Company A. SCOTT RITCHIE Lease and Well No. #1 BOND Sec. 23 Twp. 14S Rge. 13W Test No. 1 Date 3/11/84

FORMATION TEST REPORT



Home Office:

P.O. Box 1599

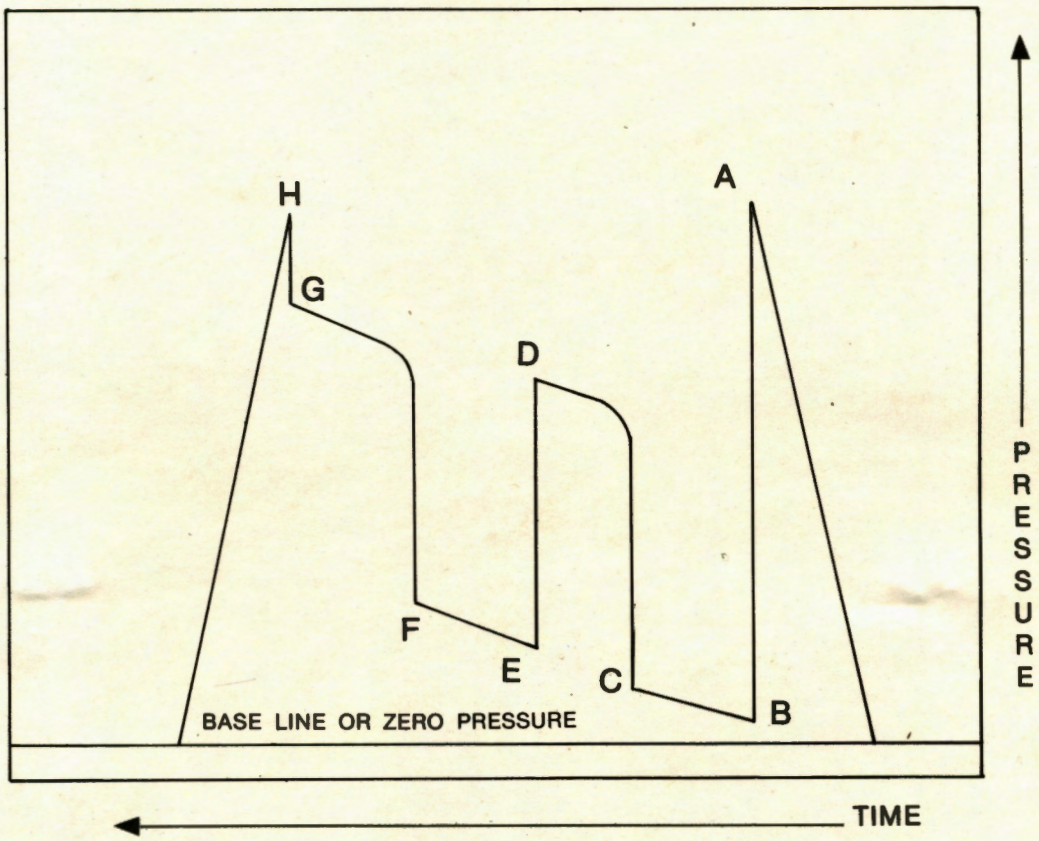
Wichita, Kansas 67201

Phone (316) 262-5861

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.

AK-1 Recorders



A - Initial Hydrostatic
B - First Initial Flow
C - First Final Flow
D - Initial Shut-In
E - Second Initial Flow
F - Second Final Flow
G - Final Shut-In
H - Final Hydrostatic

Company A. SCOTT RITCHIE Lease and Well No. #1 BOND Sec. 23 Twp. 14S Rge. 13W Test No. 1 Date 3/11/84

FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

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

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 3/11/84 TICKET #4667
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 1 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: TARKIO
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

INTERVAL TEST FROM: 2303 FT TO: 2355 FT TOTAL DEPTH: 2355 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2303 FT SIZE: 6 3/4 IN PACKER DEPTH: FT SIZE: IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER DRLG
MUD TYPE: GEL VISCOSITY: 32
WEIGHT: 9.8 WATER LOSS (CC):
CHLORIDES (P.P.M.): 80000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?
DRILL COLLAR LENGTH: FT I.D.: IN
WEIGHT PIPE LENGTH: 993 FT I.D.: 2.7 IN
DRILL PIPE LENGTH: 1294 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 16 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 52 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: STRONG BLOW OFF BOTTOM THROUGHOUT TEST.

RECOVERED:	1152	FT	OF:	GAS ABOVE FLUID.
RECOVERED:	60	FT	OF:	95% OIL; 5% GAS.
RECOVERED:	120	FT	OF:	40% OIL; 50% GAS; 10% MUD.
RECOVERED:	60	FT	OF:	35% OIL; 50% GAS; 15% MUD.
RECOVERED:	120	FT	OF:	15% OIL; 20% GAS; 65% MUD.
RECOVERED:	10	FT	OF:	25% OIL; 10% GAS; 65% MUD.
RECOVERED:	180	FT	OF:	5% OIL; 15% GAS; 80% WATER.
RECOVERED:	300	FT	OF:	5% OIL; 20% GAS; 75% WATER.
RECOVERED:		FT	OF:	CHLORIDES 91000 PPM.

REMARKS: SLID TOOL 5 FEET TO BOTTOM.
OUTSIDE RECORDER SHOWS PLUGGED.

TIME SET PACKER(S): 4:55 AM TIME STARTED OFF BOTTOM: 8:55 AM
WELL TEMPERATURE: 86 'F

INITIAL HYDROSTATIC PRESSURE:		(A) 1245	PSI
INITIAL FLOW PERIOD	MIN: 60	(B) 100	PSI TO (C) 234 PSI
INITIAL CLOSED IN PERIOD	MIN: 60	(D) 672	PSI
FINAL FLOW PERIOD	MIN: 60	(E) 262	PSI TO (F) 332 PSI
FINAL CLOSED IN PERIOD	MIN: 60	(G) 662	PSI
FINAL HYDROSTATIC PRESSURE		(H) 1229	PSI

WESTERN TESTING CO. INC.
PRESSURE DATA

DATE: 3/11/84 TICKET #4667
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 1 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: TARKIO
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

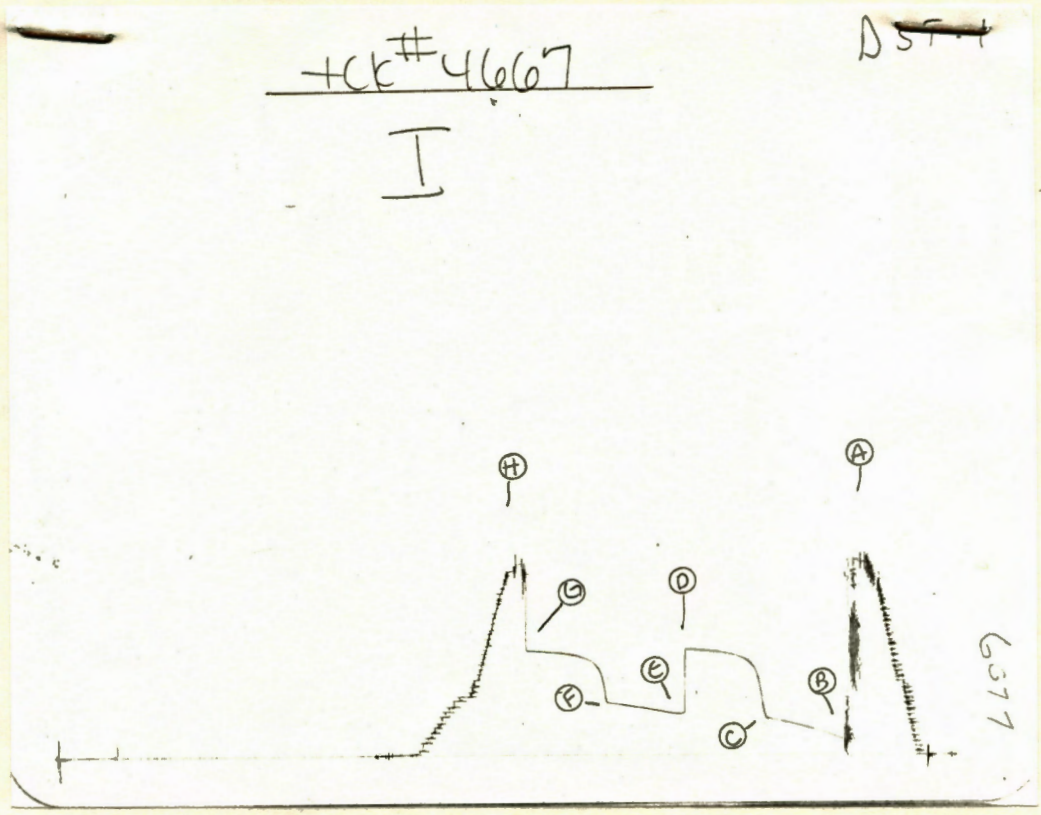
(A)	INITIAL HYDROSTATIC PRESSURE:	1245	PSI
(B)	FIRST INITIAL FLOW PRESSURE:	100	PSI
(C)	FIRST FINAL FLOW PRESSURE:	234	PSI
(D)	INITIAL CLOSED-IN PRESSURE:	672	PSI
(E)	SECOND INITIAL FLOW PRESSURE:	262	PSI
(F)	SECOND FINAL FLOW PRESSURE:	332	PSI
(G)	FINAL CLOSED-IN PRESSURE:	662	PSI
(H)	FINAL HYDROSTATIC PRESSURE:	1229	PSI
WELL TEMPERATURE:		86	'F

OPEN TOOL: 4:55 AM

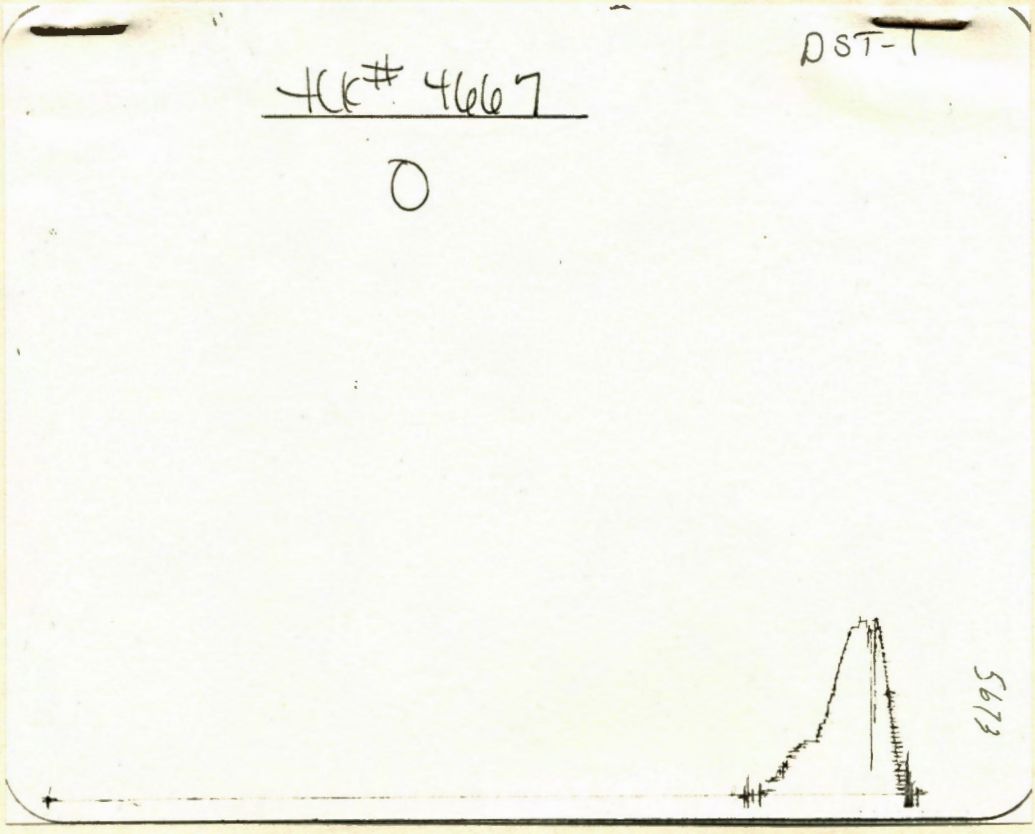
	TIME - GIVEN		TIME - ACTUAL	
FIRST FLOW PRESSURE:	60	MIN	60	MIN
INITIAL CLOSED-IN PRESSURE:	60	MIN	60	MIN
SECOND FLOW PRESSURE:	60	MIN	60	MIN
FINAL CLOSED-IN PRESSURE:	60	MIN	60	MIN

PRESSURE BREAKDOWN

	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
PT	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	100	0	234	0	262	0	332
2	5	103	3	369	5	262	3	470
3	10	119	6	500	10	269	6	546
4	15	136	9	562	15	277	9	577
5	20	151	12	589	20	286	12	598
6	25	164	15	608	25	292	15	611
7	30	176	18	620	30	300	18	618
8	35	189	21	629	35	305	21	625
9	40	199	24	635	40	313	24	632
10	45	208	27	641	45	319	27	638
11	50	217	30	646	50	324	30	642
12	55	226	33	650	55	330	33	645
13	60	234	36	654	60	332	36	648
14			39	657			39	650
15			42	660			42	652
16			45	663			45	654
17			48	665			48	656
18			51	667			51	658
19			54	669			54	660
20			57	671			57	661
21			60	672			60	662
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23								
24								
25								
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Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

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

Company A. SCOTT RITCHIE Lease and Well No. #1 BOND Sec. 23 Twp. 14S Rge. 13W Test No. 2 Date 3/11/84

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 3/11/84 TICKET #4668
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 2 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: TARKIO
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

INTERVAL TEST FROM: 2378 FT TO: 2429 FT TOTAL DEPTH: 2429 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2373 FT SIZE: 6 3/4 IN PACKER DEPTH: 2378 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER DRLG
MUD TYPE: GEL VISCOSITY: 36
WEIGHT: 9.8 WATER LOSS (CC):
CHLORIDES (P.P.M.): 80000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT?
DRILL COLLAR LENGTH: FT I.D.: IN
WEIGHT PIPE LENGTH: 993 FT I.D.: 2.7 IN
DRILL PIPE LENGTH: 1364 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 51 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
INCREASING TO 2 1/2" BLOW.
FINAL FLOW PERIOD WEAK 1 1/2" BLOW.

RECOVERED: 65 FT OF: MUD.
RECOVERED: 60 FT OF: WATERY MUD. CHLORIDES 76000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: HIT BRIDGES WITH TOOL 110' & 90' FROM BOTTOM.
ANCHOR SHOWS SOME PLUGGING ACTION.

TIME SET PACKER(S): 7:05 PM TIME STARTED OFF BOTTOM: 9:35 PM
WELL TEMPERATURE: 87 'F
INITIAL HYDROSTATIC PRESSURE: (A) 1269 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 49 PSI TO (C) 78 PSI
INITIAL CLOSED IN PERIOD MIN: 42 (D) 746 PSI
FINAL FLOW PERIOD MIN: 30 (E) 86 PSI TO (F) 96 PSI
FINAL CLOSED IN PERIOD MIN: 48 (G) 708 PSI
FINAL HYDROSTATIC PRESSURE (H) 1237 PSI

WESTERN TESTING CO. INC.
PRESSURE DATA

DATE: 3/11/84 TICKET #4668
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 2 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: TARKIO
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

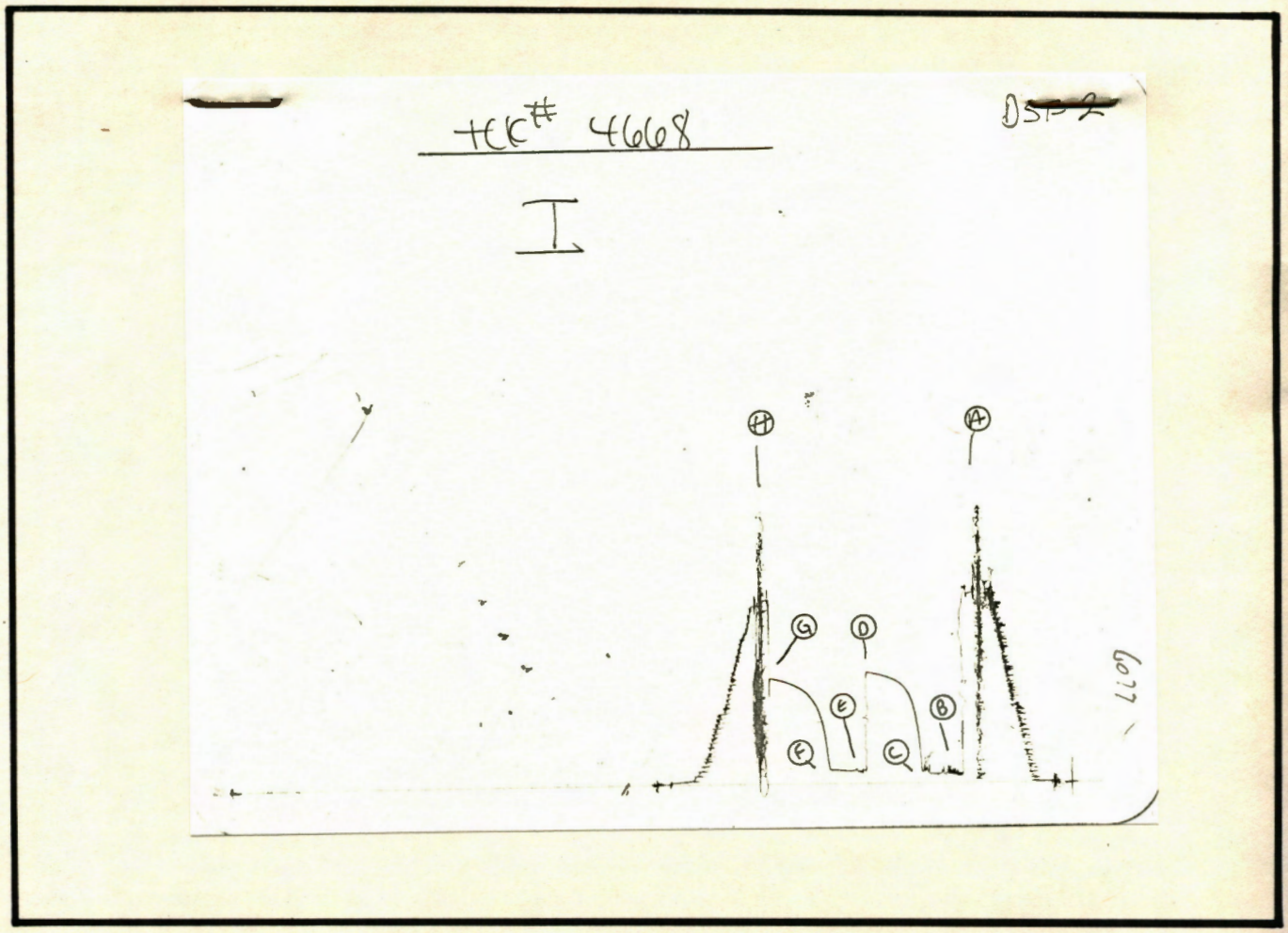
(A) INITIAL HYDROSTATIC PRESSURE:	1269	PSI
(B) FIRST INITIAL FLOW PRESSURE:	49	PSI
(C) FIRST FINAL FLOW PRESSURE:	78	PSI
(D) INITIAL CLOSED-IN PRESSURE:	746	PSI
(E) SECOND INITIAL FLOW PRESSURE:	86	PSI
(F) SECOND FINAL FLOW PRESSURE:	96	PSI
(G) FINAL CLOSED-IN PRESSURE:	708	PSI
(H) FINAL HYDROSTATIC PRESSURE:	1237	PSI
WELL TEMPERATURE:	87	°F

OPEN TOOL: 7:05 PM

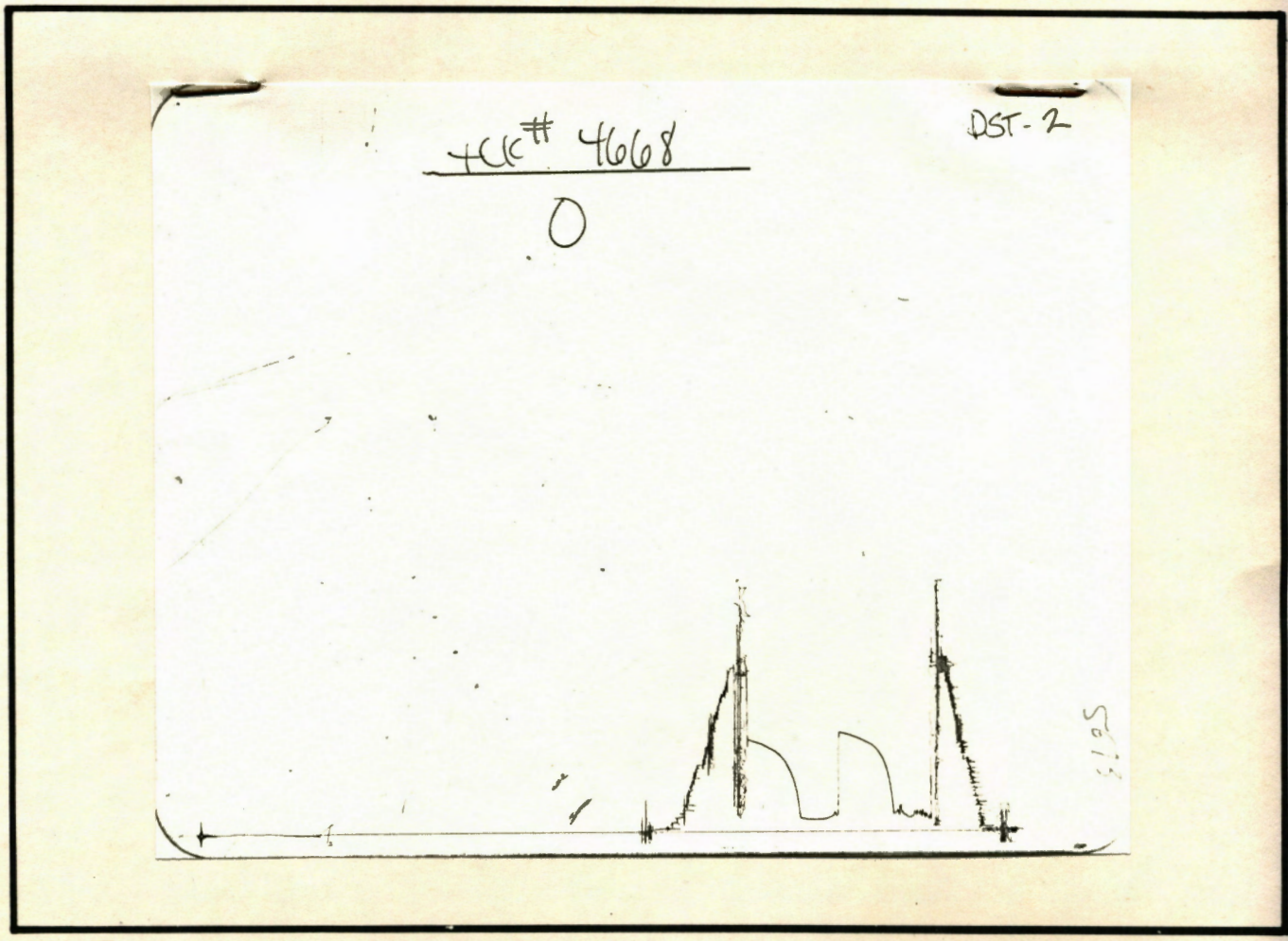
	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	30 MIN	30 MIN
INITIAL CLOSED-IN PRESSURE:	45 MIN	42 MIN
SECOND FLOW PRESSURE:	30 MIN	30 MIN
FINAL CLOSED-IN PRESSURE:	45 MIN	48 MIN

PRESSURE BREAKDOWN

	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
PT	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	49	0	78	0	86	0	96
2	5	58	3	377	5	86	3	248
3	10	61	6	506	10	88	6	397
4	15	61	9	584	15	90	9	490
5	20	61	12	632	20	92	12	539
6	25	61	15	659	25	94	15	577
7	30	78	18	680	30	96	18	609
8			21	696			21	630
9			24	707			24	645
10			27	715			27	657
11			30	723			30	669
12			33	729			33	680
13			36	735			36	688
14			39	741			39	696
15			42	746			42	700
16							45	704
17							48	708
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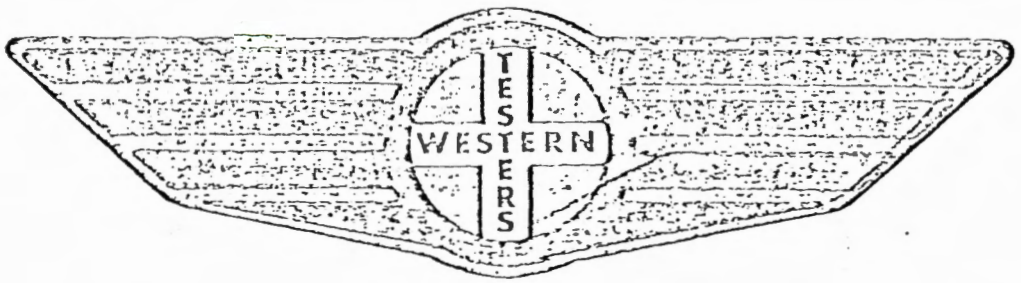


Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

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

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 3/13/84 TICKET #4669
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 3 GEOLOGIST: ZINK
ELEVATION (KB): 1798 FORMATION: TOPEKA TORONTO
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

INTERVAL TEST FROM: 2828 FT TO: 2944 FT TOTAL DEPTH: 2944 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2823 FT SIZE: 6 3/4 IN PACKER DEPTH: 2828 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER DRLG
MUD TYPE: STARCH VISCOSITY: 41
WEIGHT: 9.9 WATER LOSS (CC): 15.2
CHLORIDES (P.P.M.): 62000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?

DRILL COLLAR LENGTH:		FT	I.D.:		IN
WEIGHT PIPE LENGTH:	898	FT	I.D.:	2.7	IN
DRILL PIPE LENGTH:	1909	FT	I.D.:	3.8	IN
TEST TOOL LENGTH:	21	FT	TOOL SIZE:	5 1/2 OD	IN
ANCHOR LENGTH:	116	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
INCREASED TO 2 1/4" BLOW.
FINAL FLOW PERIOD WEAK BLOW
DECREASING TO 1/4" BLOW.

RECOVERED: 75 FT OF: MUD. CHLORIDES 66000 PPM.
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: HIT BRIDGE 6 FEET FROM BOTTOM.

TIME SET PACKER(S): 1:45 PM TIME STARTED OFF BOTTOM: 4:45 PM
WELL TEMPERATURE: 94 'F

INITIAL HYDROSTATIC PRESSURE:		(A) 1505	PSI	
INITIAL FLOW PERIOD	MIN: 45	(B) 32	PSI TO (C) 42	PSI
INITIAL CLOSED IN PERIOD	MIN: 42	(D) 876	PSI	
FINAL FLOW PERIOD	MIN: 45	(E) 55	PSI TO (F) 64	PSI
FINAL CLOSED IN PERIOD	MIN: 42	(G) 842	PSI	
FINAL HYDROSTATIC PRESSURE		(H) 1481	PSI	

WESTERN TESTING CO. INC.
PRESSURE DATA

DATE: 3/13/84 TICKET #4669
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 3 GEOLOGIST: ZINK
ELEVATION (KB): 1798 FORMATION: TOPEKA TORONTO
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

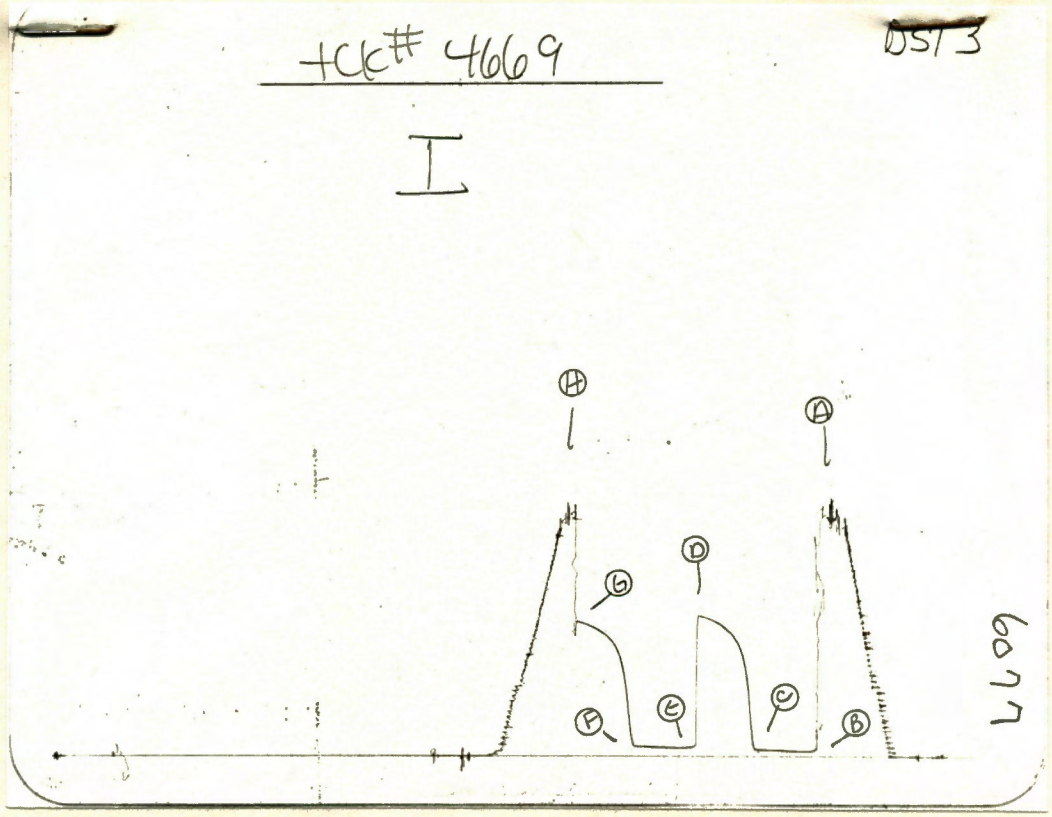
(A)	INITIAL HYDROSTATIC PRESSURE:	1505	PSI
(B)	FIRST INITIAL FLOW PRESSURE:	32	PSI
(C)	FIRST FINAL FLOW PRESSURE:	42	PSI
(D)	INITIAL CLOSED-IN PRESSURE:	876	PSI
(E)	SECOND INITIAL FLOW PRESSURE:	55	PSI
(F)	SECOND FINAL FLOW PRESSURE:	64	PSI
(G)	FINAL CLOSED-IN PRESSURE:	842	PSI
(H)	FINAL HYDROSTATIC PRESSURE:	1481	PSI
WELL TEMPERATURE:		94	'F

OPEN TOOL: 1:45 PM

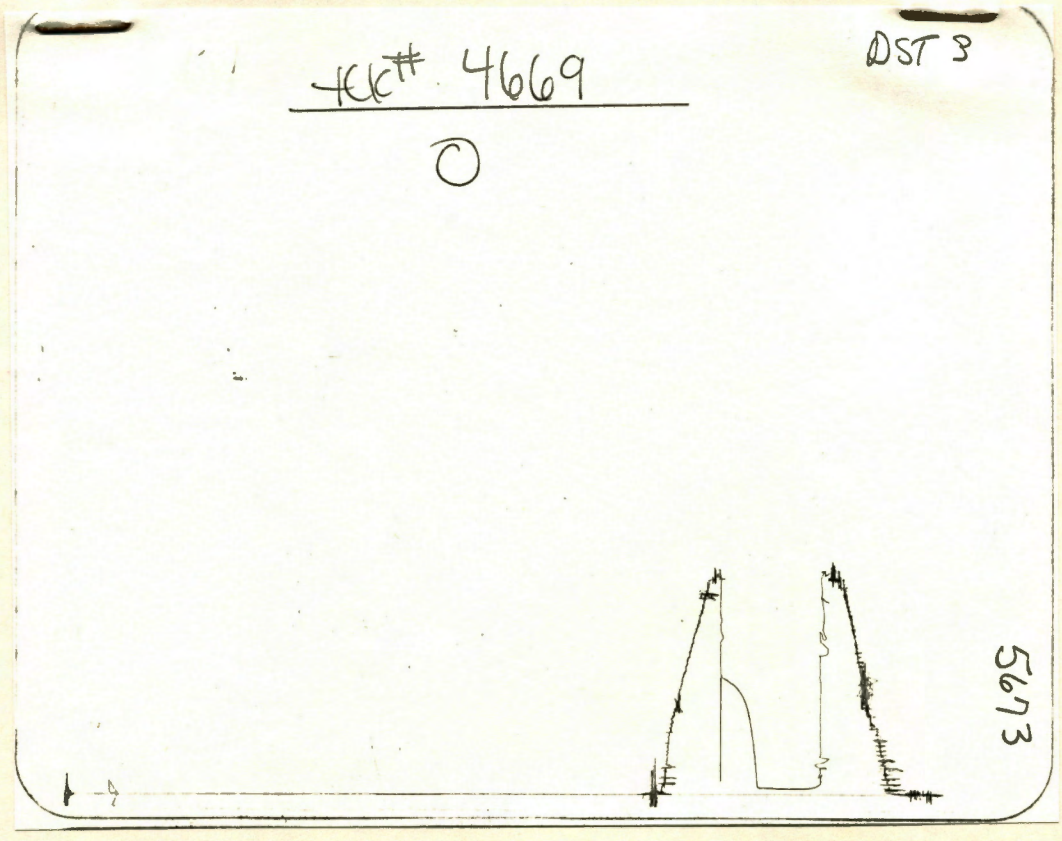
	TIME - GIVEN		TIME - ACTUAL	
FIRST FLOW PRESSURE:	45	MIN	45	MIN
INITIAL CLOSED-IN PRESSURE:	45	MIN	42	MIN
SECOND FLOW PRESSURE:	45	MIN	45	MIN
FINAL CLOSED-IN PRESSURE:	45	MIN	42	MIN

PRESSURE BREAKDOWN

	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
PT	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	32	0	42	0	55	0	64
2	5	32	3	210	5	55	3	200
3	10	32	6	471	10	55	6	400
4	15	33	9	611	15	55	9	560
5	20	34	12	680	20	56	12	646
6	25	36	15	724	25	57	15	700
7	30	38	18	765	30	59	18	731
8	35	40	21	786	35	61	21	757
9	40	41	24	808	40	63	24	775
10	45	42	27	826	45	64	27	791
11			30	841			30	806
12			33	852			33	818
13			36	861			36	828
14			39	870			39	836
15			42	876			42	842
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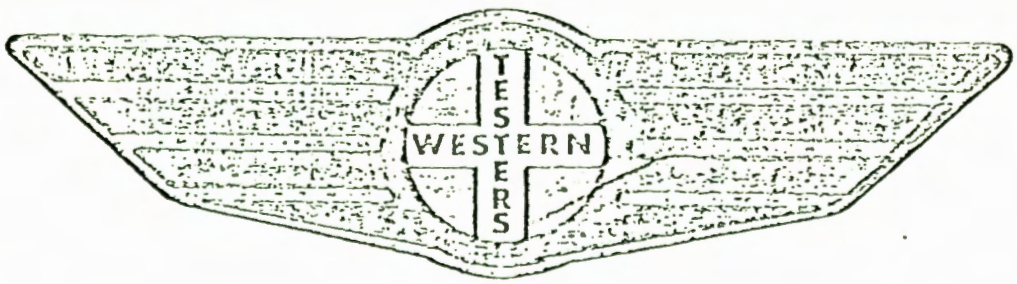


Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office:
P.O. Box 1599

Wichita, Kansas 67201
Phone (316) 262-5861

Company A. SCOTT RITCHIE Lease and Well No. #1 BOND Sec. 23 Twp. 14S Rge. 13W Test No. 4 Date 3/14/8

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 3/14/84 TICKET #4670
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 4 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: LANSING
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

INTERVAL TEST FROM: 2950 FT TO: 2990 FT TOTAL DEPTH: 2990 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2950 FT SIZE: 6 3/4 IN PACKER DEPTH: FT SIZE: IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER DRLG
MUD TYPE: STARCH VISCOSITY: 41
WEIGHT: 9.9 WATER LOSS (CC): 15.2
CHLORIDES (P.P.M.): 62000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?

DRILL COLLAR LENGTH:		FT	I.D.:		IN
WEIGHT PIPE LENGTH:	948	FT	I.D.:	2.7	IN
DRILL PIPE LENGTH:	1986	FT	I.D.:	3.8	IN
TEST TOOL LENGTH:	16	FT	TOOL SIZE:	5 1/2 OD	IN
ANCHOR LENGTH:	40	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 1" BLOW.
FINAL FLOW PERIOD VERY WEAK 1/4" BLOW.

RECOVERED:	75 FT	OF:	MUD WITH A FEW OIL SPOTS ON TOP OF TOOL.
RECOVERED:	FT	OF:	CHLORIDES 60000 PPM.
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): 5:25 AM TIME STARTED OFF BOTTOM: 7:55 AM
WELL TEMPERATURE: 97 'F

INITIAL HYDROSTATIC PRESSURE:		(A) 1588	PSI	
INITIAL FLOW PERIOD	MIN: 30	(B) 31	PSI TO (C) 41	PSI
INITIAL CLOSED IN PERIOD	MIN: 45	(D) 895	PSI	
FINAL FLOW PERIOD	MIN: 30	(E) 50	PSI TO (F) 56	PSI
FINAL CLOSED IN PERIOD	MIN: 45	(G) 886	PSI	
FINAL HYDROSTATIC PRESSURE		(H) 1568	PSI	

WESTERN TESTING CO. INC.
PRESSURE DATA

DATE: 3/14/84 TICKET #4670
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 4 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: LANSING
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

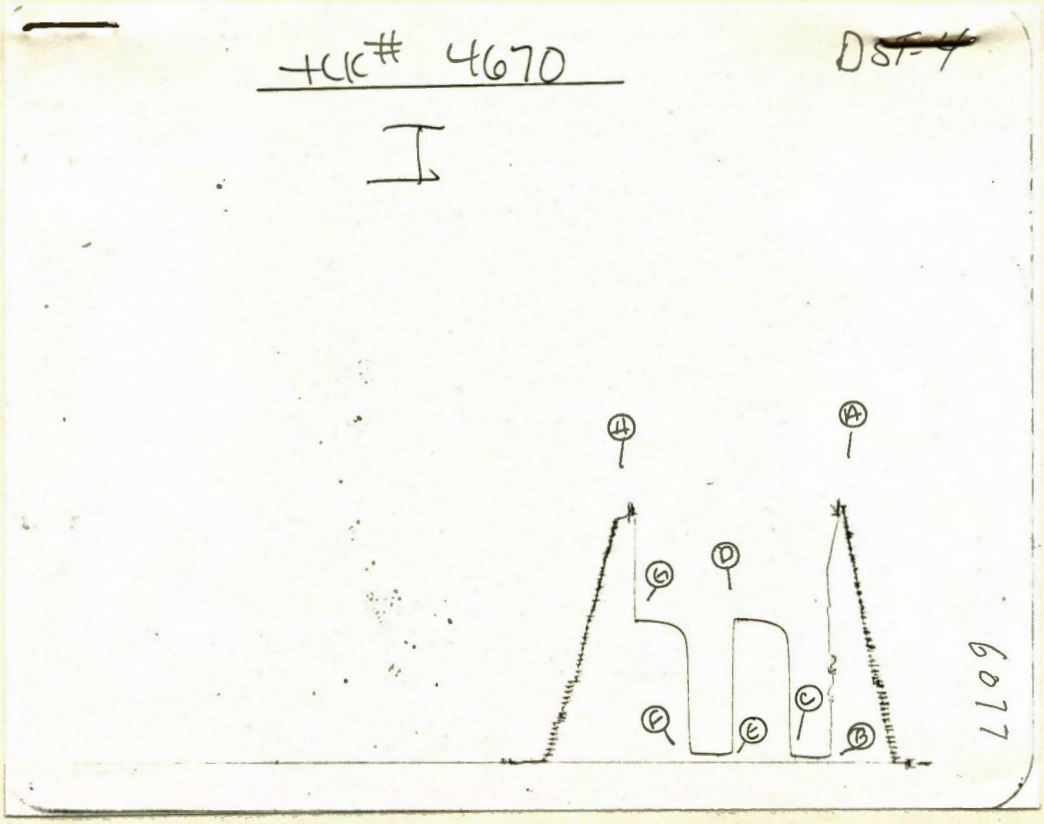
(A) INITIAL HYDROSTATIC PRESSURE:	1588	PSI
(B) FIRST INITIAL FLOW PRESSURE:	31	PSI
(C) FIRST FINAL FLOW PRESSURE:	41	PSI
(D) INITIAL CLOSED-IN PRESSURE:	895	PSI
(E) SECOND INITIAL FLOW PRESSURE:	50	PSI
(F) SECOND FINAL FLOW PRESSURE:	56	PSI
(G) FINAL CLOSED-IN PRESSURE:	886	PSI
(H) FINAL HYDROSTATIC PRESSURE:	1568	PSI
WELL TEMPERATURE:	97	°F

OPEN TOOL: 5:25 AM

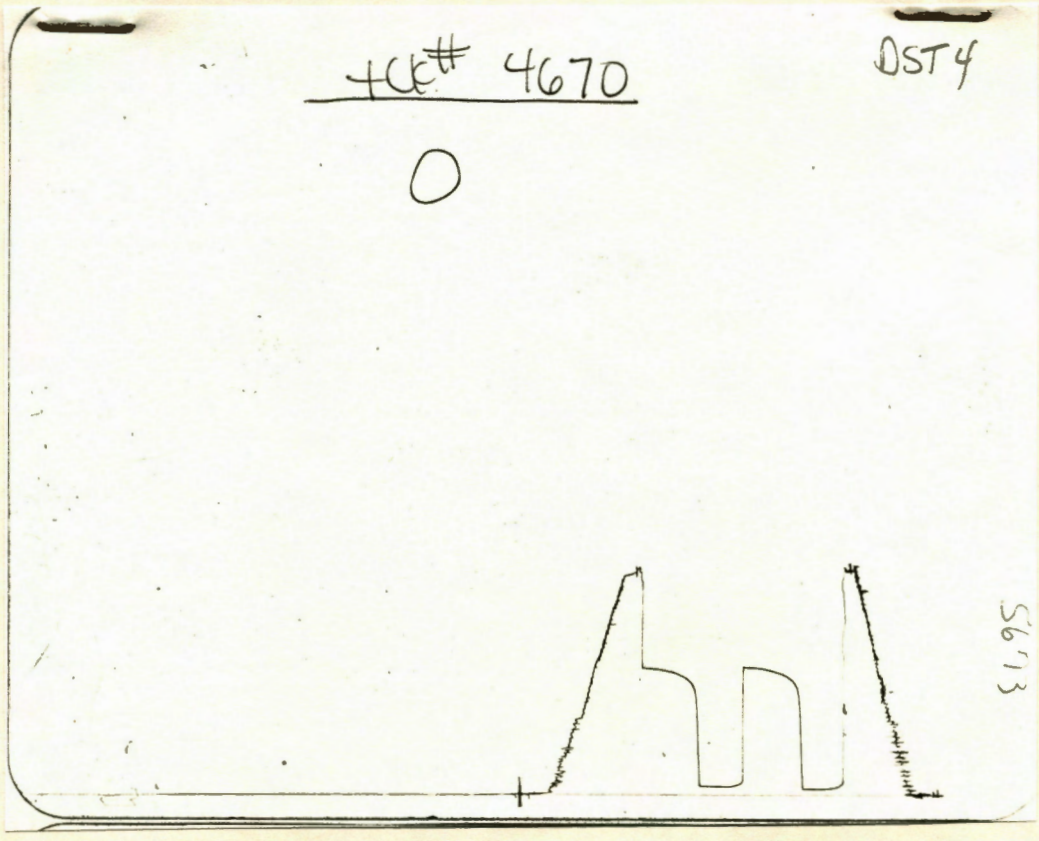
	TIME - GIVEN		TIME - ACTUAL	
FIRST FLOW PRESSURE:	30	MIN	30	MIN
INITIAL CLOSED-IN PRESSURE:	45	MIN	45	MIN
SECOND FLOW PRESSURE:	30	MIN	30	MIN
FINAL CLOSED-IN PRESSURE:	45	MIN	45	MIN

PRESSURE BREAKDOWN

	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
PT	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	31	0	41	0	50	0	56
2	5	31	3	783	5	50	3	656
3	10	31	6	830	10	50	6	801
4	15	33	9	849	15	53	9	831
5	20	35	12	861	20	54	12	849
6	25	38	15	871	25	55	15	860
7	30	41	18	878	30	56	18	869
8			21	883			21	873
9			24	886			24	876
10			27	889			27	879
11			30	891			30	881
12			33	892			33	882
13			36	893			36	883
14			39	894			39	884
15			42	895			42	885
16			45	895			45	886
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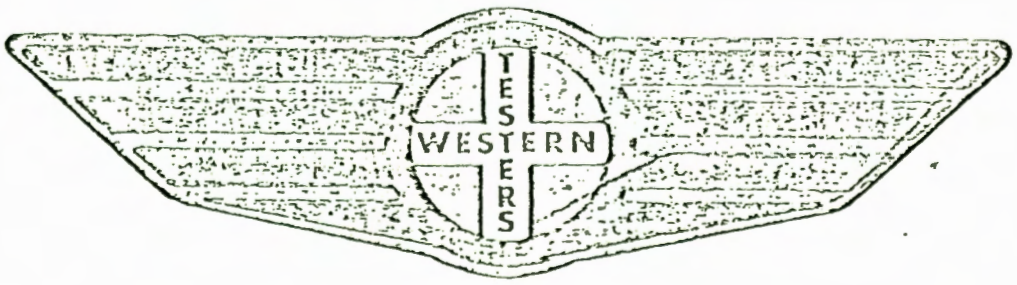


Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

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

Company A. SCOTT RITCHIE Lease and Well No. #1 BOND Sec. 23 Twp. 14S Rge. 13W Test No. 5 Date 3/15/8

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 3/15/84 TICKET #4672
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 5 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: KANSAS CITY
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

INTERVAL TEST FROM: 3157 FT TO: 3200 FT TOTAL DEPTH: 3200 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3152 FT SIZE: 6 3/4 IN PACKER DEPTH: 3157 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER DRLG
MUD TYPE: STARCH VISCOSITY: 41
WEIGHT: 10.0 WATER LOSS (CC): 10.4
CHLORIDES (P.P.M.): 56000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?
DRILL COLLAR LENGTH: FT I.D.: IN
WEIGHT PIPE LENGTH: 948 FT I.D.: 2.7 IN
DRILL PIPE LENGTH: 2188 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 43 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 INCREASING
TO FAIR 4 1/2" BLOW.
FINAL FLOW PERIOD FAIR 3 1/4" BLOW.

RECOVERED: 65 FT OF: WATERY MUD.
RECOVERED: 180 FT OF: SLIGHTLY GAS CUT MUDDY WATER.
RECOVERED: FT OF: CHLORIDES 59000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 12:35 PM TIME STARTED OFF BOTTOM: 3:05 PM
WELL TEMPERATURE: 98 'F

INITIAL HYDROSTATIC PRESSURE:		(A) 1702	PSI	
INITIAL FLOW PERIOD	MIN: 30	(B) 44	PSI TO (C) 89	PSI
INITIAL CLOSED IN PERIOD	MIN: 45	(D) 945	PSI	
FINAL FLOW PERIOD	MIN: 30	(E) 110	PSI TO (F) 149	PSI
FINAL CLOSED IN PERIOD	MIN: 45	(G) 925	PSI	
FINAL HYDROSTATIC PRESSURE		(H) 1688	PSI	

WESTERN TESTING CO. INC.

PRESSURE DATA

DATE: 3/15/84 TICKET #4672
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 5 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: KANSAS CITY
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

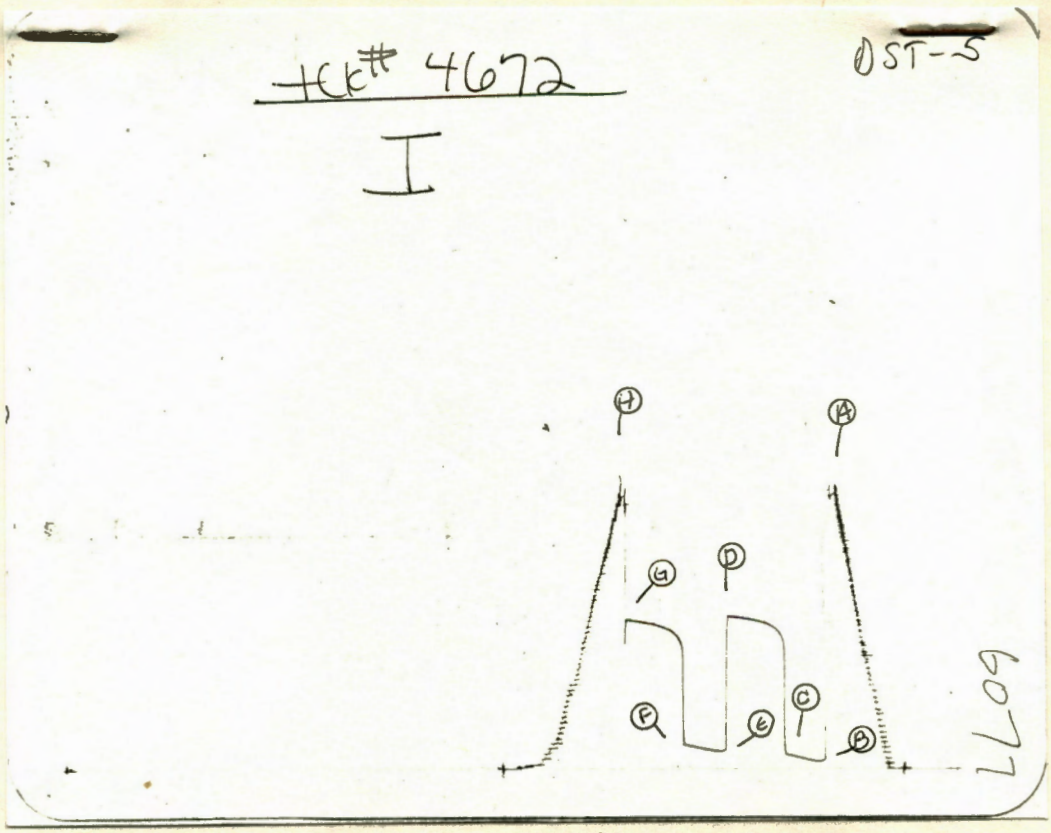
(A) INITIAL HYDROSTATIC PRESSURE:	1702	PSI
(B) FIRST INITIAL FLOW PRESSURE:	44	PSI
(C) FIRST FINAL FLOW PRESSURE:	89	PSI
(D) INITIAL CLOSED-IN PRESSURE:	945	PSI
(E) SECOND INITIAL FLOW PRESSURE:	110	PSI
(F) SECOND FINAL FLOW PRESSURE:	149	PSI
(G) FINAL CLOSED-IN PRESSURE:	925	PSI
(H) FINAL HYDROSTATIC PRESSURE:	1688	PSI
WELL TEMPERATURE:	98	°F

OPEN TOOL: 12:35 PM

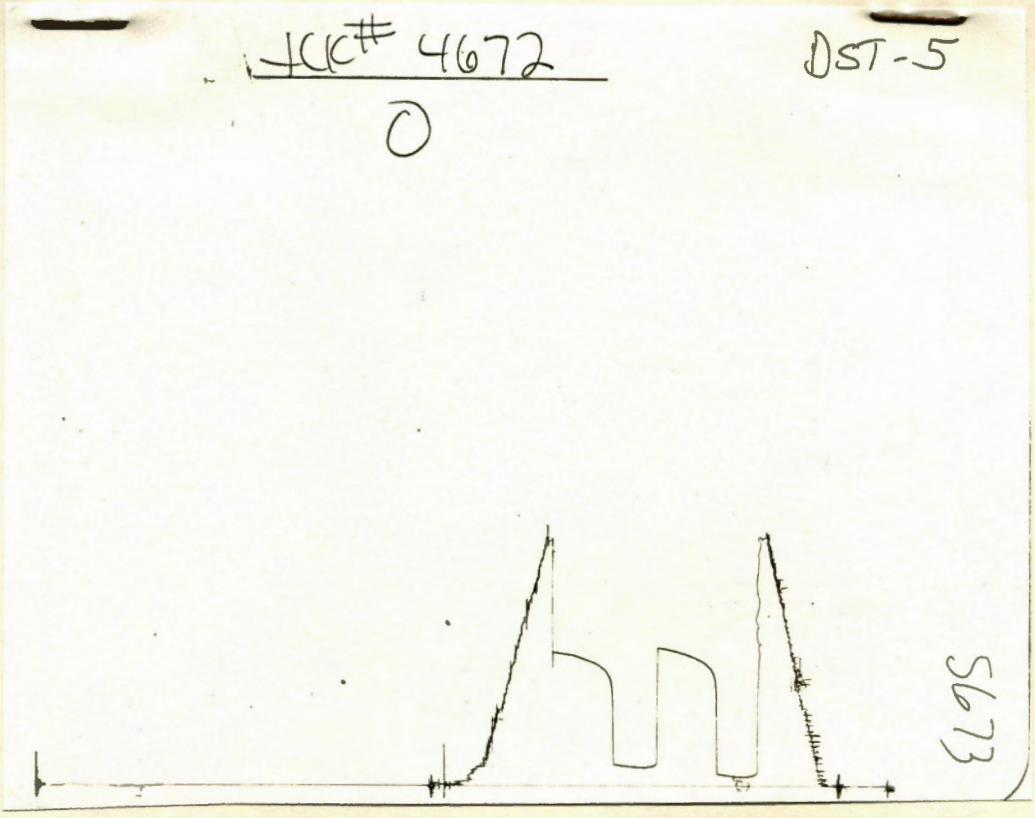
	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	30 MIN	30 MIN
INITIAL CLOSED-IN PRESSURE:	45 MIN	45 MIN
SECOND FLOW PRESSURE:	30 MIN	30 MIN
FINAL CLOSED-IN PRESSURE:	45 MIN	45 MIN

PRESSURE BREAKDOWN

	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
PT	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	44	0	89	0	110	0	149
2	5	44	3	826	5	110	3	806
3	10	50	6	862	10	115	6	838
4	15	61	9	884	15	122	9	859
5	20	71	12	896	20	131	12	871
6	25	81	15	906	25	141	15	882
7	30	89	18	913	30	149	18	890
8			21	920			21	898
9			24	925			24	903
10			27	930			27	907
11			30	933			30	911
12			33	935			33	914
13			36	938			36	917
14			39	941			39	920
15			42	943			42	923
16			45	945			45	925
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Inside Recorder



Outside Recorder

FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

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

Company A. SCOTT RITCHIE Lease and Well No. #1 BOND Sec. 23 Twp. 14S Rge. 13W Test No. 6 Date 3/16/84

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 3/16/84 TICKET #4673
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 6 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: ARBUCKLE
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

INTERVAL TEST FROM: 3248 FT TO: 3263 FT TOTAL DEPTH: 3263 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3243 FT SIZE: 6 3/4 IN PACKER DEPTH: 3248 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RED TIGER DRLG
MUD TYPE: STARCH VISCOSITY: 41
WEIGHT: 10.0 WATER LOSS (CC): 10.4
CHLORIDES (P.P.M.): 56000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?
DRILL COLLAR LENGTH: FT I.D.: IN
WEIGHT PIPE LENGTH: 948 FT I.D.: 2.7 IN
DRILL PIPE LENGTH: 2315 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 21 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 15 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 INCREASING
TO GOOD 8" BLOW.
FINAL FLOW PERIOD INCREASING
TO GOOD 2" BLOW.

RECOVERED: 10 FT OF: FREE OIL.
RECOVERED: 65 FT OF: SLIGHTLY OIL CUT MUDDY WATER.
RECOVERED: FT OF: 5% OIL; 40% MUD; 55% WATER.
RECOVERED: 120 FT OF: SLIGHTLY OIL CUT MUDDY WATER.
RECOVERED: FT OF: 5% OIL; 30% MUD; 65% WATER.
RECOVERED: FT OF: CHLORIDES 54000 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 6:40 AM TIME STARTED OFF BOTTOM: 9:10 AM
WELL TEMPERATURE: 101 'F
INITIAL HYDROSTATIC PRESSURE: (A) 1760 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 39 PSI TO (C) 75 PSI
INITIAL CLOSED IN PERIOD MIN: 45 (D) 529 PSI
FINAL FLOW PERIOD MIN: 30 (E) 93 PSI TO (F) 105 PSI
FINAL CLOSED IN PERIOD MIN: 42 (G) 380 PSI
FINAL HYDROSTATIC PRESSURE (H) 1724 PSI

WESTERN TESTING CO. INC.
PRESSURE DATA

DATE: 3/16/84 TICKET #4673
CUSTOMER: A. SCOTT RITCHIE LEASE: BOND
WELL: 1 TEST: 6 GEOLOGIST: CHRISTIAN
ELEVATION (KB): 1798 FORMATION: ARBUCKLE
SECTION: 23 TOWNSHIP: 14S
RANGE: 13W COUNTY: RUSSELL STATE: KANSAS
GAUGE SN #6077 RANGE: 4700 CLOCK: 12

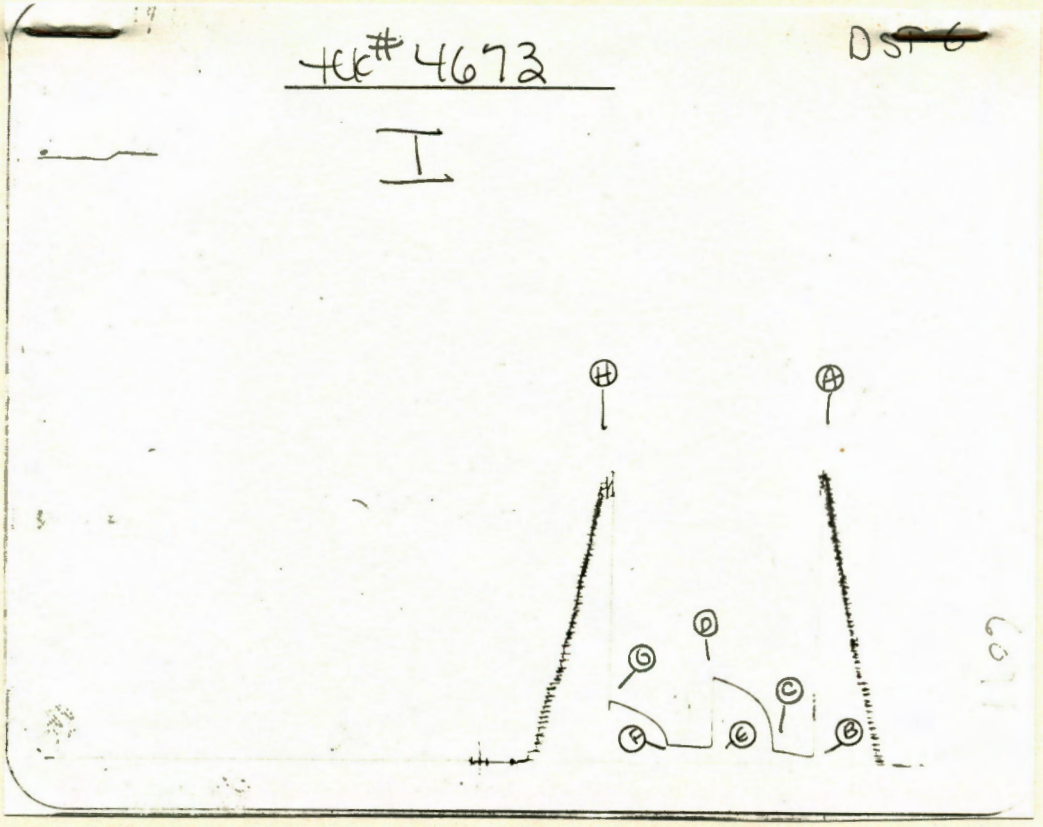
(A) INITIAL HYDROSTATIC PRESSURE:	1760	PSI
(B) FIRST INITIAL FLOW PRESSURE:	39	PSI
(C) FIRST FINAL FLOW PRESSURE:	75	PSI
(D) INITIAL CLOSED-IN PRESSURE:	529	PSI
(E) SECOND INITIAL FLOW PRESSURE:	93	PSI
(F) SECOND FINAL FLOW PRESSURE:	105	PSI
(G) FINAL CLOSED-IN PRESSURE:	380	PSI
(H) FINAL HYDROSTATIC PRESSURE:	1724	PSI
WELL TEMPERATURE:	101	'F

OPEN TOOL: 6:40 AM

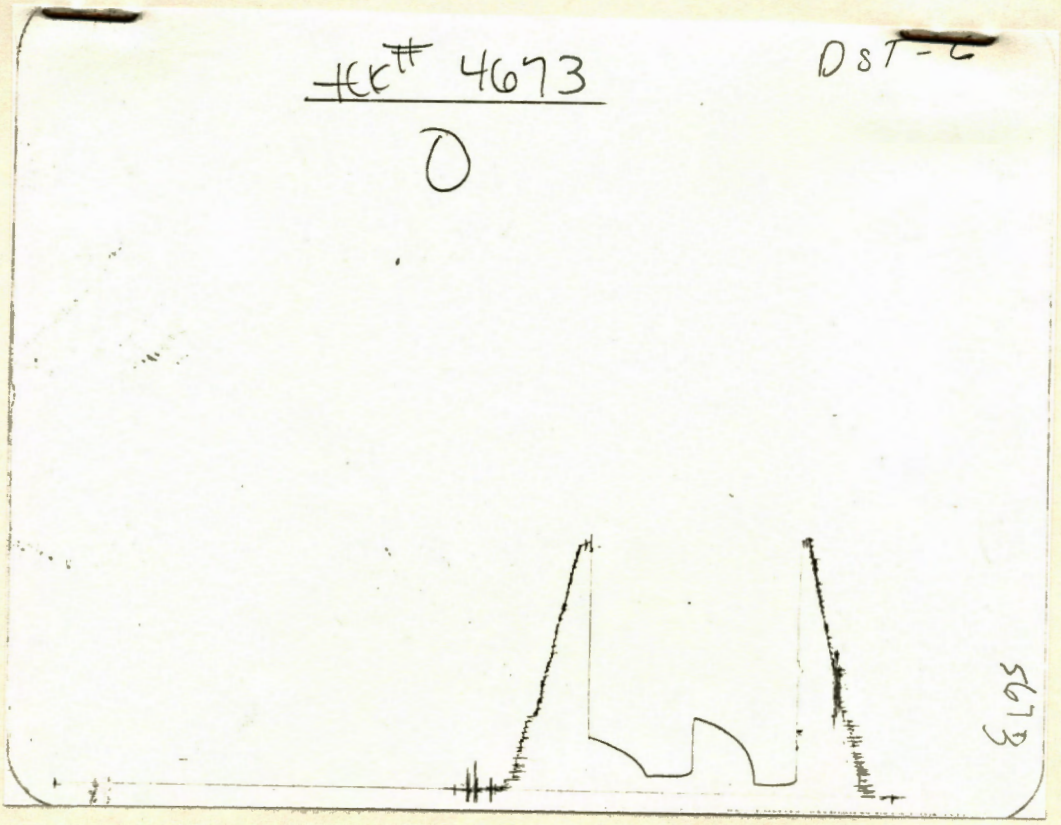
	TIME - GIVEN		TIME - ACTUAL	
FIRST FLOW PRESSURE:	30	MIN	30	MIN
INITIAL CLOSED-IN PRESSURE:	45	MIN	45	MIN
SECOND FLOW PRESSURE:	30	MIN	30	MIN
FINAL CLOSED-IN PRESSURE:	45	MIN	42	MIN

PRESSURE BREAKDOWN

	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
PT	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	39	0	75	0	93	0	105
2	5	39	3	269	5	93	3	188
3	10	47	6	326	10	95	6	223
4	15	55	9	367	15	98	9	248
5	20	63	12	392	20	100	12	270
6	25	70	15	416	25	103	15	287
7	30	75	18	435	30	105	18	301
8			21	451			21	314
9			24	465			24	326
10			27	478			27	337
11			30	489			30	348
12			33	499			33	357
13			36	509			36	366
14			39	517			39	374
15			42	524			42	380
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Inside Recorder



Outside Recorder