Permeability	md
K¹	== Permeability (From Net Pay Zone h ¹)	md
m	== Slope Extrapolated Pressure Plot (Psi ² /cycle Gas)	psi/cycle
OF¹	== Maximum Indicated Flow Rate	MCF/D
OF²	== Minimum Indicated Flow Rate	MCF/D
OF³	== Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
OF⁴	== Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
P^S	== Extrapolated Static Pressure	Psig.
P^F	== Final Flow Pressure	Psig.
P^{OT}	== Potentiometric Surface (Fresh Water*)	Feet
Q	== Average Adjusted Production Rate During Test	bbls/day
Q¹	== Theoretical Production w/Damage Removed	bbls/day
Q^g	== Measured Gas Production Rate	MCF/D
R	== Corrected Recovery	bbls
r^w	== Radius of Well Bore	Feet
t	== Flow Time	Minutes
t^o	== Total Flow Time	Minutes
T	== Temperature Rankine	°R
Z	== Compressibility Factor	—
u	== Viscosity Gas or Liquid	CP
Log	== Common Log	

* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100° F.



Home Office: Wichita, Kansas 67201

P. O. Box 1599

(316) 838-0601

Company J.A. Allison

Lease & Well No.

Smith #1

Elevation - Formation Morrow Effective Pay - Ft. Ticker No. 22867

Date 4-15-78 Sec. 17 Twp. 22S Range 35W County Kearney State Kansas

Test Approved by R.J. Gill Western Representative Ken Metzler

Formation Test No. 4 O.K. - Misrun X Interval Tested From 4796' to 4867' Total Depth 5017

Size Main Hole 7 7/8 Rat Hole 12 1/4 Conv. X B.T. - Damaged - Yes X No Conv. - B.T. X Damaged X Yes - No

Top Packer Depth 4796 Ft. Size 6 3/4 Bottom Packer Depth 4867 Ft. Size 6 3/4

Straddle Yes Conv. X B.T. - Damaged - Yes X No Packer Depth - Ft. Size -

Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 71 Between 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4300 Ft. Clock No. 6897 Depth 4803 Ft. Clock No. 8378

Top Make Kuster Cap 4150 No. 2608 Inside Outside Bottom Make Kuster Cap 4000 No. 3473 Inside Outside

Below Straddle: Depth 5017 Rec. No. WTC Clock No. 49 Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside

Time Set Packer 12:42A. M

Tool Open I.F.P. From 12:45A M. to 1:15A M. - Hr. 30 Min. From (B) 50 P.S.I. To (C) 106 P.S.I.

Tool Closed I.C.I.P. From 1:15A M. to 1:45A M. - Hr. 30 Min (D) 1012 P.S.I.

Tool Open F.F.P. From 1:45A M. to 2:45A M. 1 Hr. - Min. From (E) 125 P.S.I. To (F) 121 P.S.I.

Tool Closed F.C.I.P. From 2:45A M. to 3:15A M. 1 Hr. 30 Min. (G) 857 P.S.I.

Initial Hydrostatic Pressure (A) 2571 P.S.I. Final Hydrostatic Pressure (H) 2519 P.S.I. Maximum Temp. -

INFORMATION

BLOW Fair blow throughout test.

Did Well Flow - Yes X No Recovery Total Fr. 210' of mud with a trace of oil.

Reversed Out - Yes X No Mud Type Starch Viscosity 52 Weight 9.6 Water Loss 9.6 cc. Chlorides 43,000 PPM

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint Yes Jars: Size - In. Make - Ser. No. -

Dual Packer Yes Did Packers Hold? Yes/NO Did Tool Plug? No Where? -

DRILLING CONTRACTOR Rains & Williamson (#2) Length Drill Pipe 4617 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 246 Ft. I.D. Drill Collars 2.26 In.

Tool Joint Size 4 1/2 FH In. Length D.S.T. Tool 79 Ft.

Remarks: Straddle test: 150' of tail pipe, 71' between packers

Some plugging action on initial flow period. Bottom packer did not hold.

WESTERN TESTING CO., INC.

Pressure Data

22867

Date 4/15/78 Recorder No. 2608 Capacity 4150 Test Ticket No. 22867 Location 4800 Ft.

Clock No. 6897 Elevation ----- Well Temperature ----- °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2571 P.S.I.	Open Tool	12:42A	M
B First Initial Flow Pressure	50 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	106 P.S.I.	Initial Closed-in Pressure	30 Mins.	30 Mins.
D Initial Closed-in Pressure	1012 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	125 P.S.I.	Final Closed-in Pressure	30 Mins.	33 Mins.
F Second Final Flow Pressure	121 P.S.I.			
G Final Closed-in Pressure	857 P.S.I.			
H Final Hydrostatic Mud	2519 P.S.I.			

PRESSURE BREAKDOWN

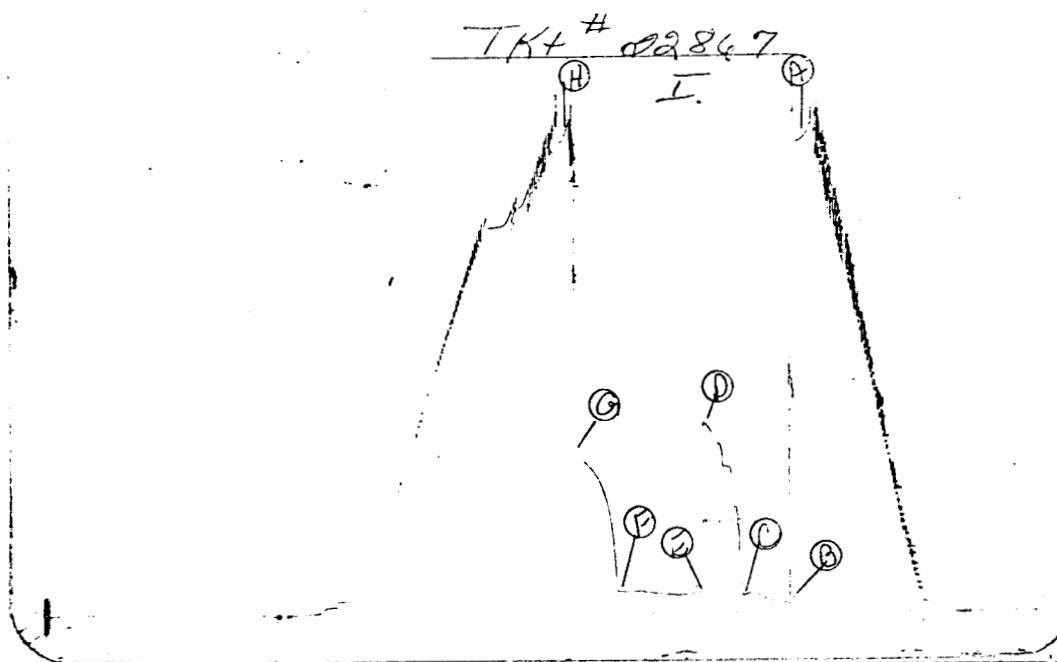
First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

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

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

Final Shut-In
Breakdown: 11 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	50	0	106	0	125	0	121
P 2 5	64	3	337	5	108	3	314
P 3 10	64	6	568	10	106	6	483
P 4 15	75	9	698	15	102	9	582
P 5 20	92	12	779	20	102	12	650
P 6 25	98	15	878	25	106	15	702
P 7 30	106	18	928	30	107	18	739
P 8		21	942	35	110	21	772
P 9		24	990	40	114	24	797
P 10		27	1012	45	123	27	818
P 11		30		50	116	30	839
P 12				55	119	33	857
P 13				60	121		
P 14							
P 15							
P 16							
P 17							
P 18							
P 19							
P 20							



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2515	2571	PSI
(B) First Initial Flow Pressure	42	50	PSI
(C) First Final Flow Pressure	94	106	PSI
(D) Initial Closed-in Pressure	1017	1012	PSI
(E) Second Initial Flow Pressure	114	125	PSI
(F) Second Final Flow Pressure	114	121	PSI
(G) Final Closed-in Pressure	851	857	PSI
(H) Final Hydrostatic Mud	2494	2519	PSI