

DINGES

Lease Name

A-1

Well No.

1

Test No.

4344' - 4380'

Tested Interval

PAN WESTERN PETROLEUM, INCORPORATED

Lease Owner/Company Name

Legal Location
Sec. - Twp. - Rng. 18 - 19 - 24 W

Field Area
Mea. From Tester Valve

County
NESS


State
KANSAS

FLUID SAMPLE DATA				Date	Ticket Number		
Sampler Pressure _____ P.S.I.G. at Surface				6-21-78	318124		
Recovery: Cu. Ft. Gas _____				Kind of Job	Halliburton District		
cc. Oil _____				OPEN HOLE TEST	HAYS		
cc. Water _____				Tester	GARRISON		
cc. Mud _____				Witness	T. ELSTER		
Tot. Liquid cc. _____				Drilling Contractor	H-30 DRILLING, INCORPORATED PW		
Gravity _____ ° API @ _____ °F.				EQUIPMENT & HOLE DATA			
Gas/Oil Ratio _____ cu. ft./bbl.				Formation Tested	Mississippi		
RESISTIVITY _____ CHLORIDE CONTENT _____				Elevation	2322' G.L. Ft.		
Recovery Water @ _____ °F. _____ ppm				Net Productive Interval	_____ Ft.		
Recovery Mud @ _____ °F. _____ ppm				All Depths Measured From	Kelly Bushing		
Recovery Mud Filtrate @ _____ °F. _____ ppm				Total Depth	4380' Ft.		
Mud Pit Sample @ _____ °F. _____ ppm				Main Hole/Casing Size	7 7/8"		
Mud Pit Sample Filtrate @ _____ °F. _____ ppm				Drill Collar Length	126' WP I.D. 2.764" WP		
Mud Weight 9.6 vis 40 sec				Drill Pipe Length	4197' I.D. 3.826"		
				Packer Depth(s)	4338' - 4344' Ft.		
				Depth Tester Valve	4327' Ft.		
Cushion		TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke	
				Ft.	1/4"	3/4"	
Recovered		30	Feet of	very slightly oil cut mud.			
Recovered			Feet of				
Recovered			Feet of				
Recovered			Feet of				
Recovered			Feet of				
Remarks							
- SEE PRODUCTION TEST DATA SHEET -							
TEMPERATURE							
Gauge No. 6765		Gauge No. 6764		Gauge No.		TIME	
Depth: 4348 Ft.		Depth: 4376 Ft.		Depth: _____ Ft.			
12 Hour Clock		12 Hour Clock		Hour Clock		Tool _____ A.M.	
Blanked Off NO		Blanked Off YES		Blanked Off		Opened 1745 P.M.	
4375' @						Opened _____ A.M.	
Actual 124 °F.						Bypass 2019 P.M.	
Pressures		Pressures		Pressures		Reported	Computed
Field		Office		Field		Minutes	Minutes
Initial Hydrostatic		2247		2343		2266	
First Period	Flow Initial	19		32		38	
	Flow Final	25		32		39	
	Closed in	104		115		118	60
Second Period	Flow Initial	31		32		49	
	Flow Final	31		42		47	
	Closed in	108		115		125	30
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic		2232		2333		2250	

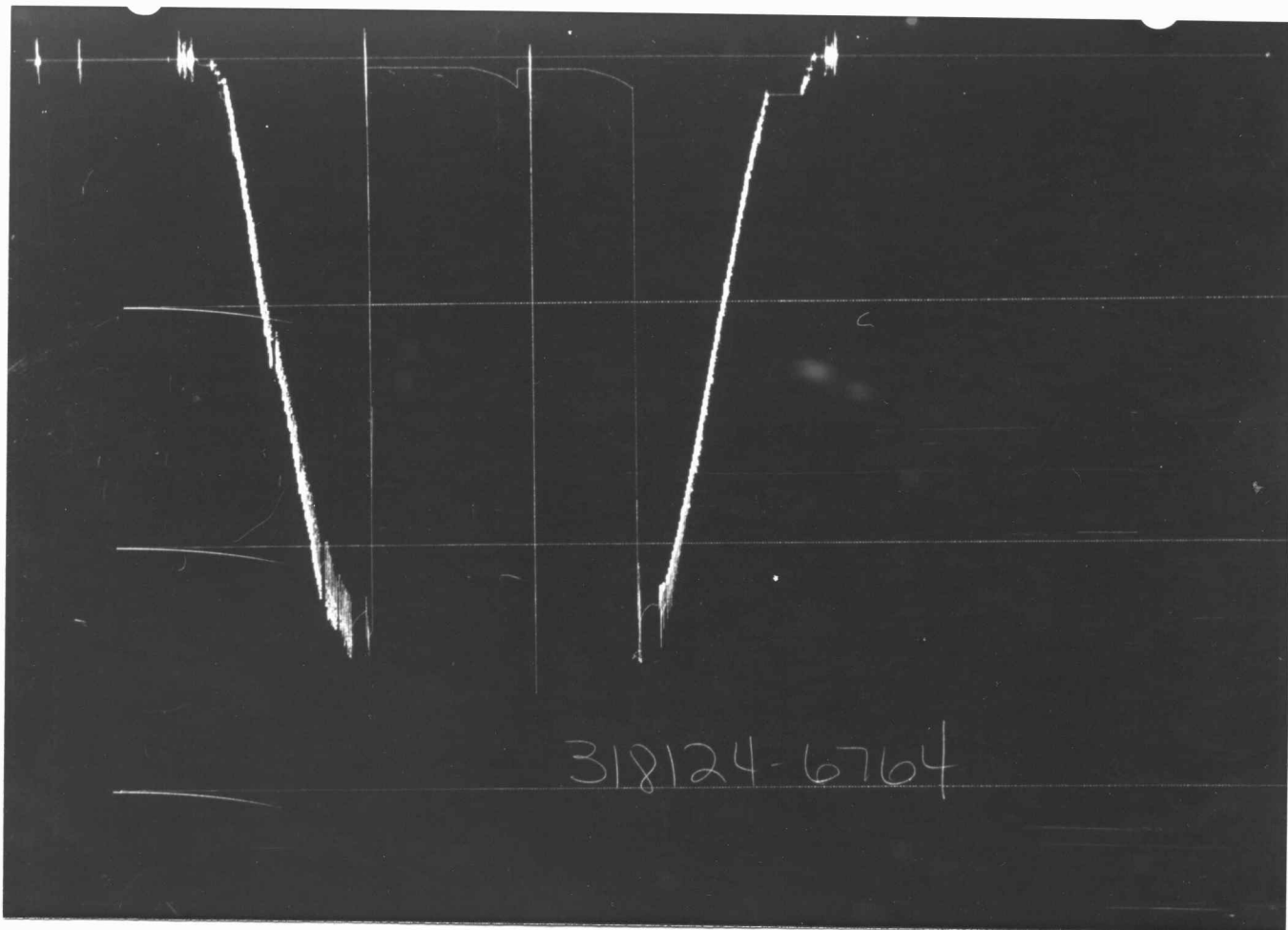
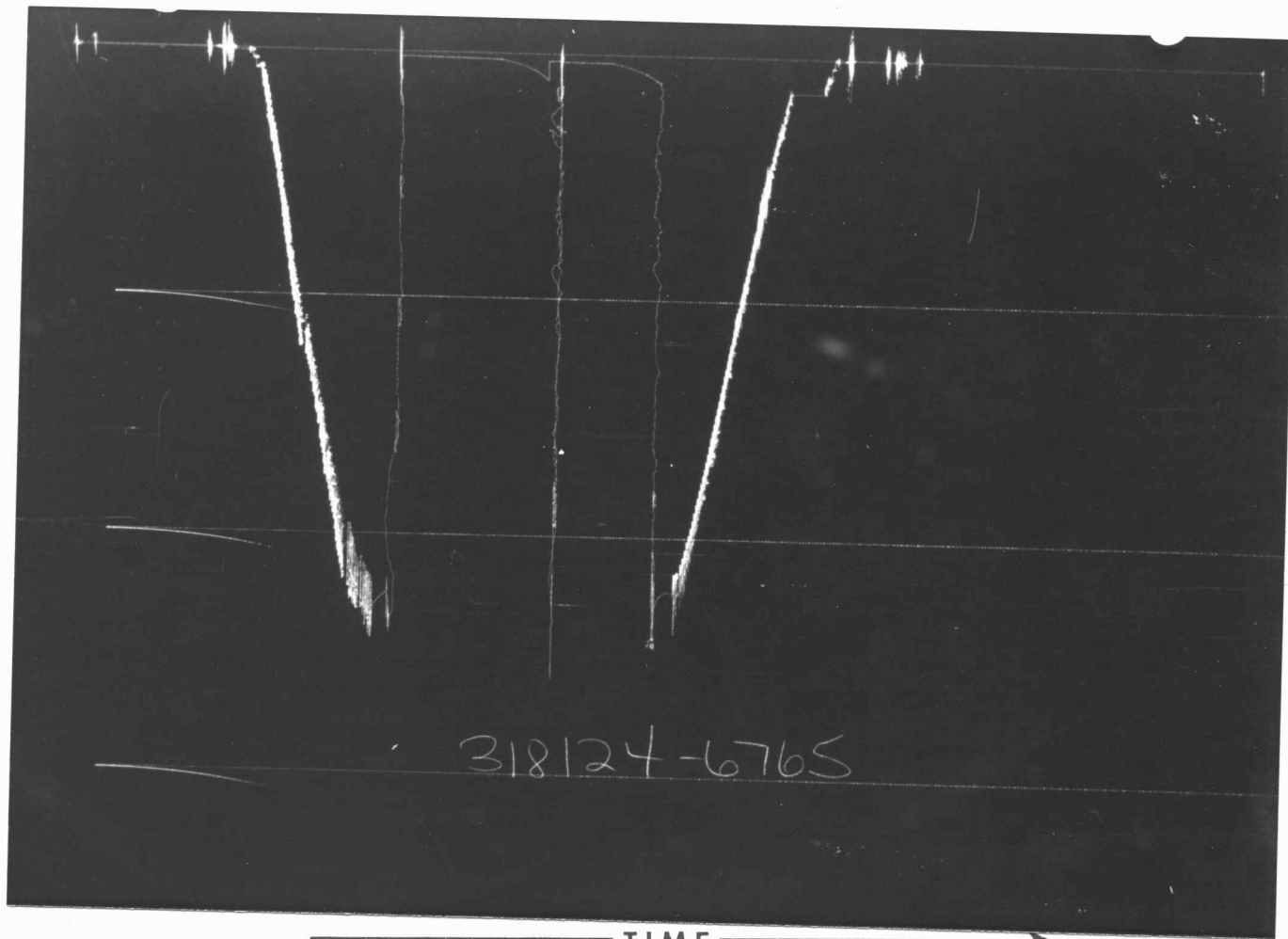
Casing perms. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 318124
 Gas gravity _____ Oil gravity _____ GOR _____
 Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time	a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
1120						Time called. Ready now.
1220						On location. Rig made short trip.
						Rig pulled drill pipe for DST #1.
1535						Picked up and made up tool.
1600						Tool through table.
1610						Rig started drill pipe.
1741						Tool on bottom.
1745						Opened tool with a very weak blow
						that died in 20 minutes
1845						Closed tool.
1915						Reopened tool with no blow.
1921						Flushed tool.
1925						Reopened tool with no blow.
1949						Closed tool.
2019						Tool off bottom.
2210						Tool back through table.
2215						Break down tool.
2245						Read charts.
2300						Job completed.

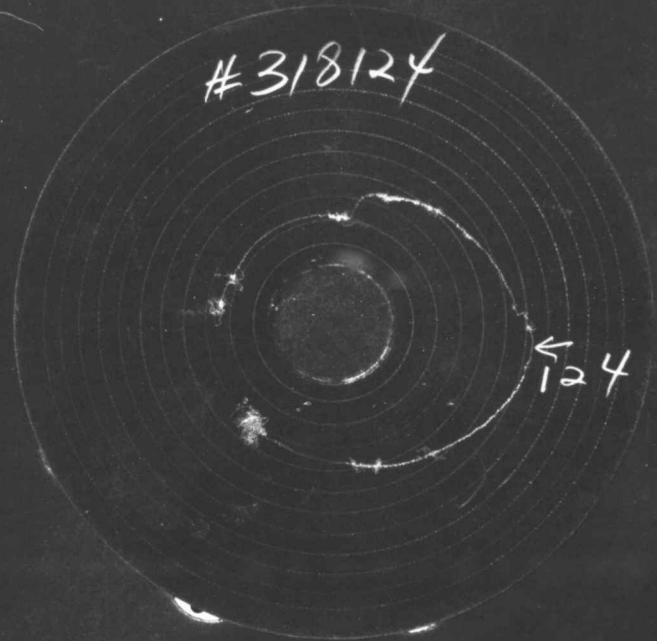


	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	4197'	
Drill Collars Weight Pipe	4.5"	2.764"	126.14'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	6.05'	4321'
Dual CIP Sampler				
Hydro-Spring Tester	5.0"	.75"	5.00'	4327'
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4338'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	4344'
Flush Joint Anchor	5.0"	3.84"	24.00'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case AP	5.0"	3.75"	4.00'	4348'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor Temp. Case	5.0"	3.75"	2.00'	4375'
Blanked-Off B.T. Running Case	5.0"	2.75"	4.00'	4376'
Total Depth				4380'



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

TEMPERATURE RECORDER CHART



10° each circle

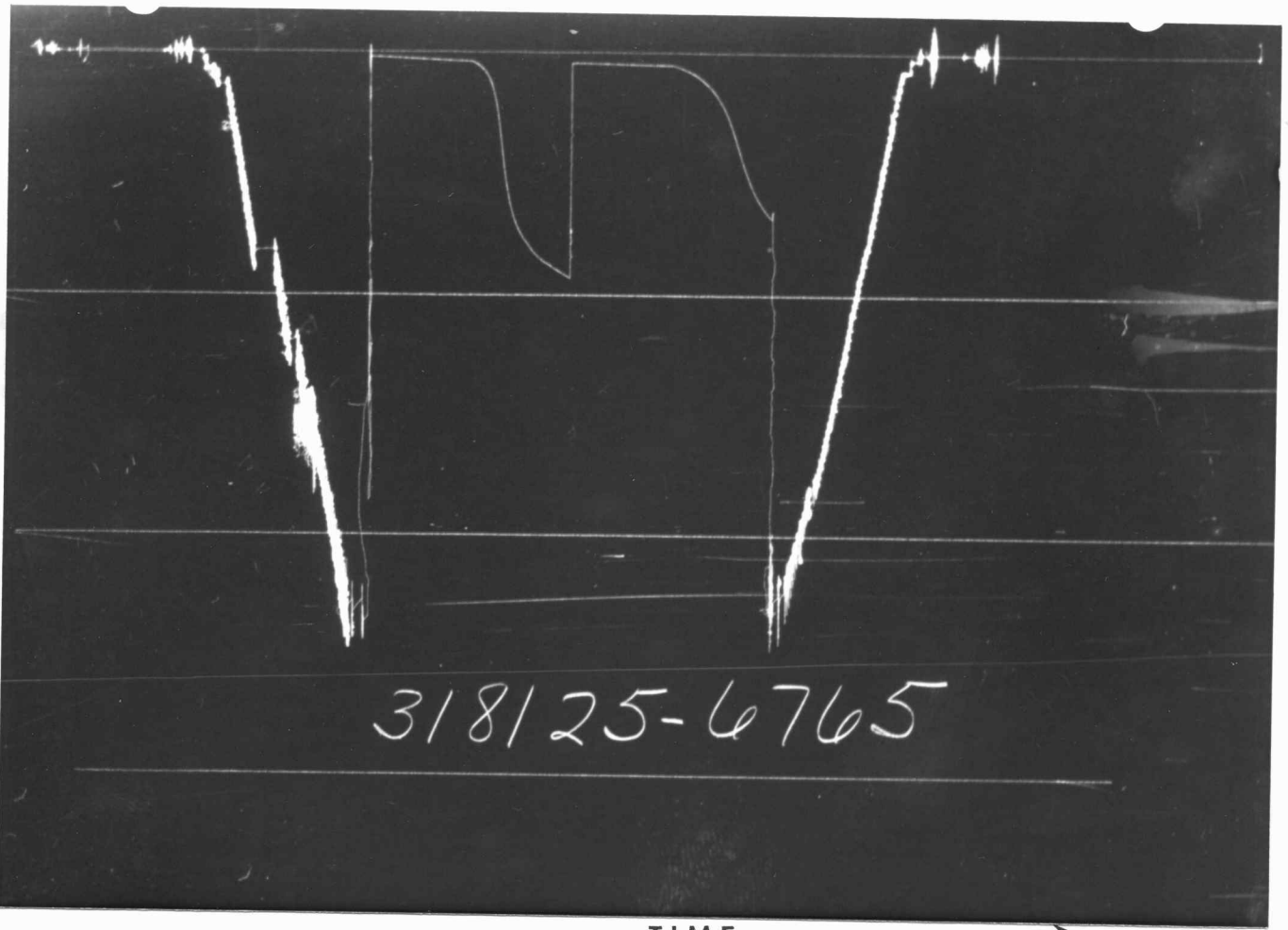
- OP_4 = Theoretical Open Flow Potential with/Damage Removed Min. MCF/D
- P_s = Extrapolated Static Pressure P_{sig.}
- P_f = Final Flow Pressure P_{sig.}
- P_{ot} = Potentiometric Surface (Fresh Water *) Feet
- Q = Average Adjusted Production Rate During Test bbls/day
- Q_1 = Theoretical Production 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 —
- μ = Viscosity Gas or Liquid CP
- Log** = Common Log

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

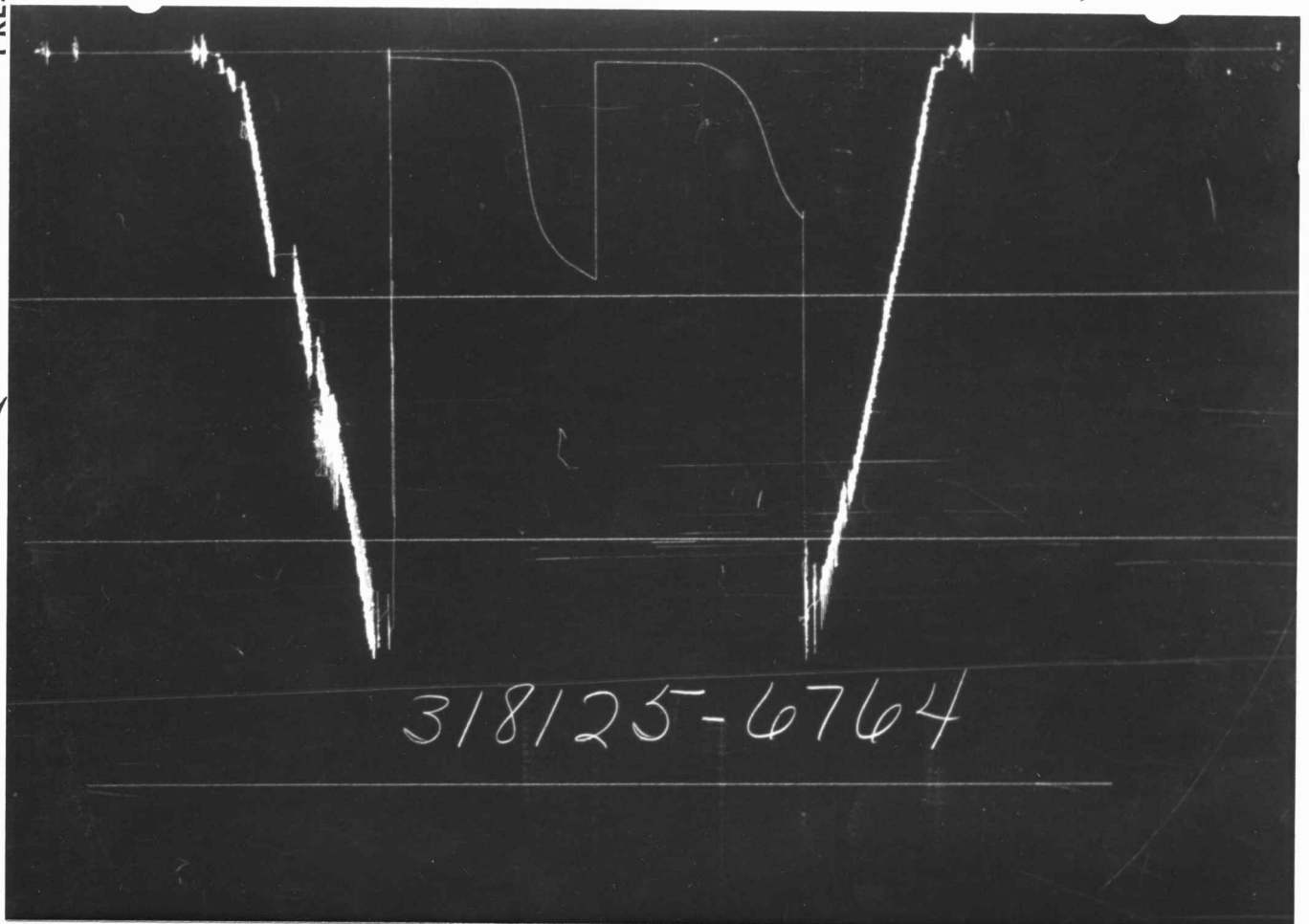
Gauge No. 6765		Depth 4380'		Clock No. 17421		12 hour		Ticket No. 318125	
First Flow Period		First Closed In Pressure		Second Flow Period		Second Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$		Log $\frac{t + \theta}{\theta}$	
0	.0000	.0000	38	.0000	43	.0000	50		
1	.0665	.0268	48	.0660	44	.0270	58		
2	.1330	.0536	69	.1320	46	.0540	70		
3	.1995	.0804	114	.1980	47	.0810	83		
4	.2660	.1072	218	.2640	48	.1080	101		
5	.3325	.1340	441	.3300	49	.1350	125		
6	.3990	.1608	620	.3960	50	.1620	153		
7		.1876	706			.1890	193		
8		.2144	762			.2160	244		
9		.2412	800			.2430	317		
10		.2680	834			.2700	401		
11		.2948	858			.2970	488		
12		.3216	874			.3240	559		
13		.3484	893			.3510	611		
14		.3752	911			.3780	653		
15		.4020	927			.4050	680		
Gauge No. 6764		Depth 4386'		Clock No. 11647		12 hour			
0	.0000	.0000	41	.0000	46	.0000	53		
1	.0668	.0267	55	.0673	47	.0269	62		
2	.1337	.0535	78	.1347	48	.0539	72		
3	.2005	.0802	128	.2020	49	.0808	86		
4	.2673	.1069	245	.2693	50	.1077	105		
5	.3342	.1337	467	.3367	52	.1347	128		
6	.4010	.1604	636	.4040	53	.1616	157		
7		.1871	718			.1885	195		
8		.2139	771			.2155	248		
9		.2406	810			.2424	320		
10		.2673	841			.2693	404		
11		.2941	866			.2963	492		
12		.3208	881			.3232	562		
13		.3475	900			.3501	614		
14		.3743	918			.3771	655		
15		.4010	933			.4040	685		
Reading Interval 10		4		10		4		Minutes	
REMARKS:									

5

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	4218'	
Drill Collars	4.5" WP	2.764"	126'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6.05'	4357'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4364'
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4368'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	4374'
Flush Joint Anchor	5"	3.84"	4'	
Pressure Equalizing Tube				
AP				
Blanked-Off B.T. Running Case	5"	3.75"	4'	4380'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Temp. Case	5"	3.75"	2'	4385'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4386'
Total Depth				4390'



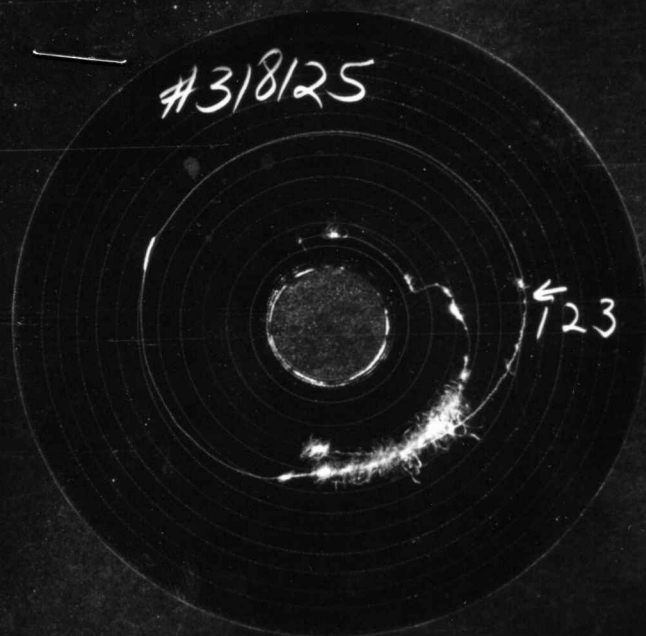
318125-6765



318125-6764

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

TEMPERATURE RECORDER CHART



10° each circle

Q_2	= Minimum Indicated Flow Rate	.....	MCF/D
OF_3	= Theoretical Open Flow Potential with/Damage Removed Max.	.....	MCF/D
OF_4	= Theoretical Open Flow Potential with/Damage Removed Min.	.....	MCF/D
P_s	= Extrapolated Static Pressure	.....	Psig.
P_f	= Final Flow Pressure	.....	Psig.
P_{or}	= Potentiometric Surface (Fresh Water*)	.....	Feet
Q	= Average Adjusted Production Rate During Test	.....	bbls/day
Q_1	= 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	.....	—
μ	= Viscosity Gas or Liquid	.....	CP
Log	= Common Log		

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

FLUID SAMPLE DATA				Date	6-23-78	Ticket Number	318203
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job	OPEN HOLE	Halliburton District	HAYS
Recovery: Cu. Ft. Gas _____				Tester	MR. GARRISON	Witness	MR. ELSTER
cc. Oil _____				Drilling Contractor	H-30 DRILLING COMPANY		BC S
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud _____				Formation Tested	Mississippi		
Tot. Liquid cc. _____				Elevation	2322'	GL	Ft.
Gravity _____ ° API @ _____ °F.				Net Productive Interval	Ft.		
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From	Kelly Bushing		
RESISTIVITY _____ CHLORIDE CONTENT _____				Total Depth	4396'		
Recovery Water _____ @ _____ °F. _____ ppm				Main Hole/Casing Size	7 7/8"		
Recovery Mud _____ @ _____ °F. _____ ppm				Drill Pipe Length	4225'	I.D.	3.826"
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm				Packer Depth(s)	4366' - 4372' Ft.		
Mud Pit Sample _____ @ _____ °F. _____ ppm				Depth Tester Valve	4362' Ft.		
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm							
Mud Weight 9.8 vis 51 sec							
Cushion		TYPE AMOUNT		Depth Back Pres. Valve	Surface Choke	Bottom Choke	
				Ft.	1/4"	3/4"	
Recovered	10	Feet of	Oil cut mud				
Recovered	50	Feet of	Drilling mud				
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks				SEE PRODUCTION TEST DATA SHEET.			
TEMPERATURE		Gauge No. 6765	Gauge No. 6764	Gauge No.	TIME		
Depth:		4378' Ft.	4392' Ft.	Depth:	Ft.		
Est. °F.		12 Hour Clock	12 Hour Clock	Hour Clock		Tool A.M.	
Actual 123 °F.		Blanked Off NO	Blanked Off YES	Blanked Off		Opened 2300 P.M.	
		Pressures		Pressures		Bypass 0300 P.M.	
		Field	Office	Field	Office	Field	Office
Initial Hydrostatic			2288	2406	2301	Reported	Computed
Flow Initial			20	21	28	Minutes	Minutes
Flow Final			30	42	39		
Closed in			1014	1033	1024	60	60
Flow Initial			35	42	44		
Flow Final			45	53	51	60	60
Closed in			828	836	839	60	61
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic			2243	2395	2254		

Legal Location Sec. - Twp. - Rng. 18 - 19 - 24W
 Lease Name DINGES
 Well No. A-1
 Test No. 3
 Tested Interval 4372' - 4396'
 County NESS
 State KANSAS
 Lease Owner/Company Name PAN WESTERN PETROLEUM, INCORPORATED

FORMATION TEST DATA



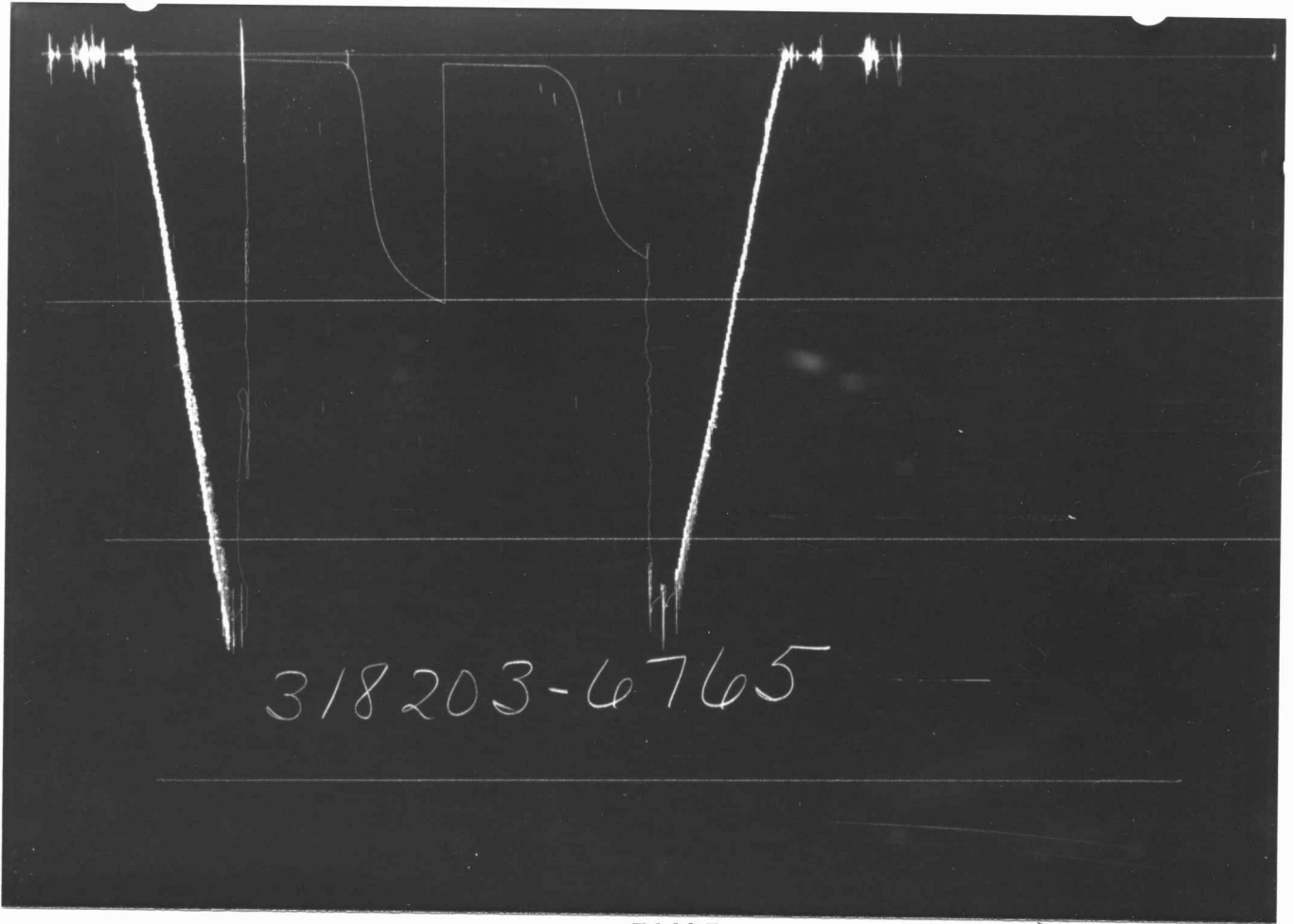
Gauge No.		6765		Depth		4378'		Clock No.		17421		12 hour		Ticket No.		318203	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0	.0000	20		.0000	30	.0000		.0000	45								
1	.0665	21		.0268	48*	.0675		.0460	66**								
2	.1330	23		.0603	125	.1350		.0855	99								
3	.1995	25		.0937	441	.2025		.1249	180								
4	.2660	27		.1272	684	.2700		.1643	374								
5	.3325	29		.1607	792	.3375		.2038	567								
6	.3990	30		.1942	857	.4050		.2432	669								
7				.2276	899			.2827	730								
8				.2611	935			.3221	772								
9				.2946	959			.3616	805								
10				.3281	981			.4010	828								
11				.3615	998												
12				.3950	1014												
13																	
14																	
15																	
Gauge No.		6764		Depth		4392'		Clock No.		11647		12 hour					
0	.0000	28		.0000	39	.0000		.0000	51								
1	.0670	29		.0270	57*	.0672		.0472	69**								
2	.1340	30		.0607	135	.1343		.0876	102								
3	.2010	32		.0944	457	.2015		.1280	172								
4	.2680	35		.1282	696	.2687		.1684	358								
5	.3350	37		.1619	798	.3358		.2089	561								
6	.4020	39		.1956	864	.4030		.2493	674								
7				.2294	909			.2897	738								
8				.2631	943			.3301	782								
9				.2968	970			.3706	814								
10				.3305	991			.4110	839								
11				.3643	1009												
12				.3980	1024												
13																	
14																	
15																	
Reading Interval		10		5		10		6		Minutes							
REMARKS: *Interval = 4 minutes **Interval = 7 minutes																	

SPECIAL PRESSURE DATA

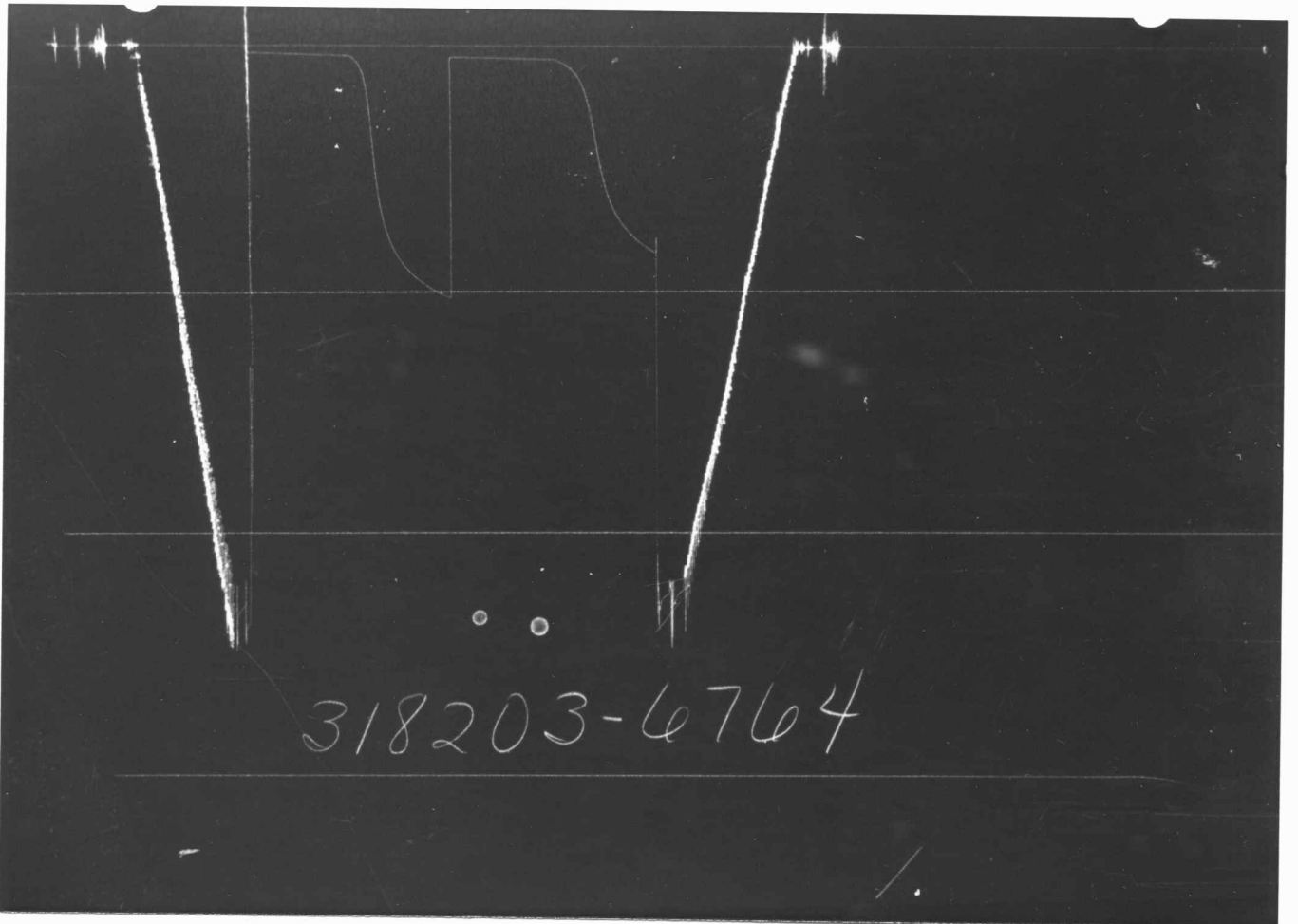
57



	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	6"	3"	1'	
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	4225'	
Drill Collars	4.5"	2.764"	126'	WEIGHT PIPE
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6.05'	4356'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4362'
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4366'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	4372'
Flush Joint Anchor	5"	3.84"	12'	
Pressure Equalizing Tube				
AP				
Blanked-Off B.T. Running Case	5"	3.75"	4'	4378'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Temp. Case	5"	3.75"	2'	4391'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4392'
Total Depth				4396'



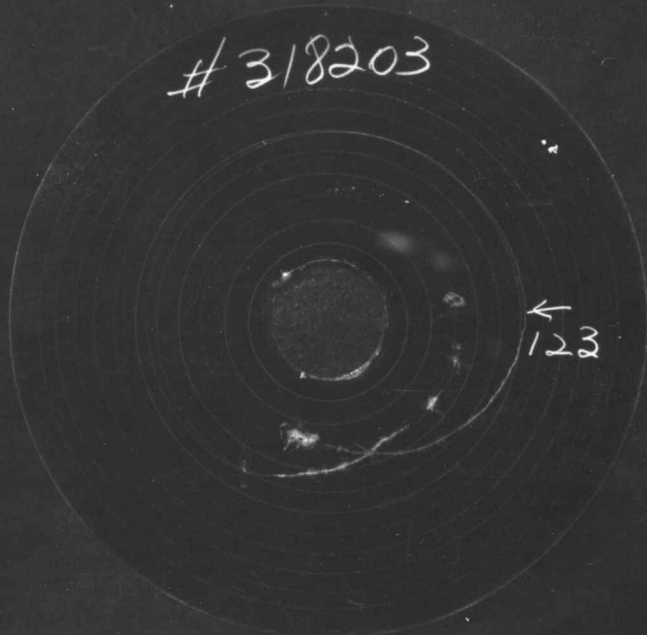
318203-6765



318203-6764

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

TEMPERATURE RECORDER CHART



10° each circle

- OF_4 = Theoretical Open Flow Potential with/Damage Removed Min. . . . MCF/D
- P_s = Extrapolated Static Pressure Psig.
- P_f = Final Flow Pressure Psig.
- P_{or} = Potentiometric Surface (Fresh Water *) Feet
- Q = Average Adjusted Production Rate During Test bbls/day
- Q_1 = 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 —
- μ = Viscosity Gas or Liquid CP
- Log** = Common Log

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