

COZAD

Lease Name

Well No.

Test No.

3163' - 3209'

Tested Interval

ABERCROMBIE DRILLING, INCORPORATED

Lease Owner/Company Name

Legal Location

SE-NE-14-1S-26W

Field Area

AUSTIN S.E.

County

DECATUR

State

KANSAS

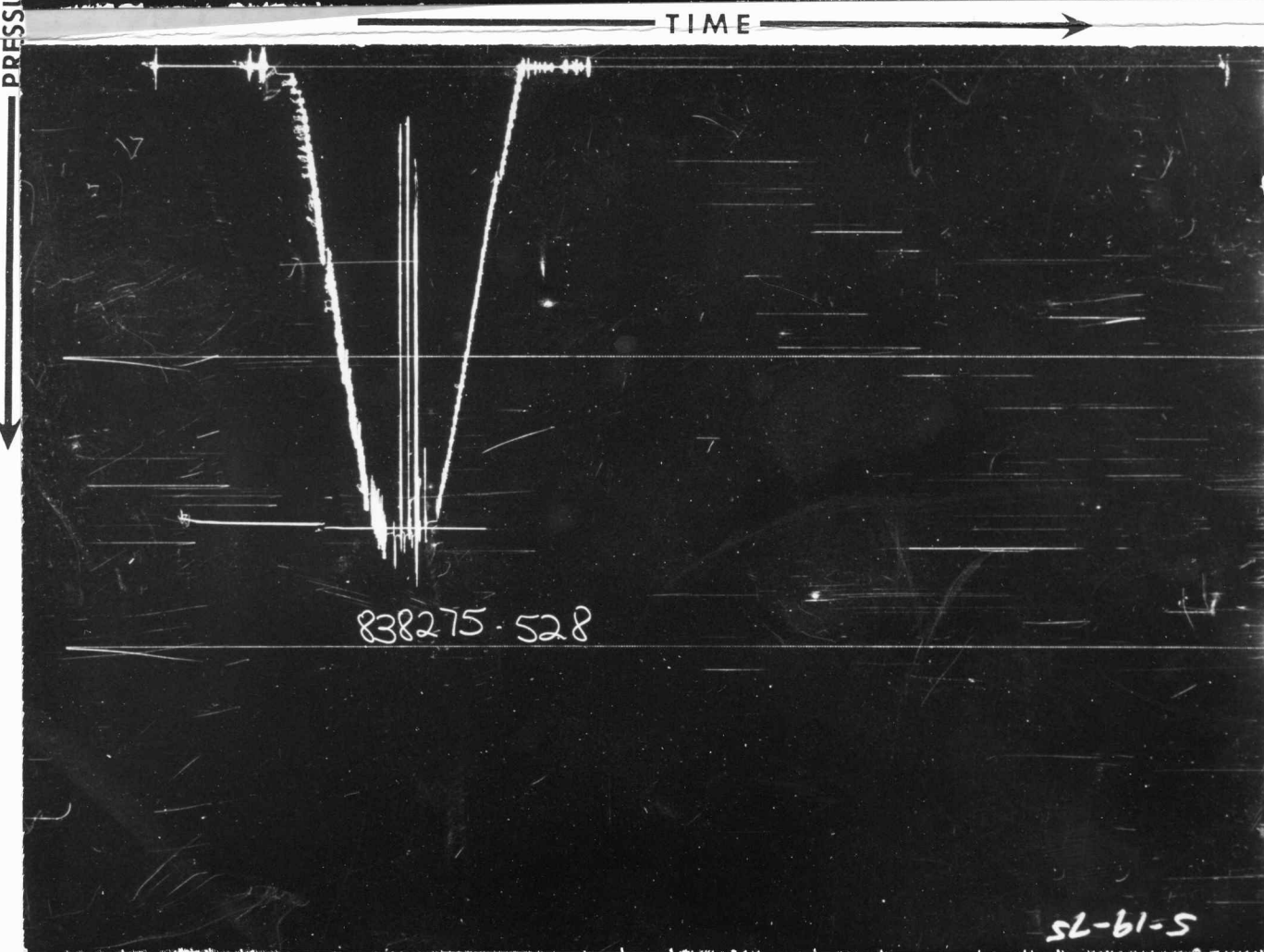
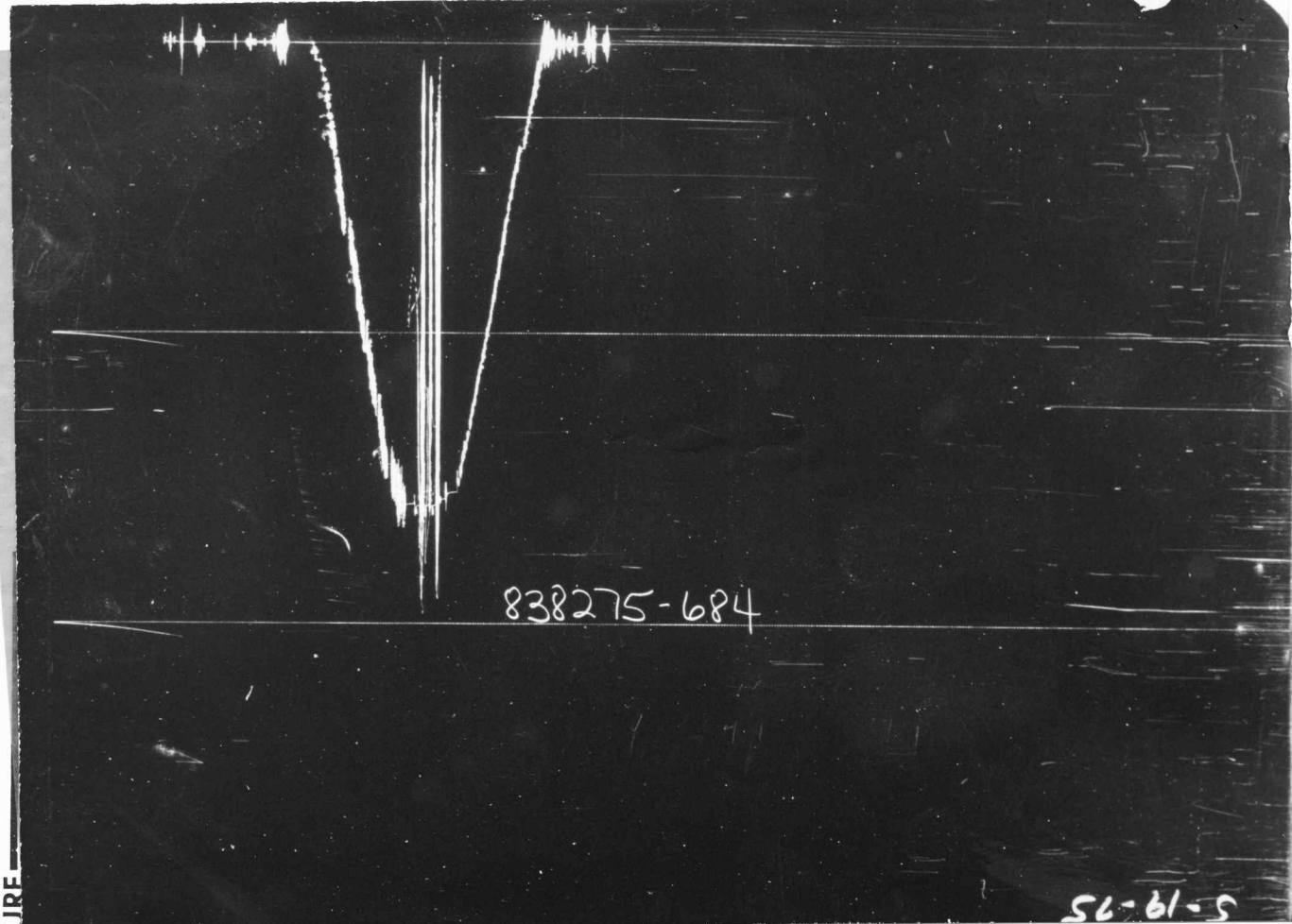
FLUID SAMPLE DATA				Date 5-19-75		Ticket Number 838275	
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job OPEN HOLE TEST		Halliburton District HAYS	
Recovery: Cu. Ft. Gas _____				Tester MR. PALMBERG		Witness MR. WHARTON	
cc. Oil _____				Drilling Contractor COMPANY TOOLS PW			
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud _____				Formation Tested Lower Kansas City			
Tot. Liquid cc. _____				Elevation 2377' K.B. (estimated) Ft.			
Gravity _____ ° API @ _____ ° F.				Net Productive Interval 6' Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From Kelly Bushing			
RESISTIVITY _____ CHLORIDE CONTENT _____				Total Depth 3209' Ft.			
Recovery Water _____ @ _____ ° F. _____ ppm				Main Hole/Casing Size 7 7/8"			
Recovery Mud _____ @ _____ ° F. _____ ppm				Drill Casing Length Pipe 1977' I.D. 2.764"			
Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm				Drill Pipe Length 1166' I.D. 3.826"			
Mud Pit Sample _____ @ _____ ° F. _____ ppm				Packer Depth(s) 3163' - 3168' Ft.			
Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm				Depth Tester Valve 3153' Ft.			
Mud Weight 9.7 vis 60 cp							
TYPE		AMOUNT		Depth Back Pres. Valve		Surface Choke	
Cushion				Ft.		Bottom Choke 3/4"	
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks		Unsuccessful test. Packer failure.					
TEMPERATURE		Gauge No. 684		Gauge No. 528		Gauge No.	
Depth: 3154' Ft.		Depth: 3205' Ft.		Depth: _____ Ft.		TIME	
Est. _____ ° F.		12 Hour Clock		12 Hour Clock		Tool A.M.	
Blanked Off NO		Blanked Off YES		Blanked Off		Opened P.M.	
3204'						Opened A.M.	
Actual 108°F.		Pressures		Pressures		Bypass P.M.	
		Field Office		Field Office		Reported Computed	
Initial Hydrostatic		1582		1604		Minutes Minutes	
First Period Flow Initial							
Flow Final							
Closed in							
Second Period Flow Initial							
Flow Final							
Closed in							
Third Period Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic		1566		1584			

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	5.75"	2.76"	1'	
Reversing Sub				
Water Cushion Valve				
Drill Pipe	3.50"	2.764"	1977'	
Drill Collars ~~Drill Pipe~~	4 1/2"	3.826"	1166'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	5'	3144'
Dual CIP Sampler				
Hydro-Spring Tester	5.0"	.75"	5'	3153'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.0"	3.06"	4'	3154'
Hydraulic Jar				
VR Safety Joint	5.0"	1.0"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	4'	3163'
Distributor				
Packer Assembly	6.75"	1.53"	4'	3168'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5.0"	3.84"	37'	
Blanked-Off B.T. Running Case	5.0"	2.44"	4'	3205'
Total Depth				3209'

TEMPERATURE
RECORDER
CHART



10° each circle



Each Horizontal Line Equal to 1000 p.s.i.

COZAD

Lease Name

Well No.

Test No.

3166-3209'

ABERCROMBIE DRILLING INCORPORATED

Lease Owner/Company Name

Legal Location
Sec. - Twp. - Rng.

SE-NE-14-1S-26W

Field Area

AUSTIN S.E.

County

DECATUR

State

KANSAS

FLUID SAMPLE DATA				Date		Ticket Number	
Sampler Pressure _____ P.S.I.G. at Surface				5-20-75		804126	
Recovery: Cu. Ft. Gas _____				Kind of Job		Halliburton District	
cc. Oil _____				OPEN HOLE		HAYS	
cc. Water _____				Tester		Witness	
cc. Mud _____				MR. PALMBERG		MR. WHARTON	
Tot. Liquid cc. _____				Drilling Contractor		DR S	
Gravity _____ ° API @ _____ °F.				EQUIPMENT & HOLE DATA			
Gas/Oil Ratio _____ cu. ft./bbl.				Formation Tested			
RESISTIVITY _____ CHLORIDE CONTENT _____				Lower Kansas City			
Recovery Water @ _____ °F. _____ ppm				Elevation _____ Est. 2377' KB _____ Ft.			
Recovery Mud @ _____ °F. _____ ppm				Net Productive Interval 6' _____ Ft.			
Recovery Mud Filtrate @ _____ °F. _____ ppm				All Depths Measured From Kelly Bushing			
Mud Pit Sample @ _____ °F. _____ ppm				Total Depth 3209' _____ Ft.			
Mud Pit Sample Filtrate @ _____ °F. _____ ppm				Main Hole/Casing Size 7 7/8"			
Mud Weight 9.7 vis 60 cp				Drill Collar Length 1977' Wp I.D. 2.764"			
				Drill Pipe Length 1164' I.D. 3.826"			
				Packer Depth(s) 3161-3166' _____ Ft.			
				Depth Tester Valve 3151' _____ Ft.			
TYPE		AMOUNT		Depth Back		Surface	
Cushion				Ft. Pres. Valve		Choke	
						1/4"	
						Bottom Choke 3/4"	
Recovered 300		Feet of		slightly oil cut mud			
Recovered 1935		Feet of		water cut mud			
Recovered		Feet of		Only 25 minutes of initial closed in pressure segmented before apparent leakage. Leakage indicated during final closed in pressure. Final closed in pressure non-usuable.			
Recovered		Feet of					
Recovered		Feet of					
Remarks							
Opened tool for 32 minute first flow with a weak blow increasing to a good blow. Closed tool for 44 minute first closed in pressure. Reopened tool for 59 minute second flow with a strong blow decreasing to a weak blow. Closed tool for 45 minute second closed in pressure. Started tool off bottom, packers did not pull loose. Came loose from packers at safety joint. Started drill pipe out of hole @ 7:45. Seepage around packers. Unsuccessful run							
TEMPERATURE		Gauge No. 684		Gauge No. 528		Gauge No.	
Depth: 3152		Ft.		Depth: 3205		Ft.	
3204'		12 Hour Clock		12 Hour Clock		Hour Clock	
Est. 98 °F.		Blanked Off NO		Blanked Off Yes		Blanked Off	
Actual °F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		1607		1653			
Flow Initial		85		101			
Flow Final		298		318			
Closed in		969		985			
Flow Initial		266-Q		305-Q			
Flow Final		514-Q		1132-Q			
Closed in		1377-Q		1256-Q			
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic		UTR		UTR			
		Q-Questionable		UTR-Unable to read			

Gauge No.		684		Depth		3152'		Clock No.		4773		12 hour		Ticket No.		804126	
First Flow Period		First Closed In Pressure		Second Flow Period		Second Closed In Pressure		Third Flow Period		Third Closed In Pressure		Time Defl.		PSIG Temp. Corr.		PSIG Temp. Corr.	
Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.
0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1	.0477	.0336	.0336	.0397	.0397	.0397	.0397	.0397	.0397	.0397	.0397	.0397	.0397	.0397	.0397	.0397	.0397
2	.0818	.0470	.0470														
3	.1158	.0605	.0605														
4	.1499	.0739	.0739														
5	.1840	.0874	.0874														
6	.2180	.1008	.1008														
7		.1142	.1142														
8		.1277	.1277														
9		.1411	.1411														
10		.1546	.1546														
11		.1680	.1680														
12																	
13																	
14																	
15																	

Gauge No.		528		Depth		3205'		Clock No.		2800		hour		12		Minutes	
Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.	Time Defl.	PSIG Temp. Corr.
0	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1	.0492	.0346	.0346	.0346	.0346	.0346	.0346	.0346	.0346	.0346	.0346	.0346	.0346	.0346	.0346	.0346	.0346
2	.0844	.0484	.0484	.0484	.0484	.0484	.0484	.0484	.0484	.0484	.0484	.0484	.0484	.0484	.0484	.0484	.0484
3	.1196	.0623	.0623	.0623	.0623	.0623	.0623	.0623	.0623	.0623	.0623	.0623	.0623	.0623	.0623	.0623	.0623
4	.1547	.0761	.0761	.0761	.0761	.0761	.0761	.0761	.0761	.0761	.0761	.0761	.0761	.0761	.0761	.0761	.0761
5	.1899	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900	.0900
6	.2250	.1038	.1038	.1038	.1038	.1038	.1038	.1038	.1038	.1038	.1038	.1038	.1038	.1038	.1038	.1038	.1038
7		.1176	.1176	.1176	.1176	.1176	.1176	.1176	.1176	.1176	.1176	.1176	.1176	.1176	.1176	.1176	.1176
8		.1315	.1315	.1315	.1315	.1315	.1315	.1315	.1315	.1315	.1315	.1315	.1315	.1315	.1315	.1315	.1315
9		.1453	.1453	.1453	.1453	.1453	.1453	.1453	.1453	.1453	.1453	.1453	.1453	.1453	.1453	.1453	.1453
10		.1592	.1592	.1592	.1592	.1592	.1592	.1592	.1592	.1592	.1592	.1592	.1592	.1592	.1592	.1592	.1592
11		.1730	.1730	.1730	.1730	.1730	.1730	.1730	.1730	.1730	.1730	.1730	.1730	.1730	.1730	.1730	.1730
12																	
13																	
14																	
15																	

Reading Interval	5	* First interval equal to 7 minutes	** -5 minutes	Q-Questionable
REMARKS:				

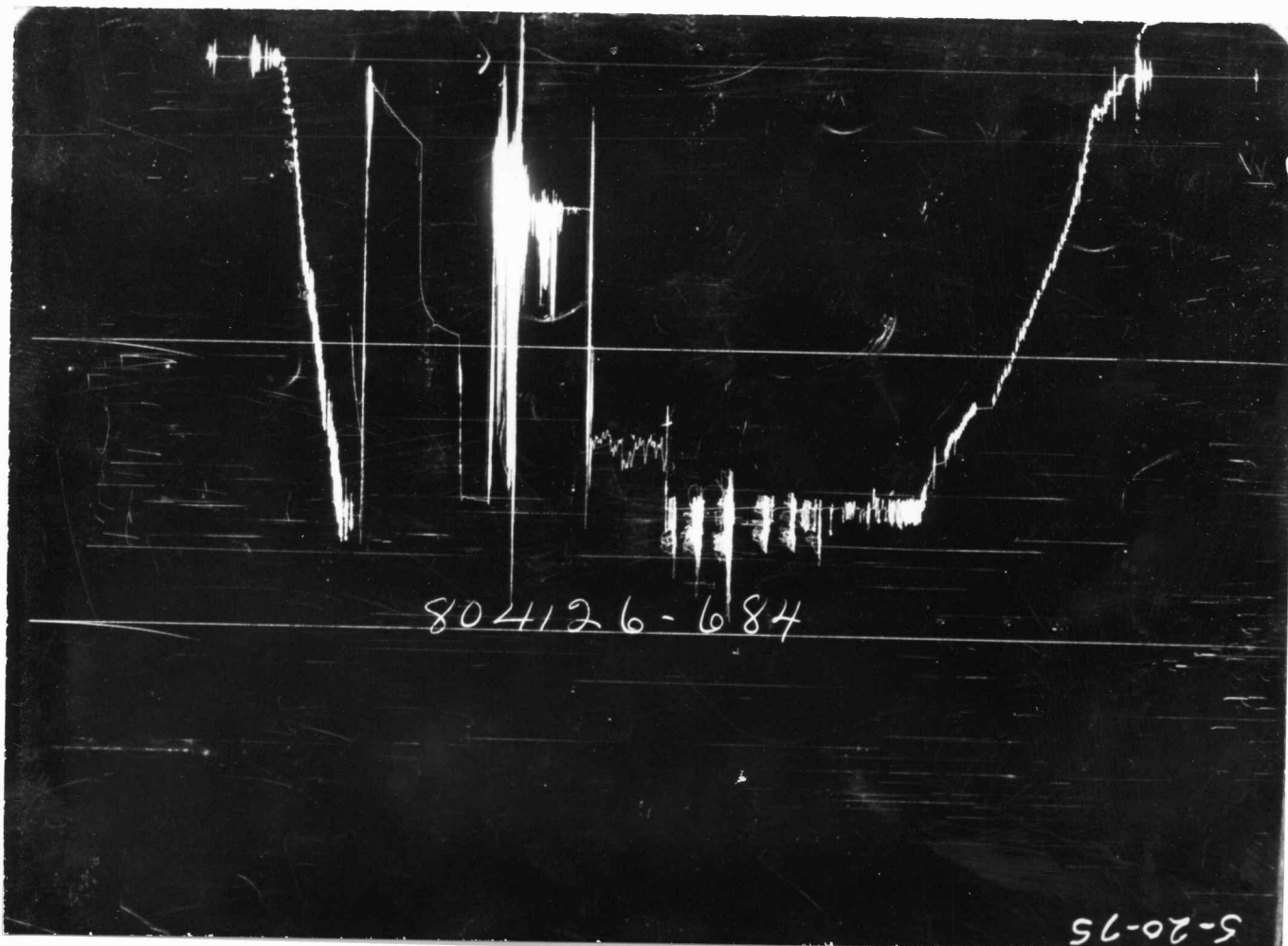
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1'	
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	1164'	
Drill Collars ~~Collar~~ Weight Pipe	3 1/2"	2.764"	1977'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	5'	3142'
Dual CIP Sampler				
Hydro-Spring Tester	5.0"	.75"	5'	3151'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.0"	3.06"	4'	3152'
Hydraulic Jar				
VR Safety Joint	5.0"	1.0"	3'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	4'	3161'
Distributor				
Packer Assembly	6.75"	1.53"	4'	3166'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5.0"	3.84"	39'	
Blanked-Off B.T. Running Case	5.0"	2.44"	4'	3205'
Total Depth				3209'

TEMPERATURE
RECORDER
CHART

10° each circle



PRESSURE



TIME

5-20-75



Each Horizontal Line Equal to 1000 p.s.i.

Gauge No. 684				Depth 3137'				Clock No. 4773				12 hour				Ticket No. 844650							
First Flow Period				First Closed In Pressure				Second Flow Period				Second Closed In Pressure				Third Flow Period				Third Closed In Pressure			
Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.						
0	.0000	64	.0000	.0000	287	.0000	.0000	.0000	306	.0000	.0000	.0000	440										
1	.0332	87	.0196	.0389	832	.0389	.0135**	.0135**	*339	.0389	.0135**	.0135**	832										
2	.0664	136	.0392	.0713	876	.0713	.0336	.0336	368	.0713	.0336	.0336	874										
3	.0995	180	.0588	.1037	900	.1037	.0538	.0538	394	.1037	.0538	.0538	897										
4	.1327	219	.0784	.1362	917	.1362	.0740	.0740	417	.1362	.0740	.0740	912										
5	.1659	255	.0980	.1686	930	.1686	.0941	.0941	429	.1686	.0941	.0941	924										
6	.1990	287	.1176	.2010	939	.2010	.1143	.1143	440	.2010	.1143	.1143	932										
7			.1372		947		.1345				.1345		939										
8			.1568		954		.1546				.1546		945										
9			.1764		960		.1748				.1748		950										
10			.1960		963		.1950				.1950		954										
11																							
12																							
13																							
14																							
15																							

Gauge No. 528				Depth 3208'				Clock No. 2800				12 hour			
First Flow Period				First Closed In Pressure				Second Flow Period				Second Closed In Pressure			
Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.		
0	.0000	65	.0000	.0000	316	.0000	.0000	.0000	334	.0000	.0000	.0000	465		
1	.0338	115	.0200	.0399*	855	.0399*	.0137**	.0137**	366	.0399*	.0137**	.0137**	855		
2	.0677	166	.0400	.0731	900	.0731	.0341	.0341	397	.0731	.0341	.0341	900		
3	.1015	210	.0600	.1063	924	.1063	.0546	.0546	422	.1063	.0546	.0546	924		
4	.1353	251	.0800	.1396	942	.1396	.0751	.0751	445	.1396	.0751	.0751	938		
5	.1692	285	.1000	.1728	954	.1728	.0956	.0956	455	.1728	.0956	.0956	949		
6	.2030	316	.1200	.2060	965	.2060	.1161	.1161	465	.2060	.1161	.1161	959		
7			.1400		973		.1365				.1365		966		
8			.1600		979		.1570				.1570		972		
9			.1800		985		.1775				.1775		977		
10			.2000		990		.1980				.1980		980		
11															
12															
13															
14															
15															

Gauge No. 528				Depth 3208'				Clock No. 2800				12 hour			
First Flow Period				First Closed In Pressure				Second Flow Period				Second Closed In Pressure			
Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.		
0	.0000	65	.0000	.0000	316	.0000	.0000	.0000	334	.0000	.0000	.0000	465		
1	.0338	115	.0200	.0399*	855	.0399*	.0137**	.0137**	366	.0399*	.0137**	.0137**	855		
2	.0677	166	.0400	.0731	900	.0731	.0341	.0341	397	.0731	.0341	.0341	900		
3	.1015	210	.0600	.1063	924	.1063	.0546	.0546	422	.1063	.0546	.0546	924		
4	.1353	251	.0800	.1396	942	.1396	.0751	.0751	445	.1396	.0751	.0751	938		
5	.1692	285	.1000	.1728	954	.1728	.0956	.0956	455	.1728	.0956	.0956	949		
6	.2030	316	.1200	.2060	965	.2060	.1161	.1161	465	.2060	.1161	.1161	959		
7			.1400		973		.1365				.1365		966		
8			.1600		979		.1570				.1570		972		
9			.1800		985		.1775				.1775		977		
10			.2000		990		.1980				.1980		980		
11															
12															
13															
14															
15															

Gauge No. 528				Depth 3208'				Clock No. 2800				12 hour			
First Flow Period				First Closed In Pressure				Second Flow Period				Second Closed In Pressure			
Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.		
0	.0000	65	.0000	.0000	316	.0000	.0000	.0000	334	.0000	.0000	.0000	465		
1	.0338	115	.0200	.0399*	855	.0399*	.0137**	.0137**	366	.0399*	.0137**	.0137**	855		
2	.0677	166	.0400	.0731	900	.0731	.0341	.0341	397	.0731	.0341	.0341	900		
3	.1015	210	.0600	.1063	924	.1063	.0546	.0546	422	.1063	.0546	.0546	924		
4	.1353	251	.0800	.1396	942	.1396	.0751	.0751	445	.1396	.0751	.0751	938		
5	.1692	285	.1000	.1728	954	.1728	.0956	.0956	455	.1728	.0956	.0956	949		
6	.2030	316	.1200	.2060	965	.2060	.1161	.1161	465	.2060	.1161	.1161	959		
7			.1400		973		.1365				.1365		966		
8			.1600		979		.1570				.1570		972		
9			.1800		985		.1775				.1775		977		
10			.2000		990		.1980				.1980		980		
11															
12															
13															
14															
15															

Gauge No. 528				Depth 3208'				Clock No. 2800				12 hour			
First Flow Period				First Closed In Pressure				Second Flow Period				Second Closed In Pressure			
Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.		
0	.0000	65	.0000	.0000	316	.0000	.0000	.0000	334	.0000	.0000	.0000	465		
1	.0338	115	.0200	.0399*	855	.0399*	.0137**	.0137**	366	.0399*	.0137**	.0137**	855		
2	.0677	166	.0400	.0731	900	.0731	.0341	.0341	397	.0731	.0341	.0341	900		
3	.1015	210	.0600	.1063	924	.1063	.0546	.0546	422	.1063	.0546	.0546	924		
4	.1353	251	.0800	.1396	942	.1396	.0751	.0751	445	.1396	.0751	.0751	938		
5	.1692	285	.1000	.1728	954	.1728	.0956	.0956	455	.1728	.0956	.0956	949		
6	.2030	316	.1200	.2060	965	.2060	.1161	.1161	465	.2060	.1161	.1161	959		
7			.1400		973		.1365				.1365		966		
8			.1600		979		.1570				.1570		972		
9			.1800		985		.1775				.1775		977		
10			.2000		990		.1980				.1980		980		
11															
12															
13															
14															
15															

Gauge No. 528				Depth 3208'				Clock No. 2800				12 hour			
First Flow Period				First Closed In Pressure				Second Flow Period				Second Closed In Pressure			
Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.		
0	.0000	65	.0000	.0000	316	.0000	.0000	.0000	334	.0000	.0000	.0000	465		
1	.0338	115	.0200	.0399*	855	.0399*	.0137**	.0137**	366	.0399*	.0137**	.0137**	855		
2	.0677	166	.0400	.0731	900	.0731	.0341	.0341	397	.0731	.0341	.0341	900		
3	.1015	210	.0600	.1063	924	.1063	.0546	.0546	422	.1063	.0546	.0546	924		
4	.1353	251	.0800	.1396	942	.1396	.0751	.0751	445	.1396	.0751	.0751	938		
5	.1692	285	.1000	.1728	954	.1728	.0956	.0956	455	.1728	.0956	.0956	949		
6	.2030	316	.1200	.2060	965	.2060	.1161	.1161	465	.2060	.1161	.1161	959		
7			.1400		973		.1365				.1365		966		
8			.1600		979		.1570				.1570		972		
9			.1800		985		.1775				.1775		977		
10			.2000		990		.1980				.1980		980		
11															
12															
13															
14															
15															

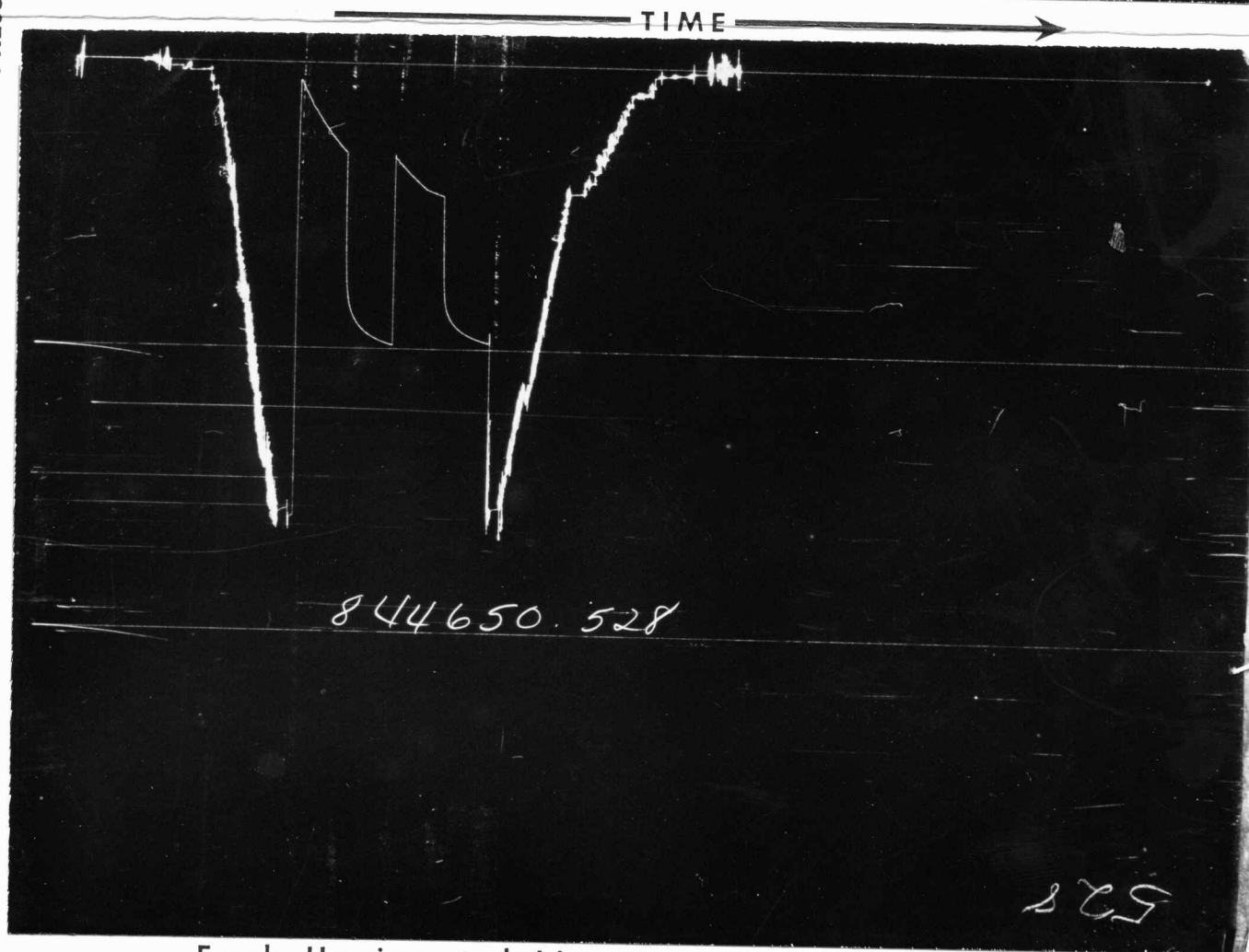
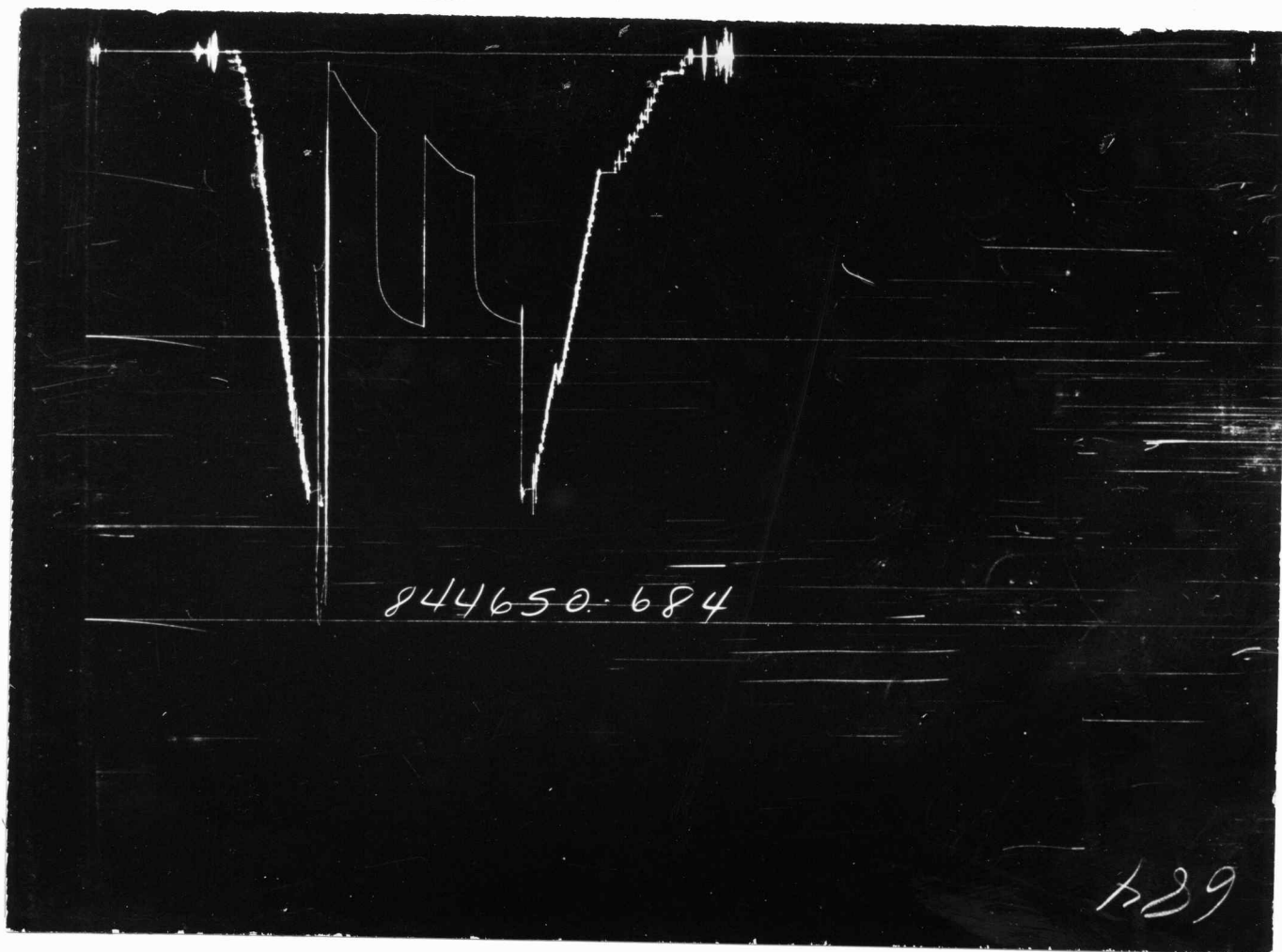
Gauge No. 528				Depth 3208'				Clock No. 2800				12 hour			
First Flow Period				First Closed In Pressure				Second Flow Period				Second Closed In Pressure			
Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.	Time Defl. ".000"	Log $\frac{t + \theta}{\theta}$	Time Defl. ".000"	PSIG Temp. Corr.		

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	5.75"	2.75"	12"	
Reversing Sub				
Water Cushion Valve				
Drill Pipe	3.5"	2.764"	2301'	
Drill Collars Weight Pipe	3.5"	2.764"	828'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	67"	3131'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	3136'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	3137'
Hydraulic Jar	5"	1.75"	60"	
VR Safety Joint	5"	1"	33.40"	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	54"	3151'
Distributor				
Packer Assembly	6.75"	1.53"	54"	3156'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3.24"	48'	
Blanked-Off B.T. Running Case	5"	2.44"	48.71"	3208'
Total Depth				3211'

TEMPERATURE
RECORDER
CHART



10° each circle



Each Horizontal Line Equal to 1000 p.s.i.

FLUID SAMPLE DATA						Date	Ticket Number
Sampler Pressure _____ P.S.I.G. at Surface						5-27-75	804001
Recovery: Cu. Ft. Gas _____						Kind of Job	Halliburton District
cc. Oil _____						OPEN HOLE	HILL CITY
cc. Water _____						Tester	MR. PFANNENSTIEL Witness MR. WHARTON
cc. Mud _____						Drilling Contractor	ABERCROMBIE DRILLING INC. DR S
Tot. Liquid cc. _____						EQUIPMENT & HOLE DATA	
Gravity 25.8 ° API @ 60 ° F.						Formation Tested	Lansing Lime
Gas/Oil Ratio _____ cu. ft./bbl.						Elevation	2377' KB
RESISTIVITY _____ CHLORIDE CONTENT _____						Net Productive Interval	4' Ft.
Recovery Water @ _____ ° F. ppm						All Depths Measured From	Kelly Bushing
Recovery Mud @ _____ ° F. ppm						Total Depth	3234' Ft.
Recovery Mud Filtrate @ _____ ° F. ppm						Main Hole/Casing Size	7 7/8-8 5/8"
Mud Pit Sample @ _____ ° F. ppm						Drill Collar Length	828' WP I.D. 2.764"
Mud Pit Sample Filtrate @ _____ ° F. ppm						Drill Pipe Length	2362' I.D. 2.764"
Mud Weight 9.3 vis 47 cp						Packer Depth(s)	3211'-3216' Ft.
						Depth Tester Valve	3196' Ft.
TYPE		AMOUNT		Depth Back Pres. Valve		Surface Choke	Bottom Choke
Cushion				Ft.		1/4" Bubble hose	3/4"
Recovered	150	Feet of	oil				
Recovered	60	Feet of	heavy mud cut oil				
Recovered		Feet of	CHARTS INDICATE PARTIAL PLUGGING OF ANCHOR PERFORATIONS DURING INITIAL FLOW PERIOD.				
Recovered		Feet of					
Recovered		Feet of					
Remarks Opened tool for 30 minute first flow with a fair to a strong blow. Closed tool for 45 minute first closed in pressure, bled off drill pipe. Reopened tool for 60 minute second flow with a fair to a strong blow. Closed tool for 45 minute second closed in pressure. Bypass and pulledout of hole.							
TEMPERATURE		Gauge No. 684 Depth: 3197 Ft.	Gauge No. 528 Depth: 3230 Ft.	Gauge No. Depth:	TIME		
Est. °F.	12 Hour Clock	12 Hour Clock	Hour Clock	Tool A.M. Opened 07:00 P.M.			
	Blanked Off NO	Blanked Off YES	Blanked Off	Opened 10:00 A.M. Bypass P.M.			
Actual 98 °F.	Pressures		Pressures		Pressures		
	Field	Office	Field	Office	Field	Office	Reported Minutes
Initial Hydrostatic		1580	1596	1596			Computed Minutes
First Period Flow	Initial	11	26	28			
	Final	47	73	75			
	Closed in	675	686	689	30	30	
Second Period Flow	Initial	64	76	80			
	Final	100	112	113	60	60	
	Closed in	666	681	678	45	45	
Third Period Flow	Initial						
	Final						
	Closed in						
Final Hydrostatic		1554	1563	1568			

Legal Location Sec. - Twp. - Rng.	14-15-26W
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Lease Name

COZAD

Well No.

Test N

3216-3234	Tested Interval
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ABERCROMBIE DRILLING INCORPORATED
Lease Owner/Company Name

Lease Owner/Company Name

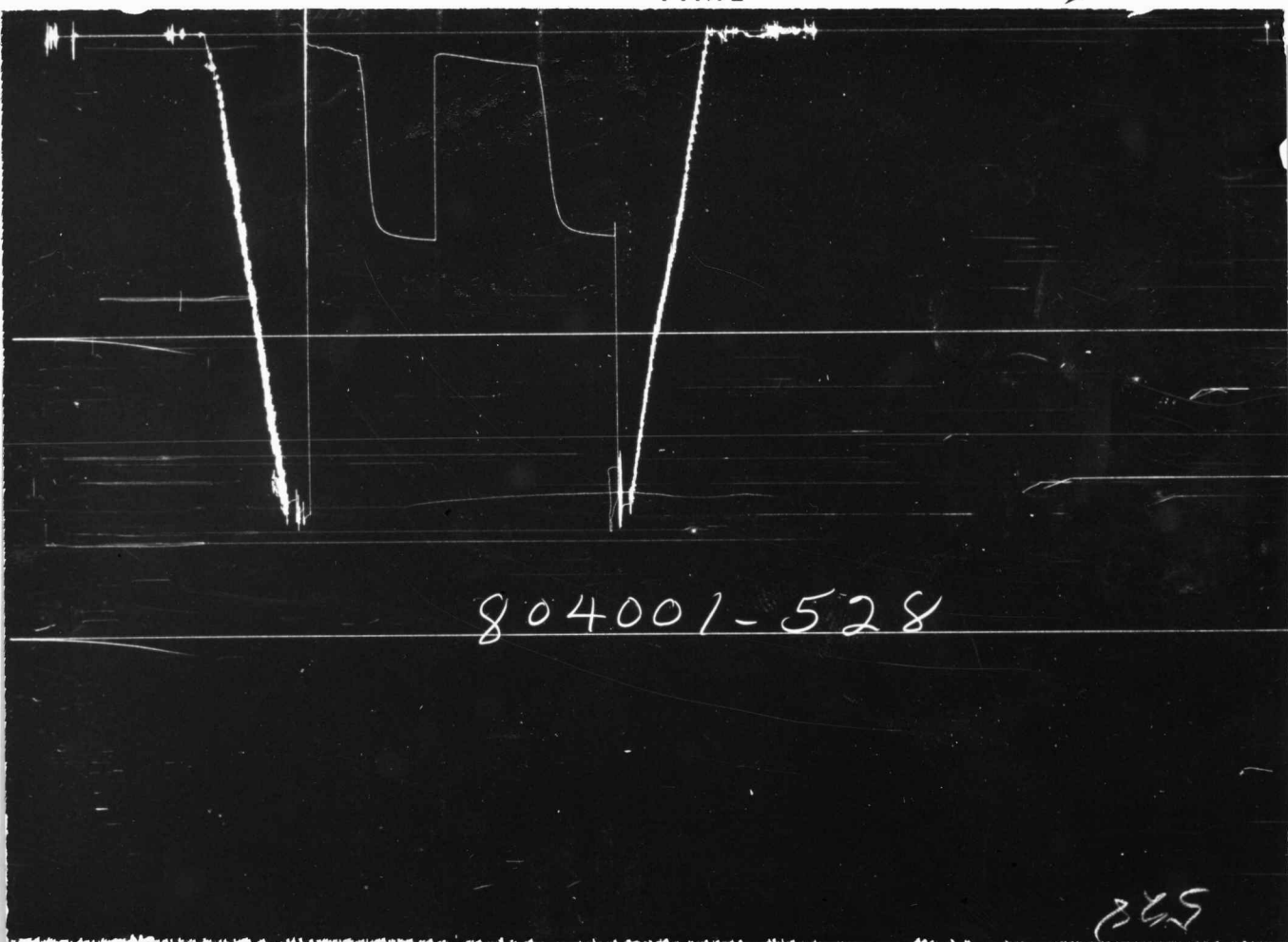
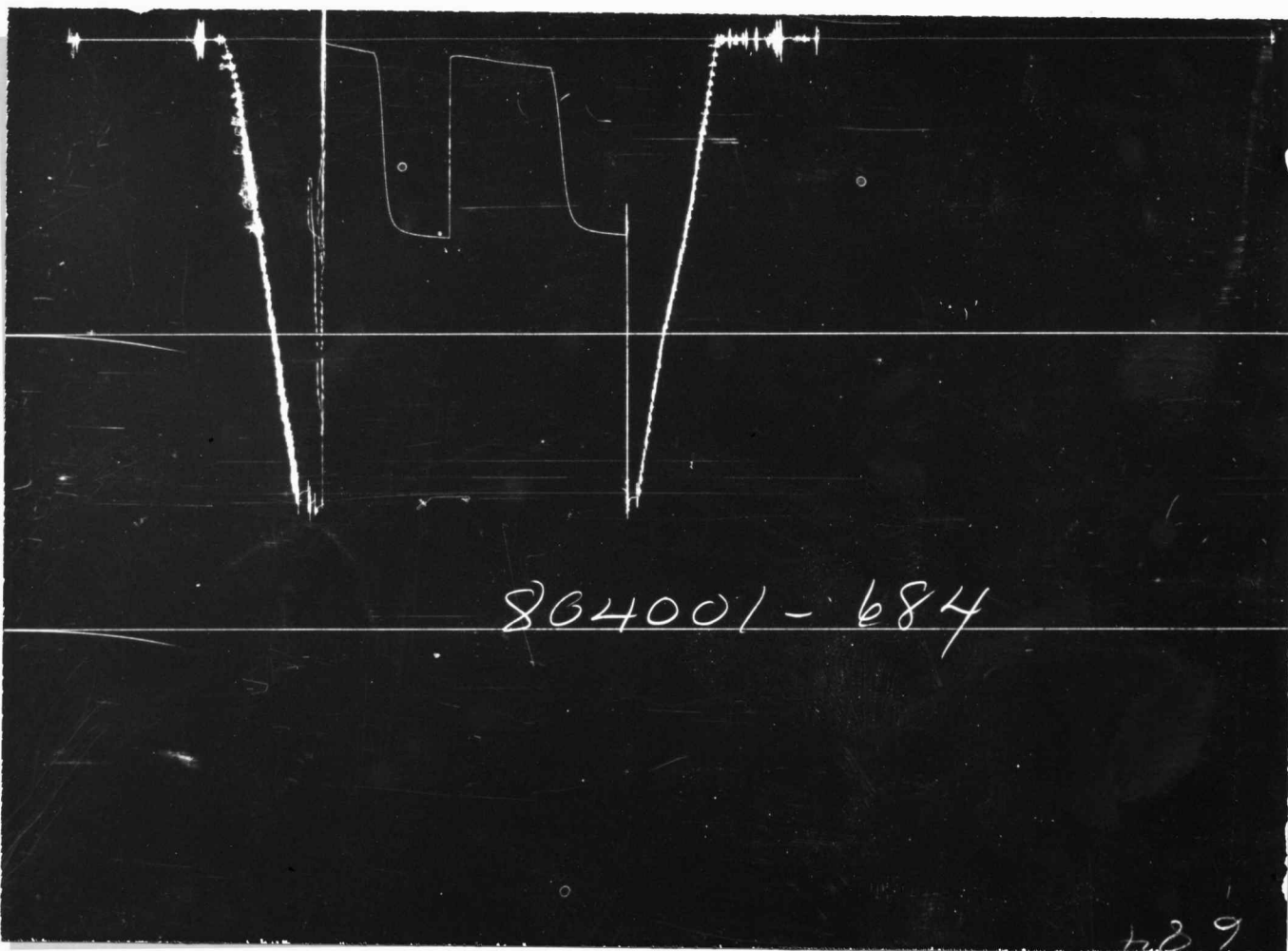
5

Gauge No. 684		Depth		3197'		Clock No. 4773		12 hour		Ticket No. 804001	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0 .000	11	.000		47	.000	64	100				
1 .0338	20	.0199		127	.0657	61	179				
2 .0677	25	.0398		362	.1313	66	326				
3 .1015	30	.0597		569	.1970	78	500				
4 .1353	36	.0796		625	.2627	86	591				
5 .1692	43	.0995		643	.3283	93	625				
6 .2030	47	.1193		655	.3940	100	639				
7		.1392		661			648				
8		.1591		665			653				
9		.1790		667			655				
10		.1989		669			659				
11		.2188		671			661				
12		.2387		673			663				
13		.2586		674			664				
14		.2785		675			665				
15		.2980		675			666				

Gauge No. 528		Depth		3230'		Clock No. 2800		hour		12	
0 .000	28	.000		75	.000	80	113				
1 .0343	41	.0201		178	.0668	75	203				
2 .0687	46	.0401		421	.1337	83	361				
3 .1030	50	.0602		595	.2005	93	530				
4 .1373	59	.0803		642	.2673	100	604				
5 .1717	66	.1004		660	.3342	107	637				
6 .2060	75	.1204		668	.4010	113	652				
7		.1405		674			660				
8		.1606		677			664				
9		.1806		680			667				
10		.2007		682			670				
11		.2208		684			673				
12		.2408		686			674				
13		.2609		687			676				
14		.2810		688			677				
15		.3010		689			678				
Reading Interval 5		3		10		3					Minutes

REMARKS:

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	12"	
Water Cushion Valve				
Drill Pipe	3.5"	2.764"	2362'	
Drill Collars	3.5"	2.764"	828' Wp	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	67"	3191'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	3196'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	3197'
Hydraulic Jar	5"	1.75"	60"	
VR Safety Joint	5"	1"	33.40"	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	54"	3211'
Distributor				
Packer Assembly	6.75"	1.53"	54"	3216'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3.24"	11'	
Blanked-Off B.T. Running Case	5"	2.44"	48.71"	3230'
Total Depth				3234'



Each Horizontal Line Equal to 1000 p.s.i.

TEMPERATURE
RECORDER
CHART



10° each circle

14-15-26W

FLUID SAMPLE DATA				Date 5-27-75		Ticket Number 804002	
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job OPEN HOLE		Halliburton District HILL CITY	
Recovery: Cu. Ft. Gas _____				Tester MR. PFANNENSTIEL		Witness MR. WHARTON	
cc. Oil _____				Drilling Contractor ABERCROMBIE DRILLING COMPANY SM S			
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud _____				Formation Tested Kansas City Lime			
Tot. Liquid cc. _____				Elevation 2377' Kelly bushing Ft.			
Gravity _____ ° API @ _____ °F.				Net Productive Interval 7' Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From Kelly bushing			
RESISTIVITY _____ CHLORIDE CONTENT _____				Total Depth 3243' Ft.			
Recovery Water _____ @ _____ °F. _____ ppm				Main Hole/Casing Size 7 7/8" 8 5/8"			
Recovery Mud _____ @ _____ °F. _____ ppm				Drill Collar Length 828' I.D. 2.764" WP			
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm				Drill Pipe Length 2362' I.D. 2.764" {			
Mud Pit Sample _____ @ _____ °F. _____ ppm				Packer Depth(s) 3211-3216' Ft.			
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm				Depth Tester Valve 3196' Ft.			
Mud Weight 9.0 vis 55 cp				Surface Choke 1/4" Bottom Choke 3/4"			
Cushion TYPE AMOUNT				Depth Back Pres. Valve			
Recovered 60 Feet of oil				Bubble hose			
Recovered 30 Feet of muddy oil							
Recovered 240 Feet of oil cut mud (15% oil-5% water)							
Recovered _____ Feet of _____							
Recovered _____ Feet of _____							
Remarks Tool opened for 45 minute first flow period with a fair blow. Closed tool for 45 minute first closed in pressure period, bled off drill pipe. Reopened tool for 45 minute second flow with fair to strong blow. Closed tool for 45 minute second closed in pressure period.							
TEMPERATURE		Gauge No. 684	Gauge No. 528	Gauge No.	TIME		
Depth: 3197 Ft.		Depth: 3240 Ft.	Depth: _____ Ft.				
12 Hour Clock		12 Hour Clock	Hour Clock	Tool A.M.			
Blanked Off NO		Blanked Off YES	Blanked Off	Opened 1830 P.M.			
Actual 101 °F.		Pressures	Pressures	Opened A.M.			
		Pressures	Pressures	Bypass 2130 P.M.			
		Field Office	Field Office	Reported Computed			
		Field Office	Field Office	Minutes Minutes			
Initial Hydrostatic		1577	1619 1596				
Flow Initial		14	23 41				
Flow Final		90	107 111				
Closed in		925	945 943	45 45			
Flow Initial		108	129 137	45 45			
Flow Final		163	181 184	45 45			
Closed in		893	911 911	45 45			
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic		1564	1575 1583				

Legal Location Sec. - Twp. - Rng.

14 1 S 26 W

Field Area SOUTH EAST

LANSON

County DECATUR

State KANSAS

COZAD

Well No. 1

Test No. 5

3216 - 3243'

ABERCROMBIE DRILLING INCORPORATED

Lease Owner/Company Name

Gauge No. 684				Depth 3197'				Clock No. 4773				12 hour				Ticket No. 804002							
First Flow Period				First Closed In Pressure				Second Flow Period				Second Closed In Pressure				Third Flow Period				Third Closed In Pressure			
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Log $\frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Log $\frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Log $\frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Log $\frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.		
0 .0000	14	.0000	90		.0000	108	.0000			.0000	163												
1 .0592	34	.0336*	487		.0590	118			.0332*		579												
2 .1184	53	.0604	724		.1180	130			.0598		734												
3 .1776	65	.0872	771		.1770	140			.0864		775												
4 .2368	78	.1141	798		.2360	151			.1130		809												
5 .2960	90	.1409	824		.2950	163			.1395		836												
6		.1678	851						.1661		854												
7		.1946	876						.1927		865												
8		.2214	897						.2193		875												
9		.2483	910						.2459		882												
10		.2751	919						.2724		889												
11		.3020	925						.2990		893												
12																							
13																							
14																							
15																							

Gauge No. 528				Depth 3240'				Clock No. 2800				12 hour			
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Log $\frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Log $\frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.		
0 .0000	41	.0000	111		.0000	137			.0000		184				
1 .0604	58	.0339*	496		.0606	142			.0339*		601				
2 .1208	75	.0610	742		.1212	152			.0610		757				
3 .1812	88	.0881	789		.1818	160			.0881		796				
4 .2416	101	.1152	815		.2424	170			.1152		829				
5 .3020	111	.1423	841		.3030	184			.1423		855				
6		.1694	866						.1694		872				
7		.1966	891						.1966		883				
8		.2237	914						.2237		893				
9		.2508	927						.2508		900				
10		.2779	936						.2779		906				
11		.3050	943						.3050		911				
12															
13															
14															
15															

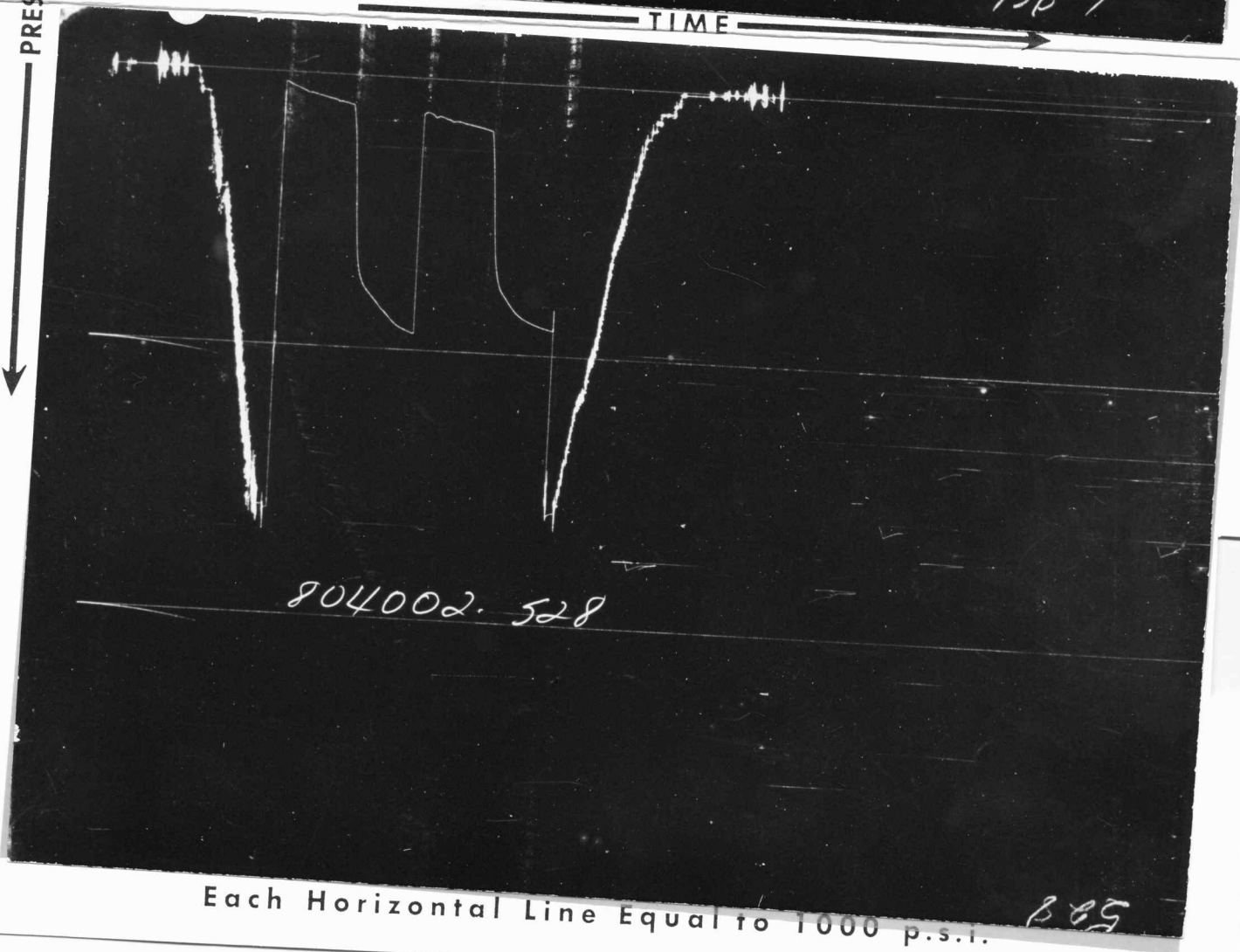
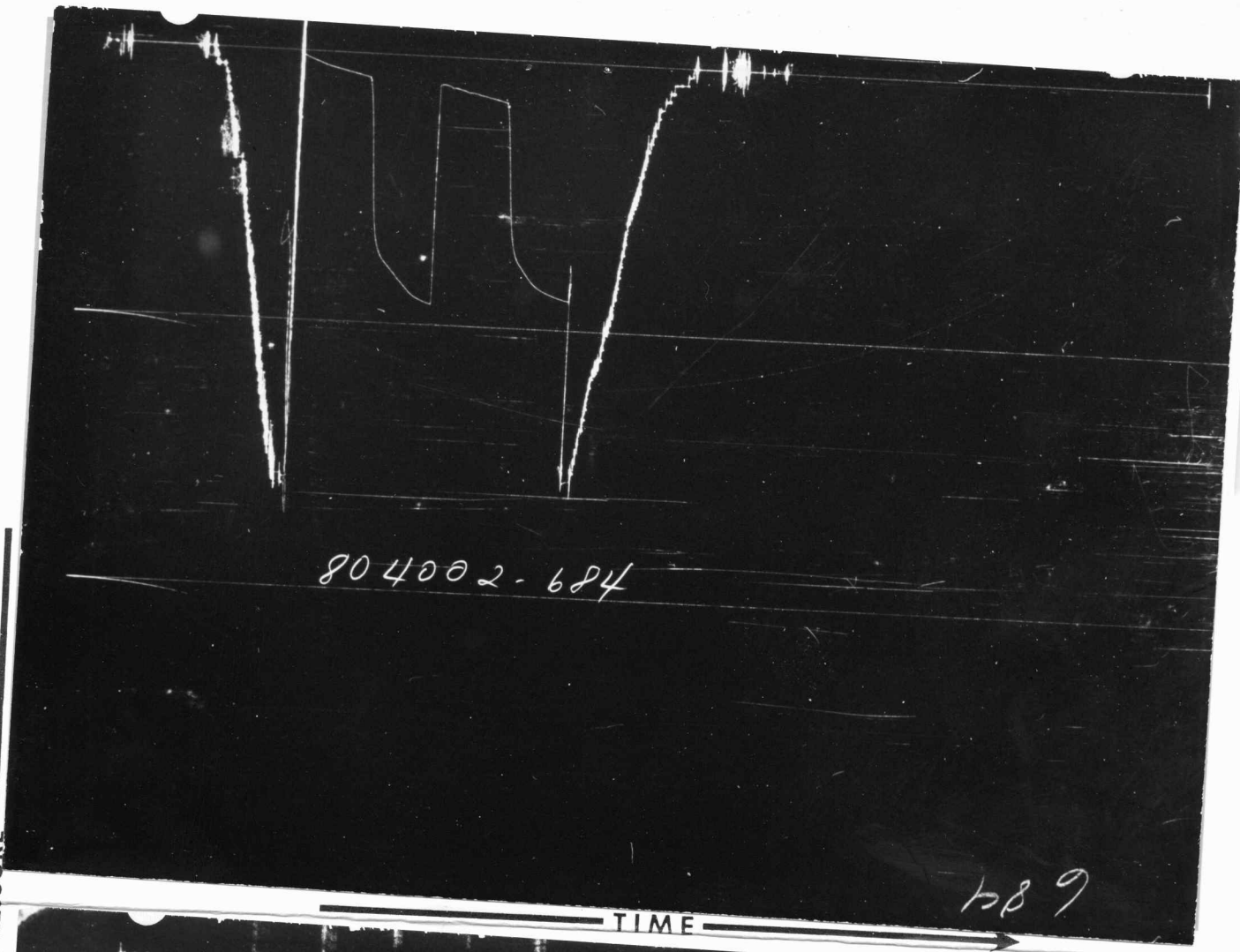
Reading Interval 9				4				9				4				Minutes			
REMARKS: *First interval is equal to 5 minutes.																			

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	12"	
Water Cushion Valve				
Drill Pipe	3.5"	2.764"	2362'	
Drill Collars = Weight Pipe	3.5"	2.764"	828'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	67"	3191'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	3196'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	3197'
Hydraulic Jar	5"	1.75"	60"	
VR Safety Joint	5"	1"	33.40"	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	54"	3211'
Distributor				
Packer Assembly	6.75"	1.53"	54"	3216'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3.24"	20'	
Blanked-Off B.T. Running Case	5"	2.44"	48.71"	3240'
Total Depth				3243'

TEMPERATURE
RECORDER
CHART



10° each circle



Each Horizontal Line Equal to 1000 p.s.i.