FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity _____ ° API @ _____ °F.
Gas/Oil Ratio _____ cu. ft./bbl.

		RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@ °F.			ppm
Recovery Mud	@ °F.			ppm
Recovery Mud Filtrate	@ °F.			ppm
Mud Pit Sample	@ °F.			ppm
Mud Pit Sample Filtrate	@ °F.			ppm

Mud Weight 9.3 vis 48 sec

Date 1-8-78 Ticket Number 296728
Kind of Job OPEN HOLE TEST Halliburton District HAYS
Tester C.P. HAMMONDS Witness G. MUELLER
Drilling Contractor SLAWSON DRILLING COMPANY RIG #2

EQUIPMENT & HOLE DATA

Formation Tested Kansas City
Elevation 2816' K.B. Ft.
Net Productive Interval _____ Ft.
All Depths Measured From Kelly Bushing
Total Depth 4100' Ft.
Main Hole/Casing Size 7 7/8" Hole
Drill Collar Length 283' WP I.D. 2.764" WP
Drill Pipe Length 3770' I.D. 3.826"
Packer Depth(s) 4077' Ft.
Depth Tester Valve 4064' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve
Surface Choke 1/4" Bottom Choke 3/4"

Recovered 5 Feet of drilling mud - no show of oil.
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of
Remarks

Meas. From Tester Valve

SEE PRODUCTION TEST DATA SHEET.....

TEMPERATURE	Gauge No. 684		Gauge No. 528		Gauge No.		TIME	
	Depth: 4079 Ft.		Depth: 4096 Ft.		Depth: Ft.			
	12 Hour Clock		12 Hour Clock		Hour Clock		Tool Opened 1450	A.M. P.M.
Est. °F.	Blanked Off no		Blanked Off yes		Blanked Off			
4095' @ Actual 116 °F.	Pressures		Pressures		Pressures		Opened Bypass 1650	A.M. P.M.
	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		1939	1967	1947				
First Period Flow Initial		13	25	21			___	___
First Period Flow Final		15	25	22			30	31
First Period Closed in		782	791	792			30	29
Second Period Flow Initial		19	25	26			___	___
Second Period Flow Final		18	25	22			30	30
Second Period Closed in		629	637	636			30	30
Third Period Flow Initial							___	___
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic		1934	1932	1944			___	___

Legal Location Sec. - Twp. - Rng. 14 - 19 - 29
Lease Name PARIS "A"
Well No. 1
Test No. 1
Tested Interval 4077' - 4100'
Field Area
County LANE
State KANSAS
Lease Owner/Company Name DONALD C. SLAWSON

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

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Casing perfs._____ Bottom choke_____ Surf. temp_____ °F Ticket No. 296728

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
1130					Called out.
1245					On location. Rig pulled drill pipe.
1305					Rig out with drill pipe.
1315					Picked up and made up tools.
1338					Started tool.
1447					Tool on bottom.
1450					Opened tool with a very weak blow -
					died in 25 minutes.
1520					Closed tool.
1550					Reopened tool with no blow throughout
					opening.
1620					Closed tool.
1650					Tool off bottom.
1750					Tool back through table.
1755					Break tool down and left it on the
					cat walk.
1815					Read charts.
1830					Job completed.

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No. 684			Depth 4079'			Clock No. 17417			12 hour	Ticket No. 296728				
	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"	$\text{Log}\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log}\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log}\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	13	.000		15	.000	19	.000		18					
1	.205	15	.0132*		23	.207	18	.0194		33					
2			.0331		61			.0388		69					
3			.0530		163			.0582		139					
4			.0728		293			.0776		227					
5			.0927		417			.0970		311					
6			.1125		520			.1164		395					
7			.1324		597			.1358		467					
8			.1523		674			.1552		532					
9			.1721		738			.1746		585					
10			.1920		782			.1940		629					
11															
12															
13															
14															
15															

Gauge No. 528					Depth 4096'			Clock No. 17416		12 hour					
0	.000	21	.000		22	.000	26	.000		22					
1	.207	22	.0135*		29	.203	22	.0204		35					
2			.0338		66			.0408		63					
3			.0541		167			.0612		122					
4			.0744		299			.0816		211					
5			.0946		422			.1020		301					
6			.1149		521			.1224		388					
7			.1352		598			.1428		465					
8			.1555		672			.1632		532					
9			.1758		741			.1836		589					
10			.1960		792			.2040		636					
11															
12															
13															
14															
15															
Reading Interval			3					3							Minutes

REMARKS: * = 2 minute interval.

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SPECIAL PRESSURE DATA

TICKET NO. 296728

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1.00'	4053'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3770'	
Drill Collars ... Weight Pipe ...	4.5"	2.764"	283'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	6.00'	4058'
Dual CIP Sampler				
Hydro-Spring Tester	5.00"	.75"	5.00'	4064'
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar	5.00"	1.75"	5.00'	
VR Safety Joint	5.0"	1.00"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4077'
Distributor				
Packer Assembly				
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~~ AP Running Case	5.00"	3.06"	4.00'	4079'
Flush Joint Anchor	5.0"	3.84"	12.00'	
Temp. Case	5.0"	3.00"	1.50'	4095'
Blanked-Off B.T. Running Case	5.0"	2.75"	4.00'	4096'
Total Depth				4100'

FORM 187-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

LITTLE'S 96676 75C

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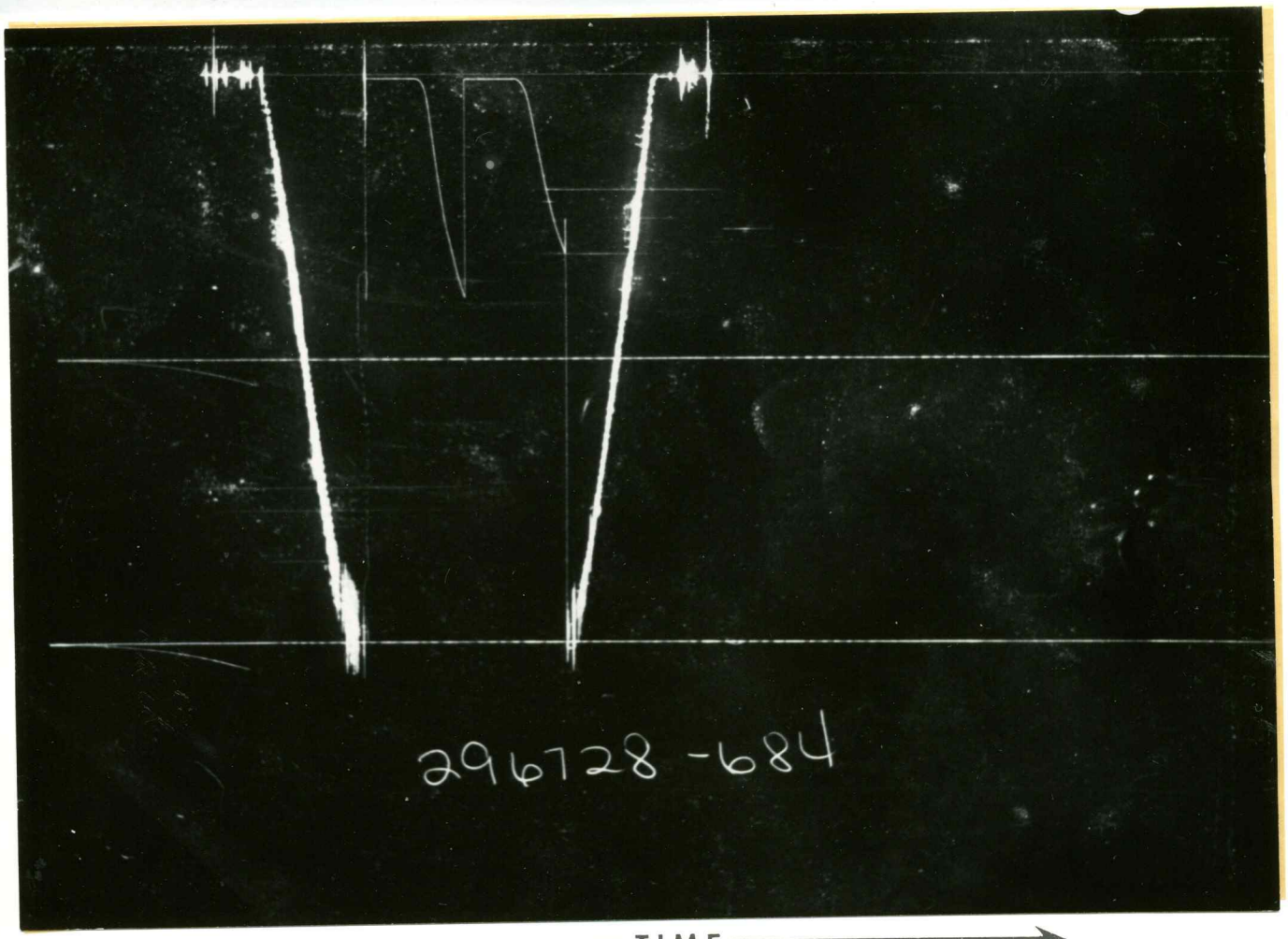
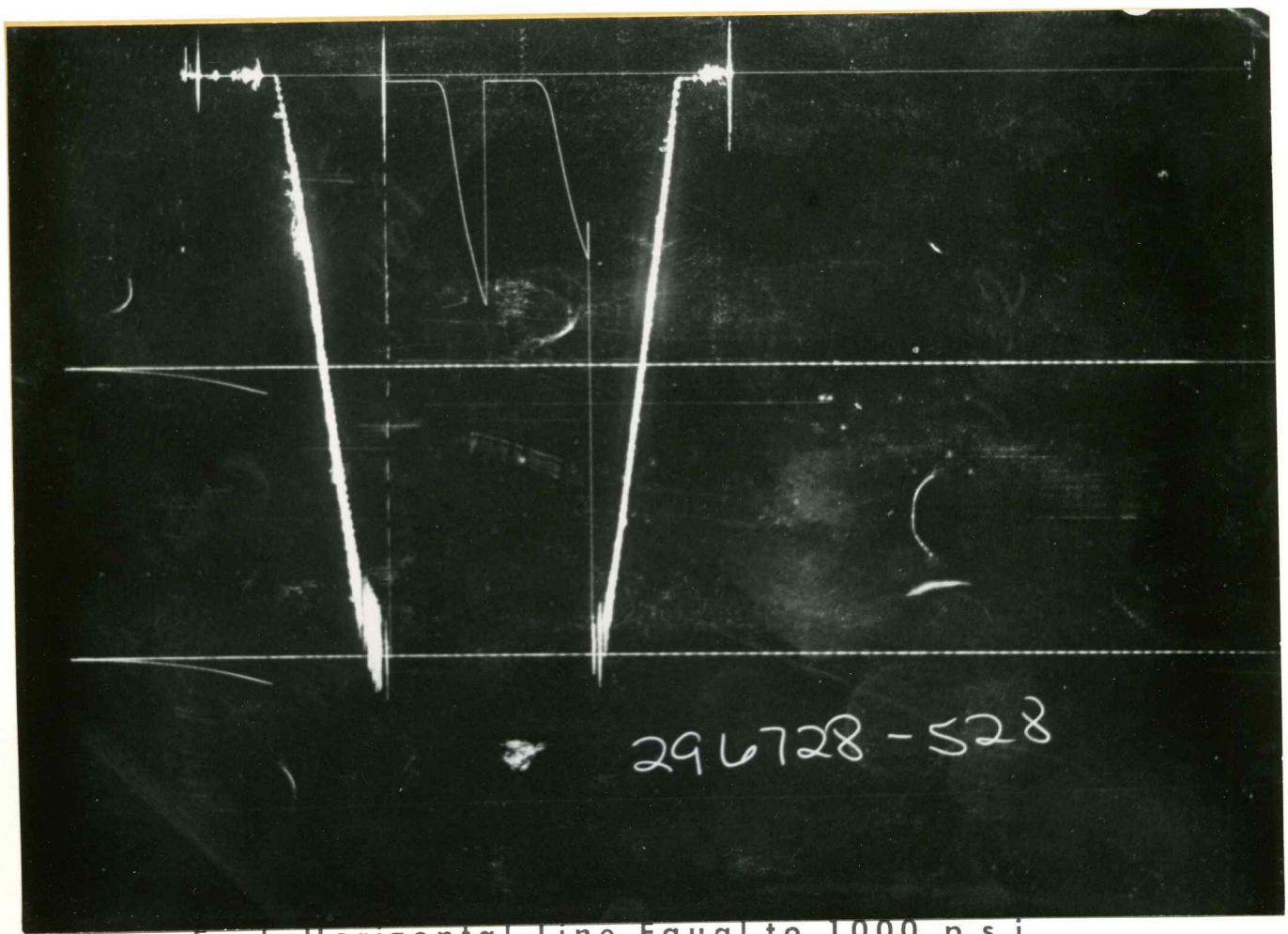
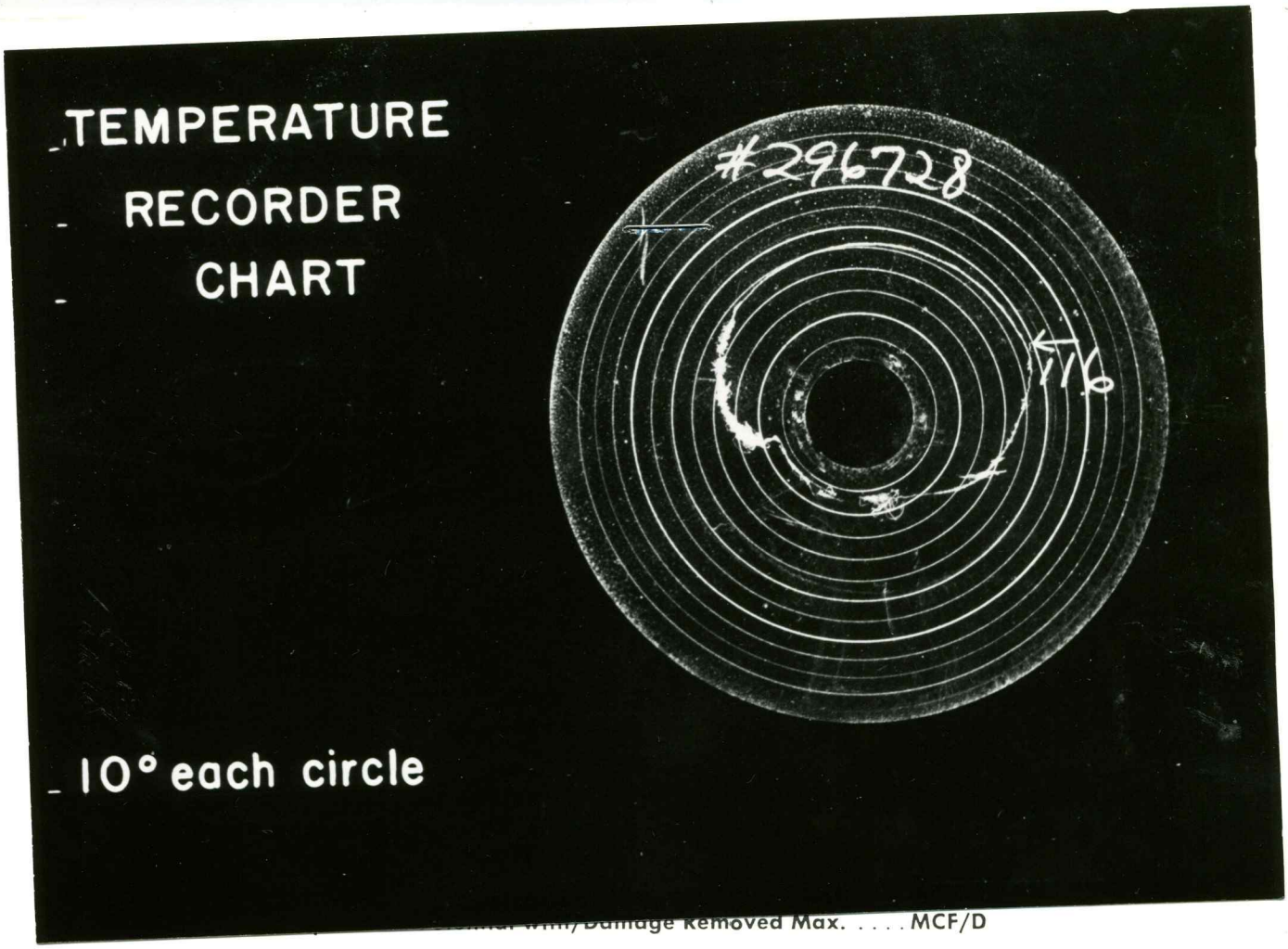


PRESSURE

TIME



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



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_{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.

FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity _____ ° API @ _____ °F.
Gas/Oil Ratio _____ cu. ft./bbl.

		RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@ °F.			ppm
Recovery Mud	@ °F.			ppm
Recovery Mud Filtrate	@ °F.			ppm
Mud Pit Sample	@ °F.			ppm
Mud Pit Sample Filtrate	@ °F.			ppm

Mud Weight 9.2 vis 40 sec

Date 1-9-78 Ticket Number 296729
Kind of Job OPEN HOLE Halliburton District HAYS
Tester HAMMONDS Witness MUELLER
Drilling Contractor SLAWSON DRILLING COMPANY RIG # 2

EQUIPMENT & HOLE DATA

Formation Tested Kansas City
Elevation 2816' K.B. Ft.
Net Productive Interval - Ft.
All Depths Measured From Kelly Bushing
Total Depth 4210' Ft.
Main Hole/Casing Size 7 7/8"
~~DC~~ Length WP 283' I.D. 2.764" WP
Drill Pipe Length 3866' I.D. 3.826"
Packer Depth(s) 4178' Ft.
Depth Tester Valve 4161' Ft.

Cushion TYPE NONE AMOUNT Ft. Depth Back Pres. Valve NONE Surface Choke 1/4" Bottom Choke 3/4"

Recovered 90' Feet of clean oil
Recovered 345' Feet of slightly oil cut muddy salt water
Recovered 441' Feet of slightly oil cut salt water
Recovered 504' Feet of salt water
Recovered Feet of
Remarks SEE PRODUCTION TEST DATA SHEET...

TEMPERATURE	Gauge No. 684	Gauge No. 528	Gauge No.	TIME
	Depth: 4180' Ft.	Depth: 4206' Ft.	Depth: Ft.	
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 0910 A.M. P.M.
Est. °F.	Blanked Off NO	Blanked Off YES	Blanked Off	
4205' @ Actual 133 °F.	Pressures	Pressures	Pressures	Opened Bypass 1210 A.M. P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		-	2022	2036	2031				
First Period	Flow Initial	-	33	34	38			___	___
	Flow Final	-	322	319	325			30	31
	Closed in	-	1220	1222	1228			45	45
Second Period	Flow Initial	-	327	327	331			___	___
	Flow Final	-	611	611	618			45	44
	Closed in	-	1221	1222	1228			60	60
Third Period	Flow Initial							___	___
	Flow Final								
	Closed in								
Final Hydrostatic		-	1996	2001	2002			___	___

Legal Location Sec. - Twp. - Rng. 14 - 19 - 29
Lease Name PARIS "A" Well No. 1 Test No. 2
Field Area -
Meas. From Tester Valve
Tested Interval 4178' - 4210'
County LANE State KANSAS
Lease Owner/Company Name DONALD C. SLAWSON

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

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Casing perfs._____ Bottom choke._____ Surf. temp._____ °F Ticket No. 296729

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
					Called out @ 0430 - ready now.
					On location @ 0530 - rig pulling drill
					pipe. Rig out with drill pipe @ 0700.
					Picked up and made up the tools @ 0715.
					Started tool through the table @ 0730.
					Rig started drill pipe @ 0740.
					Tool on bottom @ 0907.
0910					Hydrospring opened with a strong blow
					in 5 minutes - and throughout opening.
0940					Closed tool.
1025					Opened tool with a strong blow which
					continued throughout the opening.
1110					Closed tool.
1210					Tool off bottom.
1430					Tool back through the table.
1435					Broke tool down and left tool on the
					catwalk.
1500					Read charts.
1515					Job complete...

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

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Gauge No.	684	Depth	4180'	Clock No.	17417	12 hour	Ticket No.	296729	

	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 $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	33	.000		322	.000	327	.000		611					
1	.0410	94*	.0198		1189	.0536	382**	.0264		1199					
2	.0752	156	.0396		1200	.1140	444	.0528		1207					
3	.1094	199	.0594		1206	.1743	503	.0792		1212					
4	.1436	243	.0792		1210	.2347	559	.1056		1214					
5	.1778	281	.0990		1212	.2950	611	.1320		1215					
6	.2120	322	.1188		1214			.1584		1217					
7			.1386		1216			.1848		1218					
8			.1584		1218			.2112		1219					
9			.1782		1218			.2376		1220					
10			.1980		1219			.2640		1220					
11			.2178		1219			.2904		1220					
12			.2376		1219			.3168		1220					
13			.2574		1220			.3432		1221					
14			.2772		1220			.3696		1221					
15			.2970		1220			.3960		1221					

Gauge No.	528	Depth	4206'	Clock No.	17416	hour	12		

0	.000	38	.000		325	.000	331	.000		618					
1	.0405	105*	.0202		1195	.0542	389**	.0268		1204					
2	.0742	166	.0404		1208	.1151	451	.0536		1212					
3	.1079	208	.0606		1213	.1761	509	.0804		1216					
4	.1416	247	.0808		1217	.2370	566	.1072		1219					
5	.1753	287	.1010		1220	.2980	618	.1340		1222					
6	.2090	325	.1212		1222			.1608		1222					
7			.1414		1222			.1876		1223					
8			.1616		1224			.2144		1225					
9			.1818		1225			.2412		1226					
10			.2020		1226			.2680		1226					
11			.2222		1227			.2948		1227					
12			.2424		1228			.3216		1228					
13			.2626		1228			.3484		1228					
14			.2828		1228			.3752		1228					
15			.3030		1228			.4020		1228					
Reading Interval	5		3			9		4							Minutes

REMARKS: * INTERVAL = 6 MINUTES. ** INTERVAL = 8 MINUTES.

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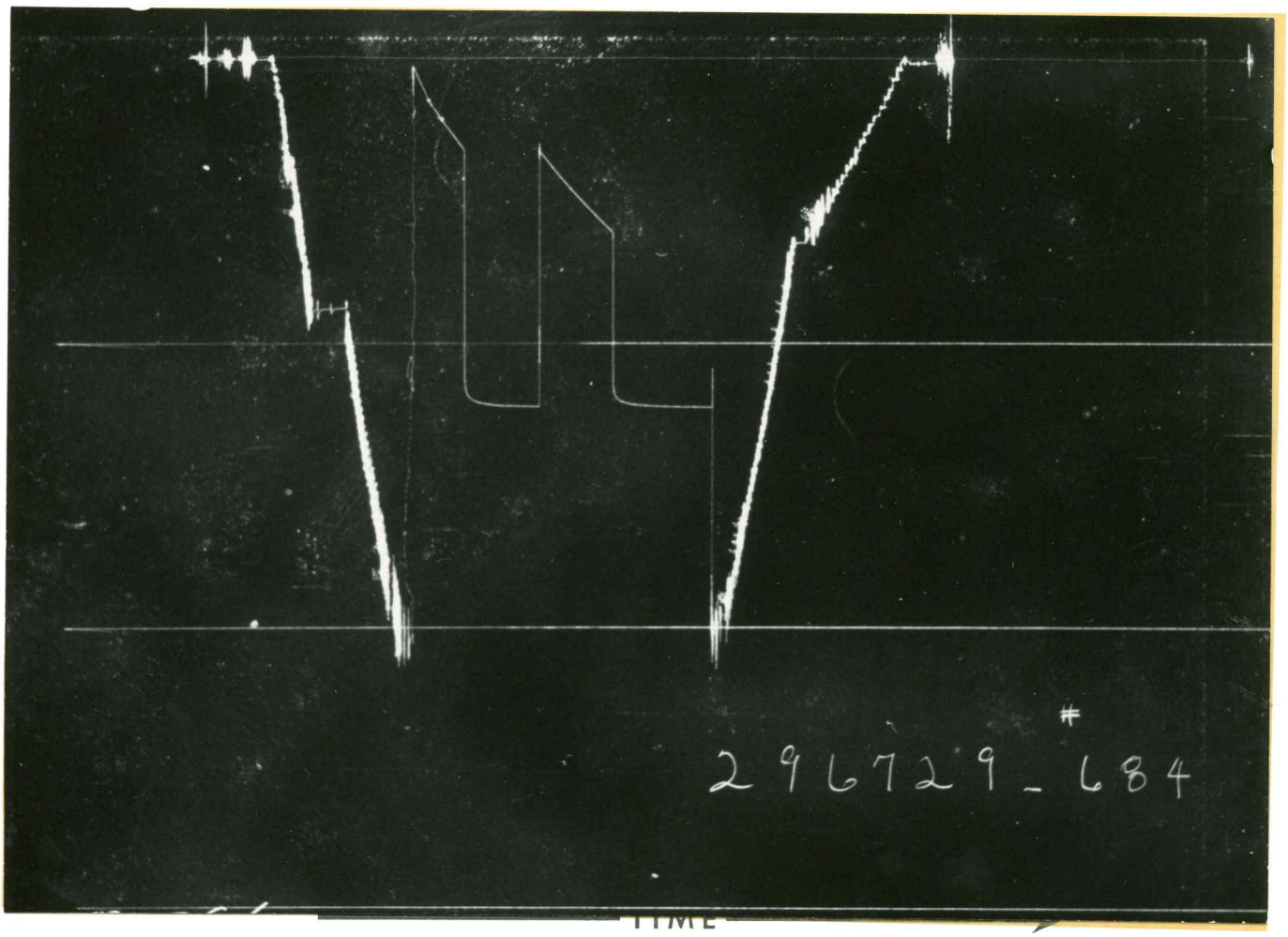
SPECIAL PRESSURE DATA

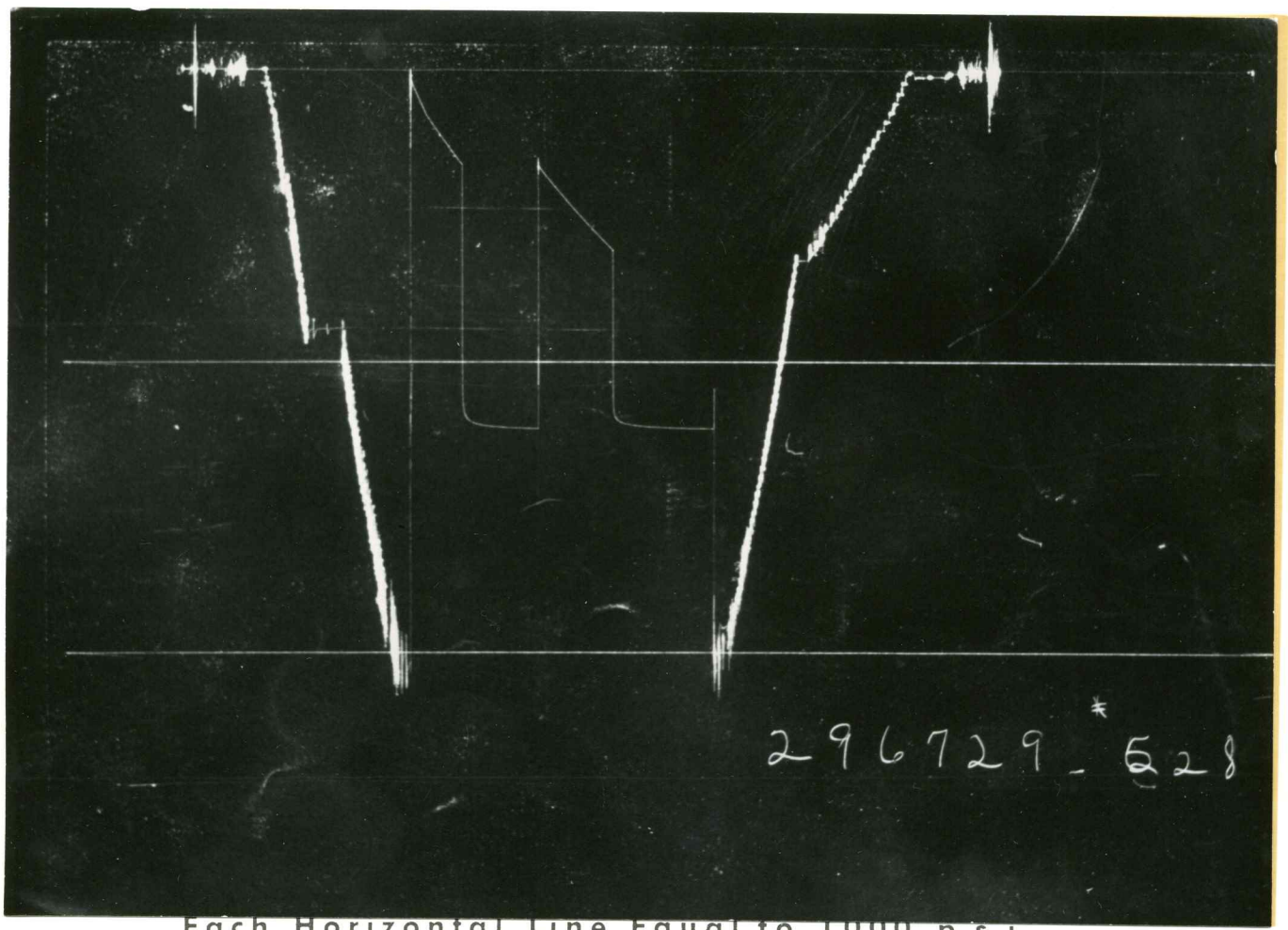
TICKET NO. 296729

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1.00'	4154'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3866'	
Drill Collars ********** WEIGHT PIPE *****	4.5"	2.764"	283'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.00"	.87"	6.00'	4159'
Dual CIP Sampler				
Hydro-Spring Tester	5.00"	.75"	5.00'	4161'
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar	5.00"	1.75"	5.00'	
VR Safety Joint	5.00"	1.00"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4178'
Distributor				
Packer Assembly				
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 ********** AP RUNNING CASE **	5.00"	3.06"	4.00'	4180'
Flush Joint Anchor	5.00"	3.84"	21.00'	
TEMP. CASE	5.00"	3.00"	1.50'	4205'
Blanked-Off B.T. Running Case	5.00"	2.75"	4.00'	4206'
Total Depth				4210'

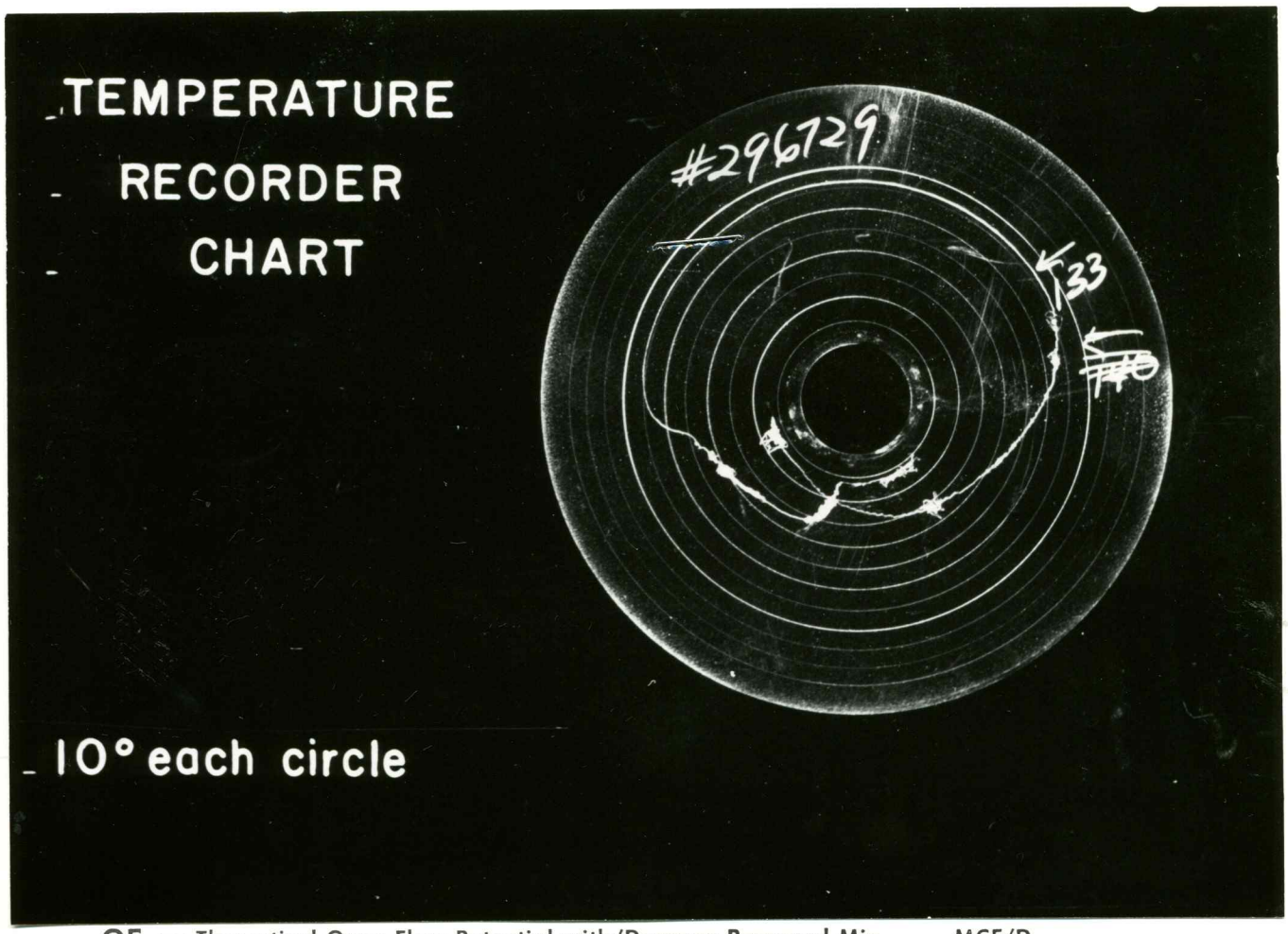
EQUIPMENT DATA



PRESSURE



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



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_{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.

FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface

Recovery: Cu. Ft. Gas _____

cc. Oil _____

cc. Water _____

cc. Mud _____

Tot. Liquid cc. _____

Gravity Corr 37 ° API @ 60 °F.

Gas/Oil Ratio _____ cu. ft./bbl.

		RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@	°F.		ppm
Recovery Mud	@	°F.		ppm
Recovery Mud Filtrate	@	°F.		ppm
Mud Pit Sample	@	°F.		ppm
Mud Pit Sample Filtrate	@	°F.		ppm

Mud Weight 9.4 vis 48 sec

Date 1-10-78 Ticket Number 296730

Kind of Job OPEN HOLE Halliburton District HAYS

Tester MR. HAMMONDS Witness MR. MUELLER

Drilling Contractor SLAWSON DRILLING COMPANY RIG # 2 sm

EQUIPMENT & HOLE DATA

Formation Tested Lower Kansas City

Elevation 2816' Kelly bushing Ft.

Net Productive Interval - Ft.

All Depths Measured From Kelly bushing

Total Depth 4245' Ft.

Main Hole/Casing Size 7 7/8"

Drill Collar Length 283' I.D. 2.764" FW

Drill Pipe Length 3919' I.D. 3.826"

Packer Depth(s) 4226' Ft.

Depth Tester Valve 4213' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve

Surface Choke 1/4" Bottom Choke 3/4"

Recovered 220 Feet of gas in pipe

Recovered 1606 Feet of clean gassy oil

Recovered 126 Feet of slightly oil cut mud

Recovered Feet of Bottom joint grind out, 5% oil, 20% water, 75% mud

Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET

NOTE: Unable to scribe 3000# line on BT 528.

TEMPERATURE	Gauge No. 684		Gauge No. 528		Gauge No.		TIME
	Depth: 4228 Ft.		Depth: 4241 Ft.		Depth: Ft.		
	12 Hour Clock		12 Hour Clock		Hour Clock		Tool Opened 0105 A.M. P.M.
Est. °F. 4240	Blanked Off no		Blanked Off yes		Blanked Off		Opened A.M.
Actual 126 °F.	Pressures		Pressures		Pressures		Bypass 0405 P.M.
	Field	Office	Field	Office	Field	Office	Reported Minutes / Computed Minutes
Initial Hydrostatic		2025	2054	2028			
First Period Flow Initial		89	86	89			— / —
First Period Flow Final		414	413	410			30 / 30
First Period Closed in		1033	1032	1031			45 / 45
Second Period Flow Initial		433	431	434			— / —
Second Period Flow Final		663	654	662			45 / 45
Second Period Closed in		1014	1014	1011			60 / 60
Third Period Flow Initial							— / —
Third Period Flow Final							
Third Period Closed in							
Final Hydrostatic		2025	2045	2026			— / —

Legal Location Sec. - Twp. - Rng. 14 19 29

Lease Name PARIS "A"

Well No. 1

Test No. 3

Tested Interval 4226 - 4245'

Lease Owner/Company Name DONALD C. SLAWSON

Field Area

County LANE

State KANSAS

Mea. From Tester Valve

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No. 296730

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
2130					Called out, ready now
2245					On location, rig pulled drill pipe
2300					Rig out with drill pipe
2315					Picked up and made up tools.
2330					Set tool in table
2345					Rig started drill pipe
0102					Tool on bottom
0105					Opened tool with strong blow in 2 min.
0135					Closed tool
0220					Opened tool with a strong blow.
0305					Closed tool
0405					Tool off bottom
0500					Rig pulled to fluid which was oil
					Let set until daylight
0945					Tool back thru table
1000					Broke tool down and left the tool on
					the catwalk
1040					Read charts
1100					Job complete.

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No.	684	Depth	4228'	Clock No.	17417	12 hour	Ticket No.	296730	

	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 $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.0000	89	.0000		414	.0000	433	.0000		663					
1	.0330	165	.0331*		837	.0337*	469	.0264		847					
2	.0660	234	.0596		881	.0875	523	.0528		878					
3	.0990	290	.0861		916	.1414	567	.0792		900					
4	.1320	338	.1126		940	.1953	603	.1056		916					
5	.1650	379	.1391		960	.2492	632	.1320		930					
6	.1980	414	.1656		976	.3030	663	.1584		944					
7			.1921		990			.1848		954					
8			.2185		1003			.2112		965					
9			.2450		1015			.2376		973					
10			.2715		1025			.2640		982					
11			.2980		1033			.2904		989					
12								.3168		996					
13								.3432		1003					
14								.3696		1009					
15								.3960		1014					

Gauge No.	528		Depth	4241'		Clock No.	17416		12 hour					
0	.0000	89	.0000		410	.0000	434	.0000		662					
1	.0333	168	.0338*		833	.0338*	468	.0269		853					
2	.0667	234	.0608		882	.0878	524	.0537		876					
3	.1000	291	.0878		914	.1419	566	.0806		897					
4	.1333	336	.1148		938	.1959	603	.1075		914					
5	.1667	376	.1419		959	.2499	635	.1344		930					
6	.2000	410	.1689		975	.3040	662	.1612		942					
7			.1959		990			.1881		952					
8			.2229		1002			.2150		961					
9			.2499		1013			.2418		971					
10			.2770		1022			.2687		979					
11			.3040		1031			.2956		987					
12								.3224		994					
13								.3493		1001					
14								.3762		1006					
15								.4030		1011					
Reading Interval	5		4			8		4							Minutes

REMARKS: *First interval is equal to 5 minutes.

FORM 183-R1—PRINTED IN U.S.A.

SPECIAL PRESSURE DATA

LITTLE'S 96673 75C 8/74

TICKET NO. 296730

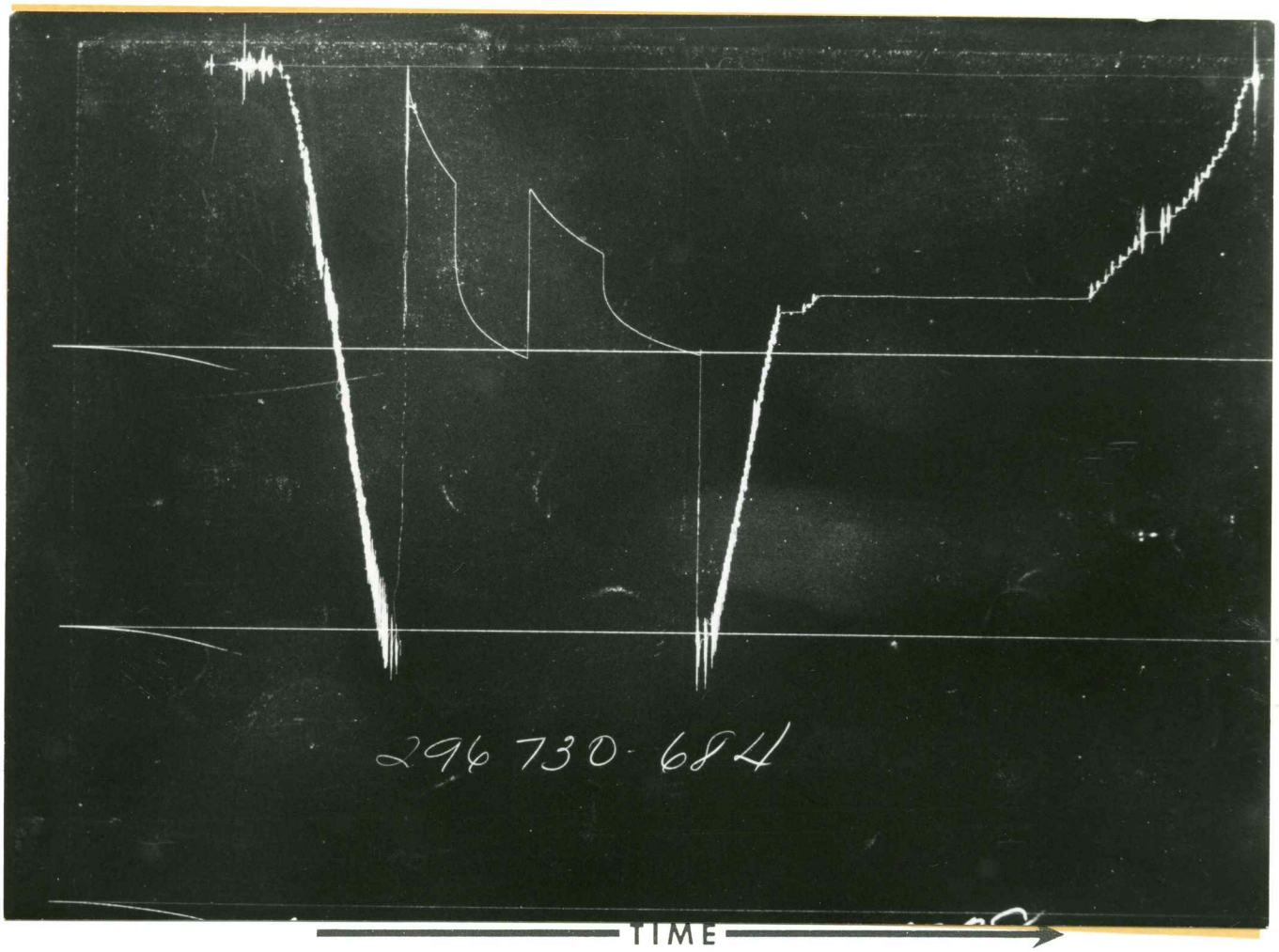
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1'	4202'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3919'	
Drill Collars	4.5"	2.764"	283' Flex wt.	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6'	4207'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4213'
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4226'
Distributor				
Packer Assembly				
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				
AP RUNNING CASE	5"	3.06"	4'	4228'
Drill Collars				
Flush Joint Anchor	5"	3.84"	8'	
TEMP. CASE	5"	3"	1.50'	4240'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4241'
Total Depth				4245'

FORM 187-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

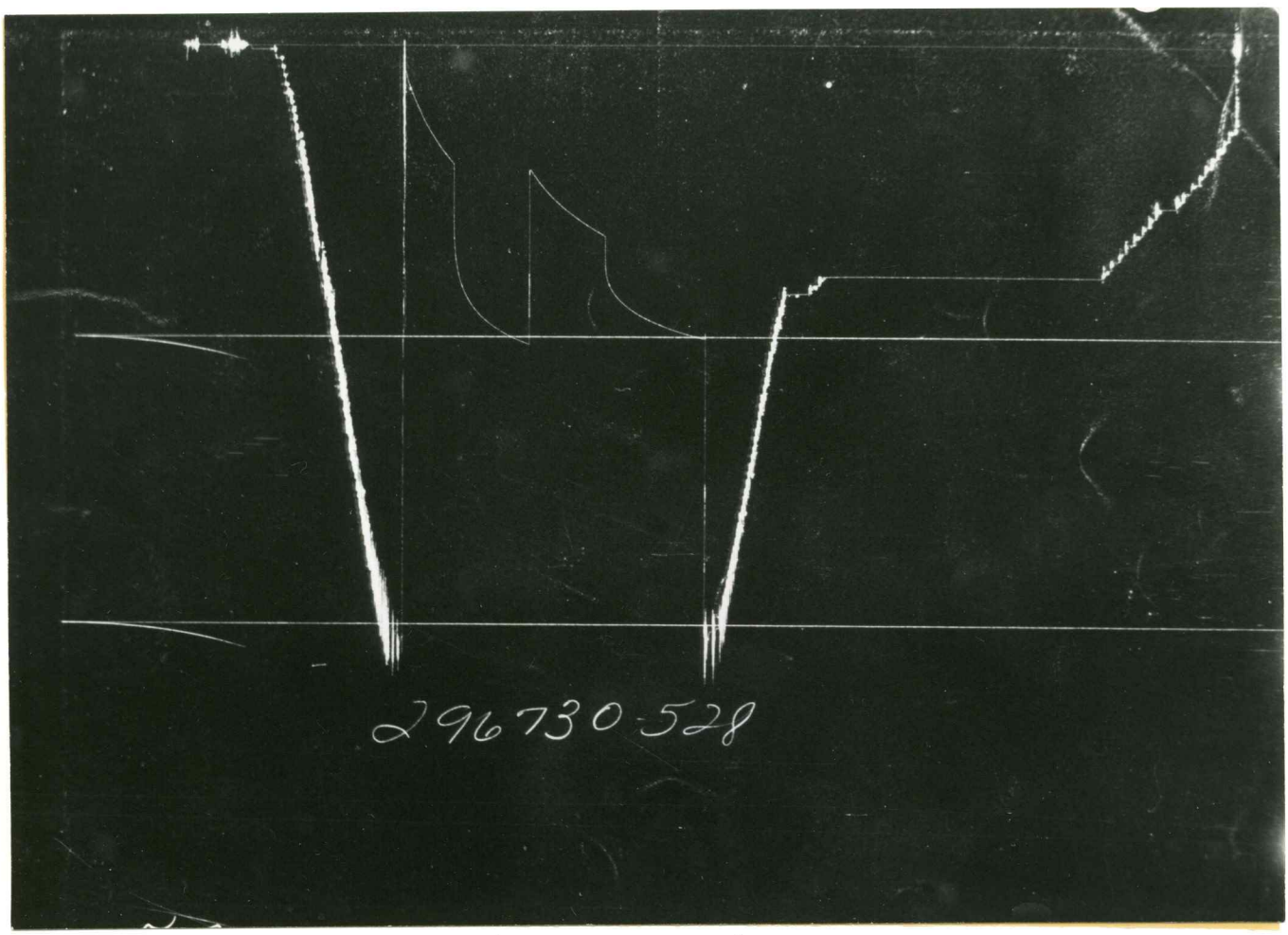
LITTLE'S 96676 75C 8/74

5

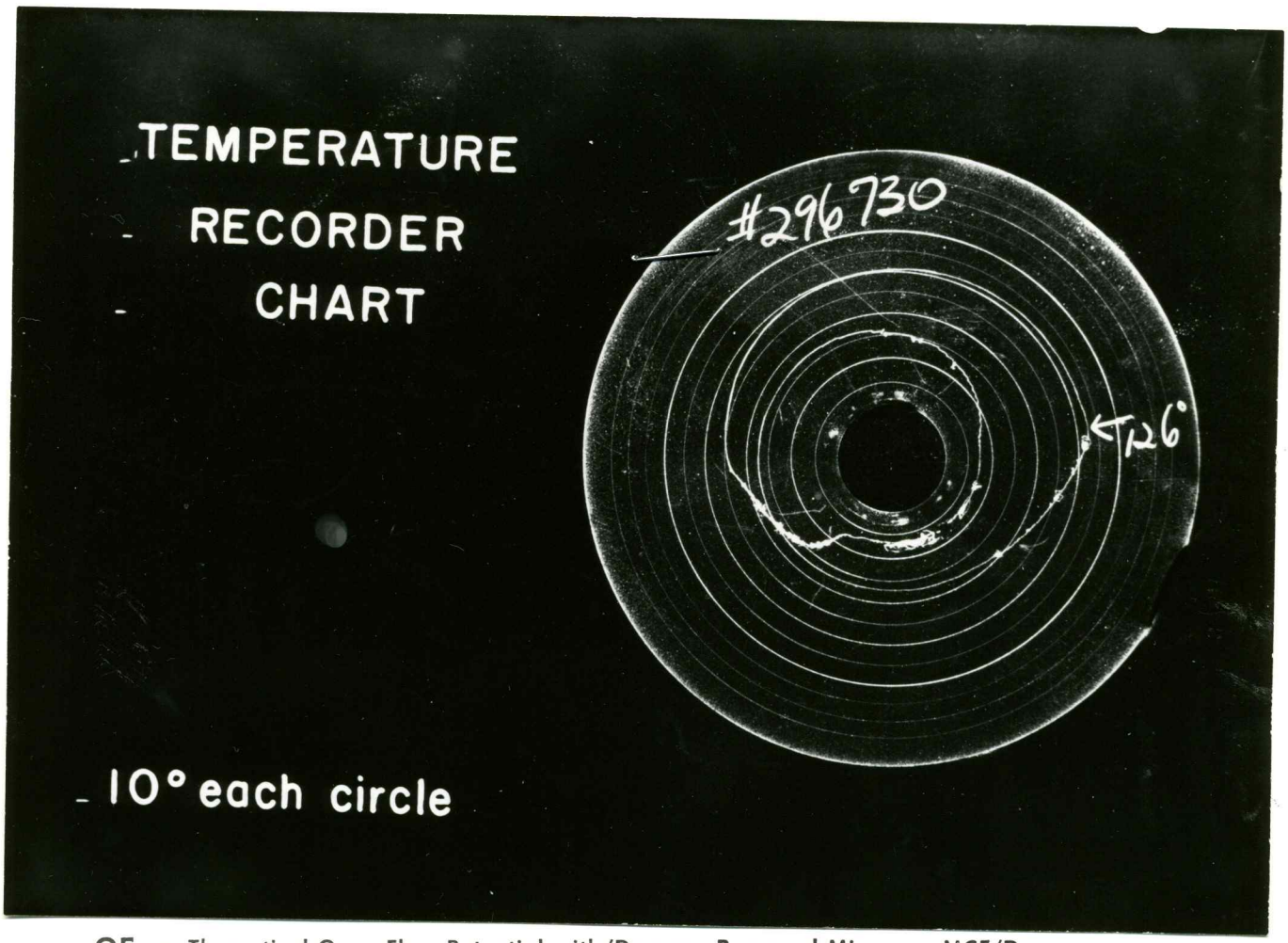


PRESSURE

TIME



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



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_{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.

FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface

Recovery: Cu. Ft. Gas _____

cc. Oil _____

cc. Water _____

cc. Mud _____

Tot. Liquid cc. _____

Gravity _____ ° API @ _____ °F.

Gas/Oil Ratio _____ cu. ft./bbl.

		RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@	°F.		ppm
Recovery Mud	@	°F.		ppm
Recovery Mud Filtrate	@	°F.		ppm
Mud Pit Sample	@	°F.		ppm
Mud Pit Sample Filtrate	@	°F.		ppm

Mud Weight 9.1 vis 45 sec

Date 1-10-78 Ticket Number 296731

Kind of Job OPEN HOLE Halliburton District HAYS

Tester C. P. HAMMONDS Witness GEORGE MUELLEN

Drilling Contractor SLAWSON DRILLING R#2 DR

EQUIPMENT & HOLE DATA

Formation Tested Lower Kansas City 180' Zone

Elevation 2816' KB Ft.

Net Productive Interval 5' Ft.

All Depths Measured From Kelly Bushing

Total Depth 4254' Ft.

Main Hole/Casing Size 7 7/8"

Drill Collar Length 283' I.D. 2.764"

Drill Pipe Length 3934' I.D. 3.826"

Packer Depth(s) 4244' Ft.

Depth Tester Valve 4223' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve

Surface Choke 1/4" Bottom Choke 3/4"

Recovered 440 Feet of salt water

Recovered Feet of

Recovered Feet of

Recovered Feet of

Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET

TEMPERATURE	Gauge No. 684 Depth: 4228 Ft.	Gauge No. 528 Depth: 4250 Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool A.M.
Est. °F.	Blanked Off No	Blanked Off Yes	Blanked Off	Opened 1930 P.M.
4249' Actual 133 °F.	Pressures	Pressures	Pressures	Opened 2230 A.M. Bypass P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			2012	2045	2019				
First Period	Flow Initial		17	25	24			____	____
	Flow Final		107	103	111			30	30
	Closed in		1235	1239	1239			45	45
Second Period	Flow Initial		112	120	120			____	____
	Flow Final		205	206	212			45	44
	Closed in		1223	1239	1234			60	60
Third Period	Flow Initial							____	____
	Flow Final								
	Closed in								
Final Hydrostatic			2008	2019	2016			____	____

Legal Location Sec. - Twp. - Rng. 14-19-29

Lease Name PARIS "A"

Well No. 1

Test No. 4

Tested Interval 4244-4254'

Lease Owner/Company Name DONALD C. SLAWSON

Field Area

Mea. From Tester Valve

County LANE

State KANSAS

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

5

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No. 296731

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
1530					Called out, ready now
1700					On location, rig pulling drill pipe
1735					Rig out with drill pipe
1745					Picked up and made up tool
1755					Set tool in table
1815					Rig started drill pipe
1927					Tool on bottom
1930					Opened tool with a weak to a good blow
					in 30 minutes
2000					Closed tool
2045					Opened tool with a good to a strong
					blow in 45 minutes.
2130					Closed tool
2230					Tool off bottom
0330					Rig pulled to fluid which was 440'
					saltwater.
0015					Tool back through table
0030					Broke tool down and left tool on catwalk
0100					Read charts
0125					Job completed

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

5

Gauge No.	684	Depth	4228'	Clock No.	17417	12 hour	Ticket No.	296731	

	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 $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	17	.000		107	.000	112	000		205					
1	.0338	30	.020		1180	.0606	133*	.0267		1179					
2	.0677	46	.040		1202	.1076	150	.0533		1198					
3	.1015	62	.060		1212	.1547	164	.0800		1209					
4	.1353	78	.080		1218	.2018	178	.1067		1215					
5	.1692	93	.100		1222	.2489	192	.1335		1218					
6	.2030	107	.120		1225	.2960	205	.1600		1219					
7			.140		1227			.1867		1220					
8			.160		1229			.2134		1221					
9			.180		1231			.2400		1222					
10			.200		1232			.2667		1223					
11			.220		1232			.2934		1223					
12			.240		1233			.3200		1223					
13			.260		1234			.3467		1223					
14			.280		1235			.3734		1223					
15			.300		1235			.4000		1223					

Gauge No.	528		Depth	4250'		Clock No.	17416	hour	12					
0	.000	24	.000		111	.000	120	.000		212					
1	.0342	35	.0203		1182	.0608	141*	.0271		1183					
2	.0683	52	.0407		1205	.1080	157	.0541		1203					
3	.1025	66	.0610		1215	.1553	171	.0812		1212					
4	.1367	81	.0813		1221	.2025	184	.1083		1218					
5	.1709	97	.1017		1225	.2498	198	.1354		1222					
6	.2050	111	.1220		1228	.2970	212	.1624		1225					
7			.1423		1231			.1895		1226					
8			.1626		1232			.2166		1227					
9			.1830		1233			.2436		1230					
10			.2033		1234			.2707		1231					
11			.2236		1236			.2978		1231					
12			.2440		1237			.3248		1231					
13			.2643		1237			.3519		1232					
14			.2846		1238			.3790		1233					
15			.3050		1239			.4060		1234					
Reading Interval	5		3			7		4							Minutes

REMARKS: *-9 minutes

FORM 183-R1—PRINTED IN U.S.A.

SPECIAL PRESSURE DATA

LITTLE'S 96673 75C 8/74

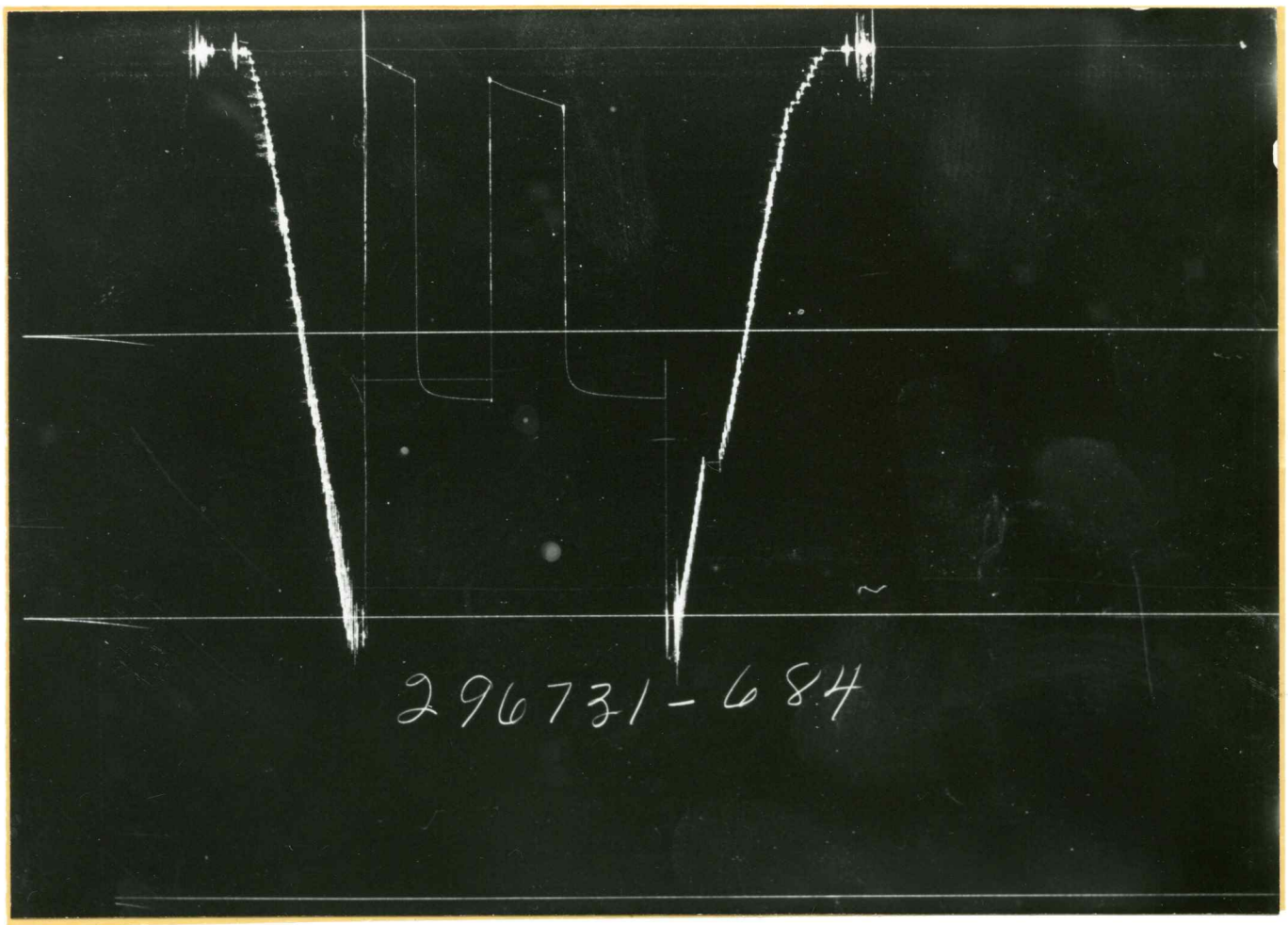
TICKET NO. 296731

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1.00'	4216'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3934'	
Drill Collars	4.5"	2.764"	283' Flex weight	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	6.00'	4221'
Dual CIP Sampler				
Hydro-Spring Tester	5.0"	.75"	5.00'	4223'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.0"	3.06"	4.00'	4228'
Hydraulic Jar	5.0"	1.75"	5.00'	
VR Safety Joint	5.0"	1.00"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4244'
Distributor				
Packer Assembly				
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"	2.00'	
	5.0"	3.00"	1.50'	4249'
Blanked-Off B.T. Running Case	5.00"	2.75"	4.00'	4250'
Total Depth				4254'

FORM 187-R1—PRINTED IN U.S.A.

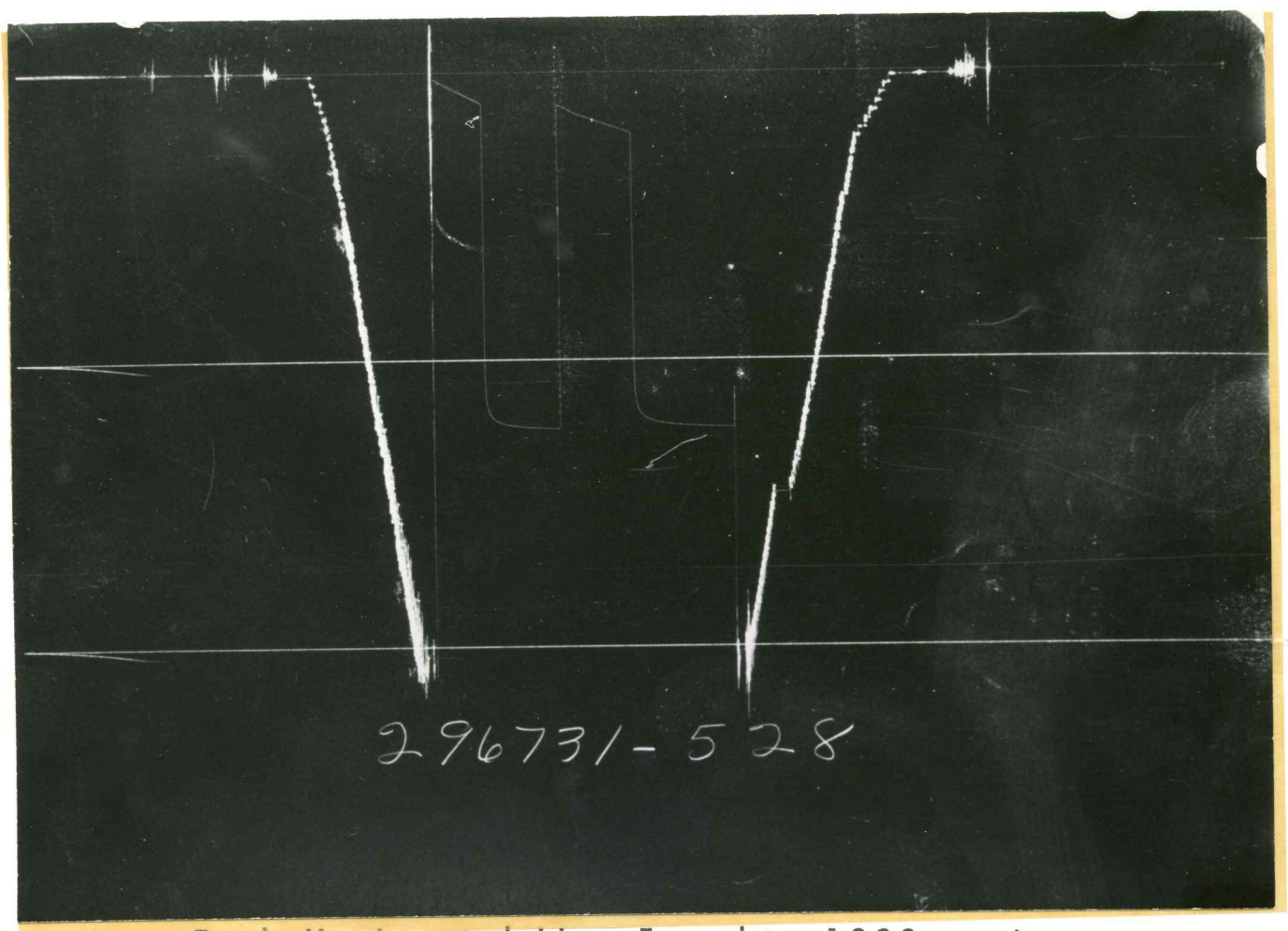
EQUIPMENT DATA

LITTLE'S 96676 75C 8/74

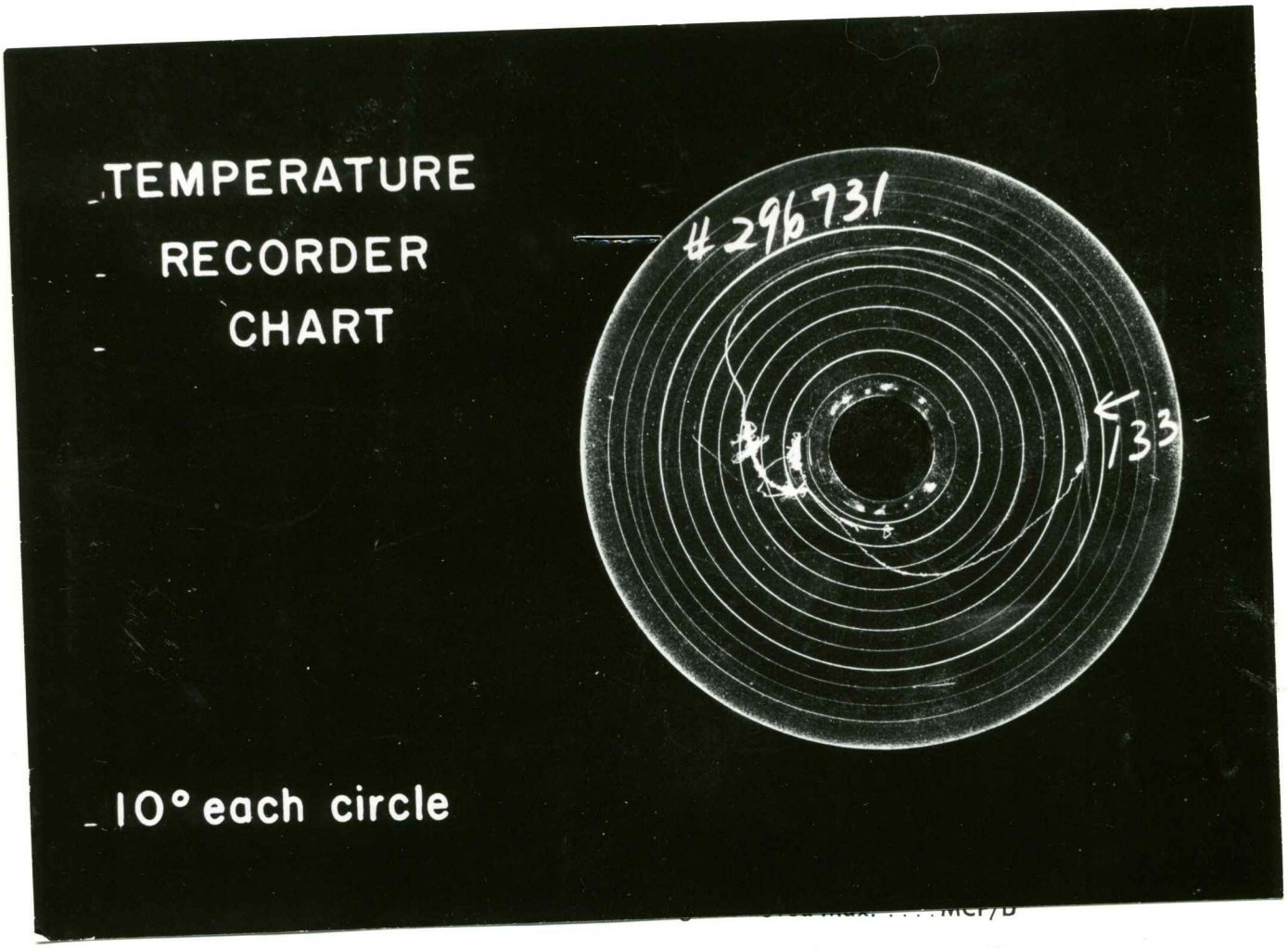


PRESSURE

TIME



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



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_{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.

FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity _____ ° API @ _____ °F.
Gas/Oil Ratio _____ cu. ft./bbl.

		RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@ °F.			ppm
Recovery Mud	@ °F.			ppm
Recovery Mud Filtrate	@ °F.			ppm
Mud Pit Sample	@ °F.			ppm
Mud Pit Sample Filtrate	@ °F.			ppm

Mud Weight 9.2 vis 48 sec

Date 1-11-78 Ticket Number 296732
Kind of Job OPEN HOLE Halliburton District HAYS
Tester MR. HAMMONDS Witness MR. MUELLER
Drilling Contractor SLAWSON DRILLING COMPANY RIG#2 BC S

EQUIPMENT & HOLE DATA

Formation Tested Lower Kansas City
Elevation 2816' KB Ft.
Net Productive Interval 5' Ft.
All Depths Measured From Kelly Bushing
Total Depth 4293' Ft.
Main Hole/Casing Size 7 7/8" Hole
Drill Collar Length 283' WP I.D. 2.764"
Drill Pipe Length 3970' I.D. 3.826"
Packer Depth(s) 4280' Ft.
Depth Tester Valve 4263' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve
Surface Choke 1/4" Bottom Choke 3/4"

Recovered 45 Feet of Slightly oil cut muddy water
Recovered 378 Feet of Salt water
Recovered Feet of
Recovered Feet of
Recovered Feet of

Meas. From Tester Valve

Remarks SEE PRODUCTION TEST DATA SHEET.

*Time given and recorded does not agree.

TEMPERATURE	Gauge No. 684	Gauge No. 528	Gauge No.	TIME
	Depth: 4264' Ft.	Depth: 4289' Ft.	Depth: Ft.	
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool A.M.
Est. °F.	Blanked Off No	Blanked Off Yes	Blanked Off	Opened 1215 P.M.
4288' Actual 132 °F.	Pressures	Pressures	Pressures	Opened A.M. Bypass 1515 P.M.

	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2031	2054	2042				
First Period Flow Initial		11	25	21			———	———
First Period Flow Final		91	86	99			30	31
First Period Closed in		1246	1256	1253			45	44
Second Period Flow Initial		95	130	104			———	———
Second Period Flow Final		198	206	209			45	55*
Second Period Closed in		1241	1256	1249			60	60
Third Period Flow Initial							———	———
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic		2032	2036	2040			———	———

Legal Location Sec. - Twp. - Rng. 14 - 19 - 29
Lease Name PARIS "A"
Well No. 1
Test No. 5
Tested Interval 4280' - 4293'
Lease Owner/Company Name DONALD C. SLAWSON
Field Area
County LANE
State KANSAS

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

5

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No. 296732

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
0830					Called out, ready now
1000					On location, rig pulled drill pipe
1045					Rig out with drill pipe
1050					Picked up and made up tool
1100					Set tool in table
1110					Rig started drill pipe
1212					Tool on bottom
1215					Tool opened with a weak to fair blow
1245					Closed tool
1330					Opened tool with a very weak blow
1415					Closed tool
1515					Tool off bottom
1645					Tool back through table
1650					Broke tool down and left on catwalk
1715					Read charts
1730					Job complete

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8-74

5

Gauge No. 684	Depth 4264'	Clock No. 17417	12 hour	Ticket No. 296732	

	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 $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.0000	11	.0000		91	.0000	95	.0000		198					
1	.0397	25*	.0130		1171**	.0471	107***	.0263		1193					
2	.0727	39	.0325		1211	.1009	128	.0527		1214					
3	.1058	53	.0520		1223	.1547	143	.0790		1221					
4	.1389	65	.0715		1229	.2085	156	.1053		1224					
5	.1719	77	.0910		1232	.2624	170	.1317		1227					
6	.2050	91	.1105		1236	.3162	185	.1580		1229					
7			.1300		1238	.3700	198	.1843		1232					
8			.1495		1239			.2107		1233					
9			.1690		1241			.2370		1235					
10			.1885		1242			.2633		1237					
11			.2080		1243			.2897		1238					
12			.2275		1244			.3160		1239					
13			.2470		1244			.3423		1240					
14			.2665		1245			.3687		1241					
15			.2860		1246			.3950		1241					

Gauge No. 528			Depth 4289'			Clock No. 17416		12 hour						
0	.0000	21	.0000		99	.0000	104	.0000		209					
1	.0403	34*	.0135		1147**	.0472	119***	.0269		1198					
2	.0738	47	.0336		1216	.1012	140	.0539		1223					
3	.1074	61	.0538		1231	.1551	155	.0808		1231					
4	.1409	74	.0740		1237	.2091	169	.1077		1235					
5	.1745	87	.0942		1242	.2631	183	.1347		1238					
6	.2080	99	.1144		1244	.3170	196	.1616		1240					
7			.1345		1246	.3710	209	.1885		1242					
8			.1547		1248			.2155		1244					
9			.1749		1249			.2424		1244					
10			.1951		1250			.2693		1245					
11			.2153		1250			.2963		1246					
12			.2355		1251			.3232		1247					
13			.2556		1252			.3501		1248					
14			.2758		1253			.3771		1249					
15			.2960		1253			.4040		1249					
Reading Interval	5		3			8		4							Minutes

REMARKS: *Interval = 6 minutes **Interval = 2 minutes ***Interval = 7 minutes

5

SPECIAL PRESSURE DATA

TICKET NO. 296732

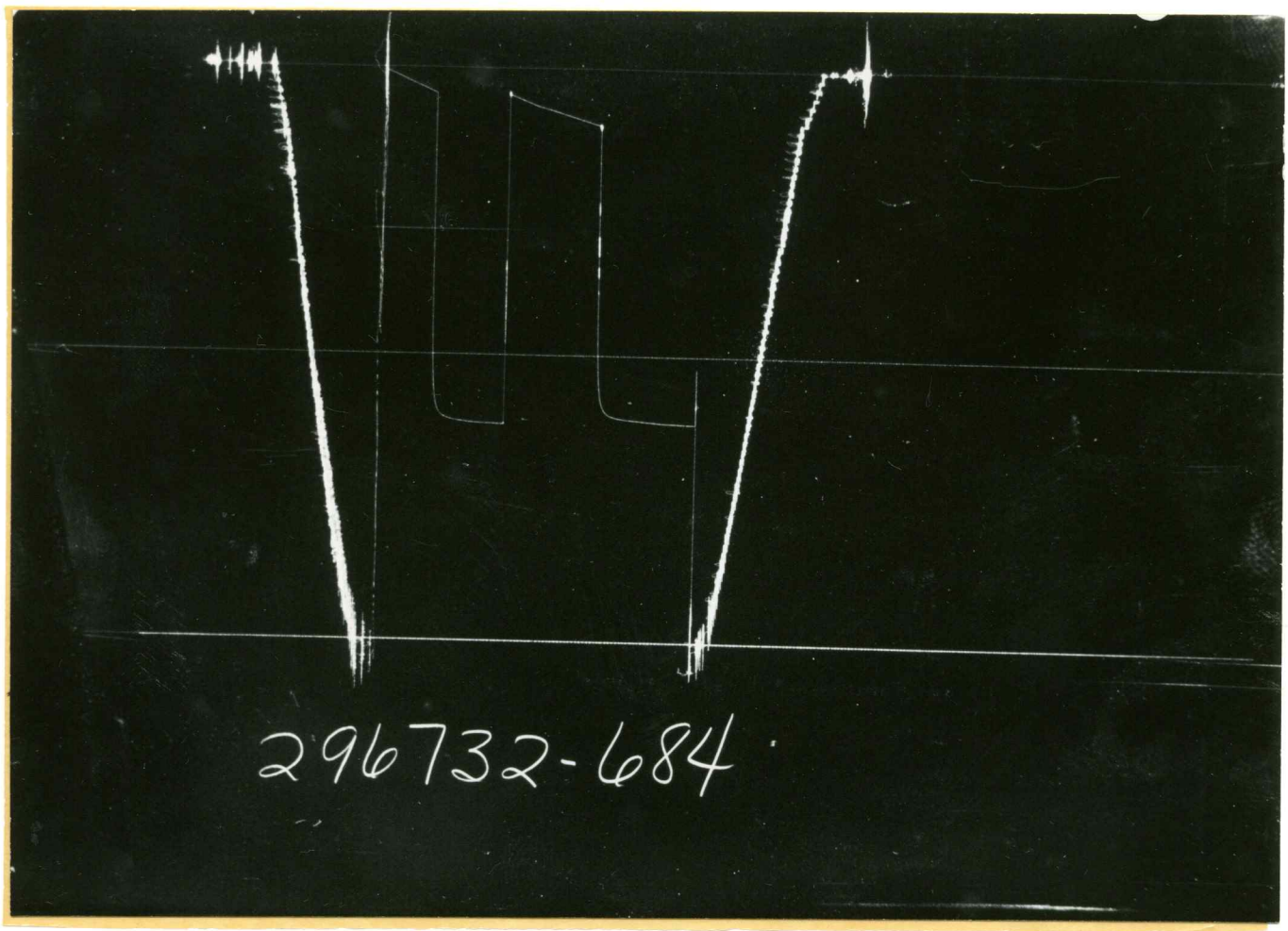
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1'	4252'
Water Cushion Valve				
Drill Pipe	4.50"	3.826"	3970'	
Drill Collars	4.50" WP	2.764"	283'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6'	4257'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4263'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	4264'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4280'
Distributor				
Packer Assembly				
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"	3.84"	6'	
	5"	3"	1.50'	4288'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4289'
Total Depth				4293'

FORM 187-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

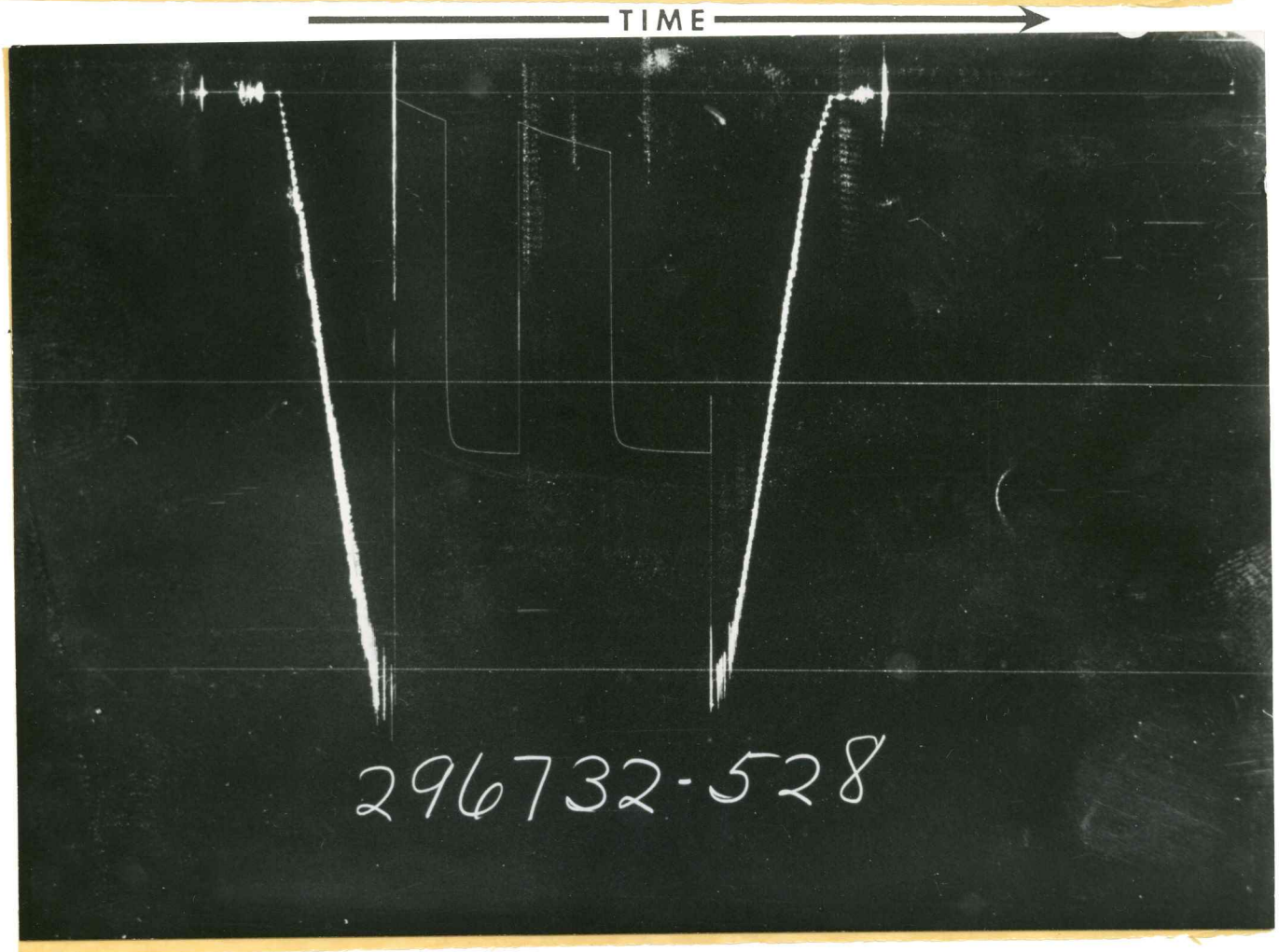
LITTLE'S 96676 7-68/74

5

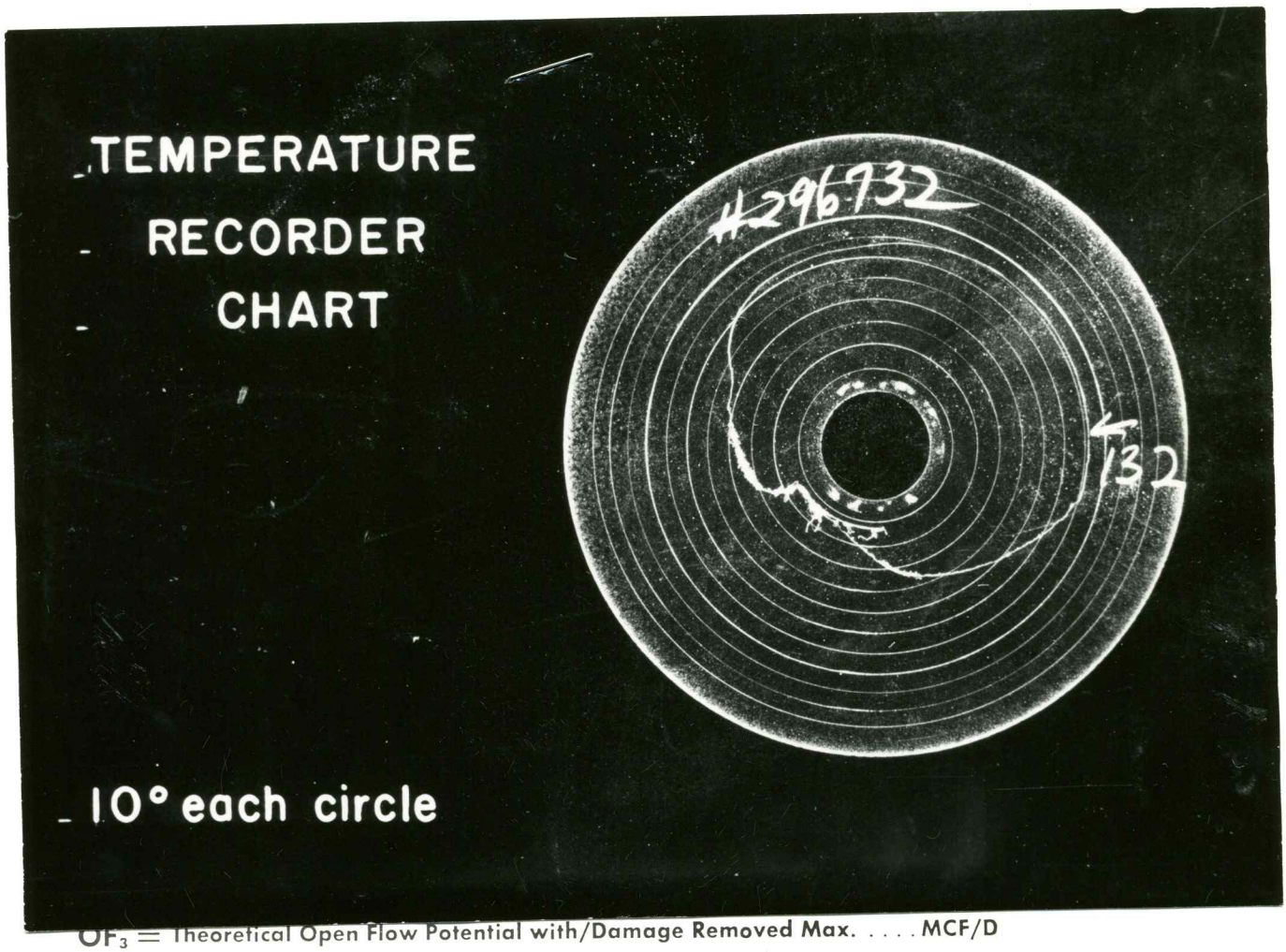


PRESSURE

TIME



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



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_{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.

FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity 37 ° API @ 60 °F.
Gas/Oil Ratio _____ cu. ft./bbl.

		RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@ °F.			ppm
Recovery Mud	@ °F.			ppm
Recovery Mud Filtrate	@ °F.			ppm
Mud Pit Sample	@ °F.			ppm
Mud Pit Sample Filtrate	@ °F.			ppm

Mud Weight 9.2 vis 48 sec

Date 1-12-78 Ticket Number 296733
Kind of Job OPEN HOLE Halliburton District HAYS
Tester MR. HAMMONDS Witness MR. MUELLER
Drilling Contractor SLAWSON DRILLING COMPANY # 2 sm

EQUIPMENT & HOLE DATA

Formation Tested Lower Kansas City
Elevation 2816' Kelly bushing Ft.
Net Productive Interval 6' Ft.
All Depths Measured From Kelly bushing
Total Depth 4340' Ft.
Main Hole/Casing Size 7 7/8" Hole
Drill Collar Length 283' I.D. 2.764" FW
Drill Pipe Length 4012' I.D. 3.826"
Packer Depth(s) 4323' Ft.
Depth Tester Valve 4306' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve Surface Choke 1/4" Bottom Choke 3/4"

Recovered 63 Feet of gas in pipe
Recovered 129 Feet of clean oil
Recovered 111 Feet of muddy oil
Recovered Feet of
Recovered Feet of

Meas. From Tester Valve

Remarks SEE PRODUCTION TEST DATA SHEET

NOTE: Unable to scribe 3000# line on BT # 528.

TEMPERATURE	Gauge No. 684		Gauge No. 528		Gauge No.		TIME	
	Depth: 4307 Ft.		Depth: 4336 Ft.		Depth: Ft.			
	12 Hour Clock		12 Hour Clock		Hour Clock		Tool Opened	A.M. 0650 P.M.
Est. °F.	Blanked Off no		Blanked Off yes		Blanked Off		Opened	A.M.
Actual 123 °F.	Pressures		Pressures		Pressures		Bypass	0950 P.M.
	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2051	2106	2063				
First Period Flow Initial		17	25	24			___	___
First Period Flow Final		51	60	63			30	30
First Period Closed in		987	997	997			45	45
Second Period Flow Initial		66	69	75			___	___
Second Period Flow Final		99	103	107			45	45
Second Period Closed in		920	928	926			60	60
Third Period Flow Initial							___	___
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic		2057	2071	2065			___	___

Lease Name PARIS "A" Well No. 1 Test No. 6 Legal Location Sec. - Twp. - Rng. 14 19 29 Field Area County LANE State KANSAS Tested Interval 4323 -4340' Lease Owner/Company Name DONALD C. SLAWSON

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

5

Casing perfs._____ Bottom choke_____ Surf. temp._____ °F Ticket No. 296733

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
0130					Called out
0400					Requested at this time
0445					On location-rig had just got drill pipe on bank.
0505					Picked up & made up tools
0520					Set tool in table
0535					Rig started drill pipe
0647					Tool on bottom
0650					Opened with a weak to strong blow
					in 30 minutes.
0720					Closed tool
0805					Opened tool with strong blow
					throughout opening.
0850					Closed tool
0950					Tool off bottom
					Rig pulled drill pipe to fluid
					which was oil
1120					Tool back thru table
1130					Broke tools down and left the
					tool on the catwalk
1145					Read charts
1200					Job complete.

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No.	684	Depth	4307'	Clock No.	17416	12 hour	Ticket No.	296733	

	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 $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.0000	17	.0000		51	.0000	66	.0000		99					
1	.0333	24	.0324*		689	.0331*	63	.0394		553					
2	.0667	30	.0584		782	.0861	70	.0788		661					
3	.1000	35	.0844		824	.1391	77	.1182		713					
4	.1333	40	.1103		855	.1921	85	.1576		754					
5	.1667	45	.1363		882	.2450	91	.1970		789					
6	.2000	51	.1622		904	.2980	99	.2364		821					
7			.1882		925			.2758		850					
8			.2142		944			.3152		877					
9			.2401		960			.3546		900					
10			.2661		975			.3940		920					
11			.2920		987										
12															
13															
14															
15															

Gauge No.	528	Depth	4336'	Clock No.	17416	12 hour			

0	.0000	24	.0000		63	.0000	75	.0000		107					
1	.0340	34	.0331*		681	.0334*	74	.0398		560					
2	.0680	41	.0596		788	.0870	81	.0796		671					
3	.1020	47	.0861		833	.1405	89	.1194		721					
4	.1360	52	.1126		865	.1940	95	.1592		763					
5	.1700	57	.1391		891	.2475	102	.1990		798					
6	.2040	63	.1656		913	.3010	107	.2388		828					
7			.1921		933			.2786		857					
8			.2185		951			.3184		882					
9			.2450		968			.3582		906					
10			.2715		983			.3980		926					
11			.2980		997										
12															
13															
14															
15															

Reading Interval	5	4	8	6			Minutes

REMARKS: *First interval is equal to 5 minutes.

5

SPECIAL PRESSURE DATA

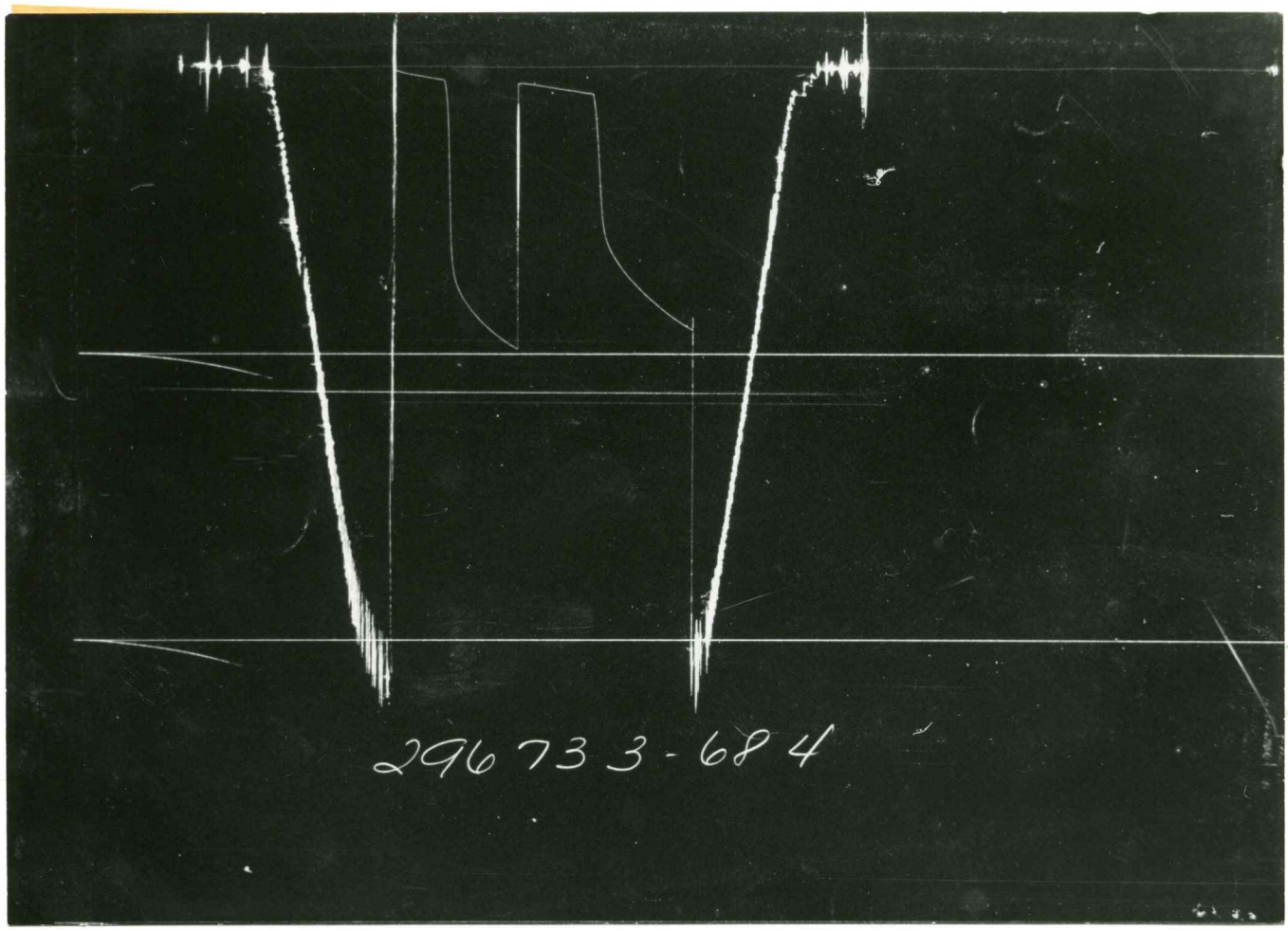
TICKET NO. 296733

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1'	4295'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	4012'	
Drill Collars	4.5"	2.764"	283'	Flex wt.
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6'	4300'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4306'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	4307'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4323'
Distributor				
Packer Assembly				
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"	3.84"	10'	
Temp. case	5"	3"	1.50'	4335'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4336'
Total Depth				4340'

FORM 187-R1—PRINTED IN U.S.A.

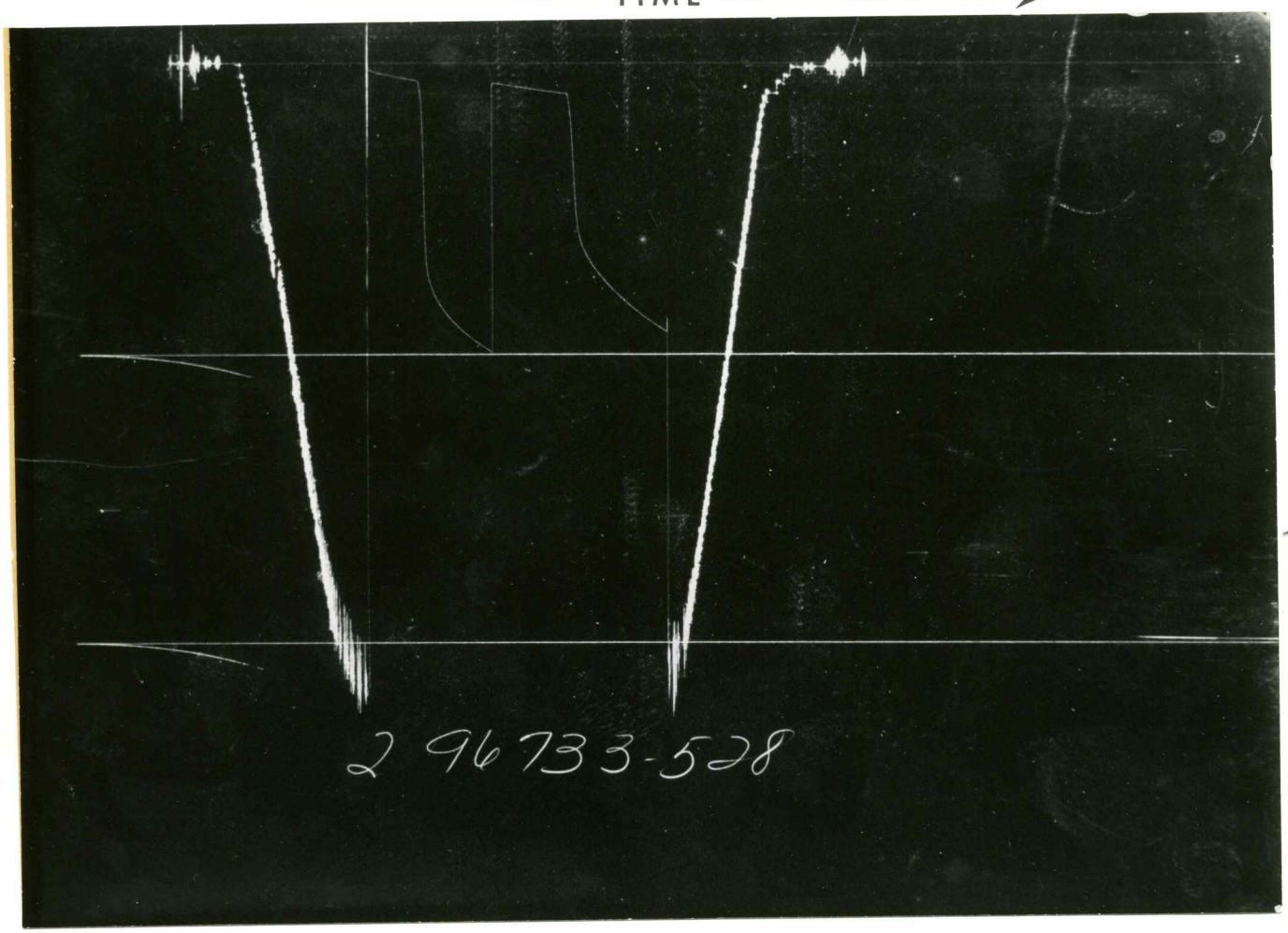
EQUIPMENT DATA

LITTLE'S 96676 75C 9/74

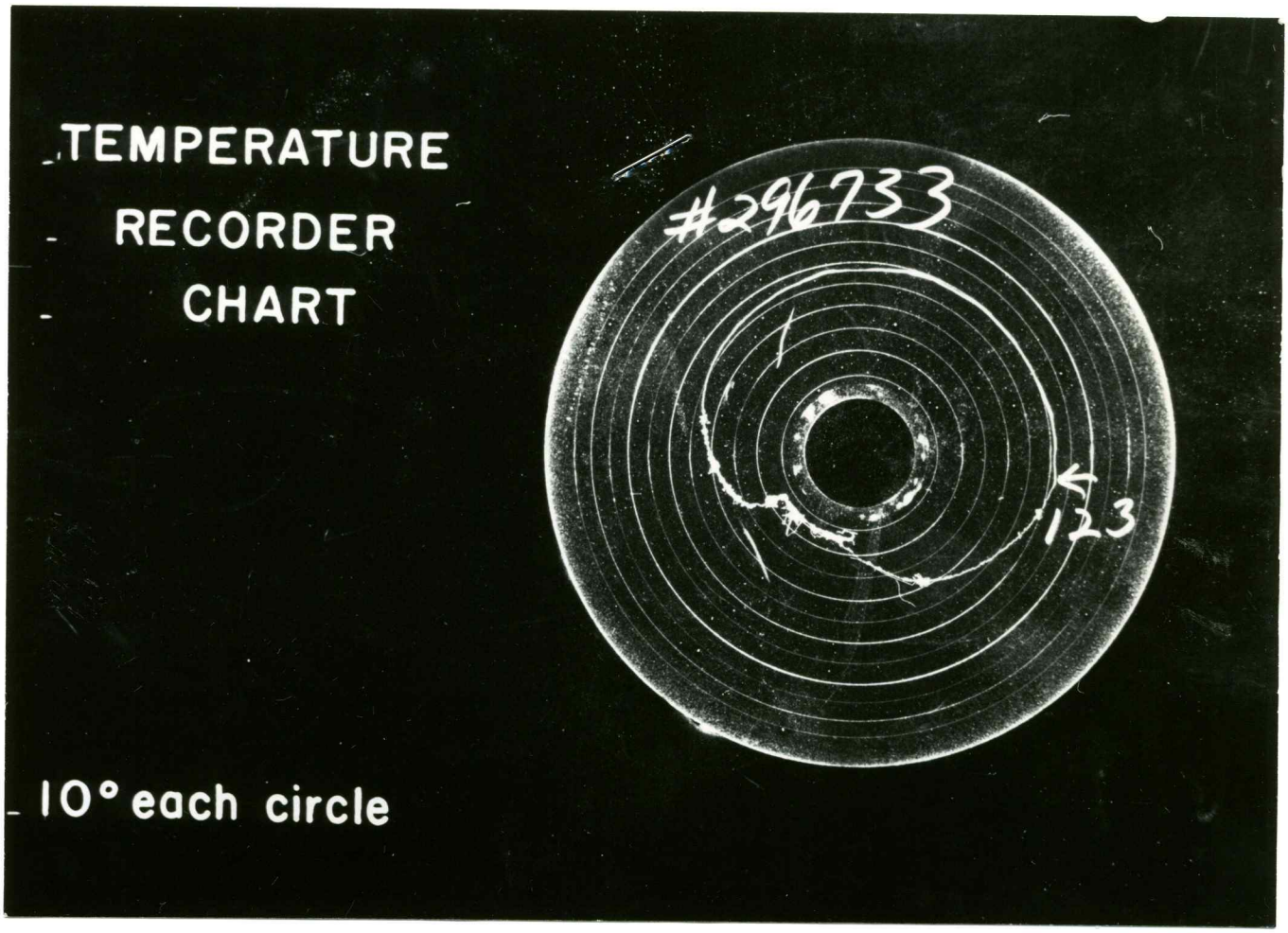


PRESSURE

TIME



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



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
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

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity 36.6 ° API @ 60 °F.
Gas/Oil Ratio _____ cu. ft./bbl.

		RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@	°F.		ppm
Recovery Mud	@	°F.		ppm
Recovery Mud Filtrate	@	°F.		ppm
Mud Pit Sample	@	°F.		ppm
Mud Pit Sample Filtrate	@	°F.		ppm

Mud Weight 9.5 vis 52 sec

Date 1-13-78 Ticket Number 296734
Kind of Job OPEN HOLE TEST Halliburton District HAYS
Tester GARRISON Witness G. MUELLER
Drilling Contractor SLAWSON DRILLING COMPANY PW

EQUIPMENT & HOLE DATA

Formation Tested Marmaton
Elevation 2816' K.B. Ft.
Net Productive Interval _____ Ft.
All Depths Measured From Kelly Bushing
Total Depth 4410' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 284' I.D. 2.764" WP
Drill Pipe Length 4068' I.D. 3.826"
Packer Depth(s) 4379' Ft.
Depth Tester Valve 4358' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve
Surface Choke 1/4" Bottom Choke 3/4"

Recovered 60 Feet of gas in pipe.
Recovered 1116 Feet of clean gassy oil-36.6 gravity Cor. @ 60°
Recovered 126 Feet of oil cut watery mud - 10% oil - 54% mud - 36% water
Recovered 126 Feet of oil cut muddy water - 10% oil - 32% mud & 58% water
Recovered Feet of
Remarks

SEE PRODUCTION TEST DATA SHEET.....

TEMPERATURE	Gauge No. 684 Depth: 4363 Ft.	Gauge No. 528 Depth: 4406 Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 0115 A.M. P.M.
Est. °F.	Blanked Off no	Blanked Off yes	Blanked Off	
4405' @ Actual 125 °F.	Pressures	Pressures	Pressures	Opened Bypass 0415 A.M. P.M.

	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2119	2132	2144				
First Period Flow Initial		55	60	78			———	———
First Period Flow Final		299	336	315			30	31
First Period Closed in		1165	1187	1187			45	44
Second Period Flow Initial		319	336	338			———	———
Second Period Flow Final		513	534	539			45	45
Second Period Closed in		1158	1179	1181			60	60
Third Period Flow Initial							———	———
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic		2088	2124	2111			———	———

Legal Location Sec. - Twp. - Rng. 14 - 19 S - 29 W
Lease Name PARIS "A"
Well No. 1
Test No. 7
Tested Interval 4379' - 4410'
Lease Owner/Company Name DONALD C. SLAWSON
Field Area
County LANE
State KANSAS
Meas. From Tester Valve

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

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Casing perfs._____ Bottom choke_____ Surf. temp_____ °F Ticket No. 296734

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
2215					Time called - ready now.
2315					On location. Rig pulled drill pipe.
2330					Picked up and made up tools.
2345					Tool through table.
2350					Rig started drill pipe.
0111					Tool on bottom.
0115					Opened tool with a weak to strong blow
					in 3 minutes.
0145					Closed tool.
0230					Reopened tool with a strong blow throughout
0315					Closed tool.
0415					Tool off bottom.
0915					Tool back through table.
0945					Break down tool and laid on walk.
0950					Read charts.
1015					Job completed.
					Pulled to fluid and tried to reverse
					out but pin would not break to allow
					us to circulate - left fluid hanging
					until daylight.

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 SM

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Gauge No. 684			Depth 4363'			Clock No. 17417			12 hour	Ticket No. 296734				
	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"	$\text{Log}\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log}\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log}\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	55	.000		299	.000	319	.000		513					
1	.0397*	136	.0267		900	.0338**	344	.0267		920					
2	.0727	176	.0535		978	.0878	385	.0533		975					
3	.1058	210	.0802		1026	.1419	423	.0800		1011					
4	.1389	241	.1069		1061	.1959	456	.1067		1037					
5	.1719	272	.1337		1085	.2499	488	.1334		1059					
6	.2050	299	.1604		1105	.3040	513	.1600		1077					
7			.1871		1122			.1867		1091					
8			.2138		1136			.2134		1104					
9			.2406		1147			.2400		1114					
10			.2673		1156			.2667		1124					
11			.2940		1165			.2934		1132					
12								.3200		1140					
13								.3467		1148					
14								.3733		1154					
15								.4000		1158					
Gauge No. 528					Depth 4406'			Clock No. 17416			12 hour				
0	.000	78	.000		315	.000	338	.000		539					
1	.0401*	153	.0272		912	.0341**	360	.0271		936					
2	.0735	191	.0544		991	.0887	404	.0541		993					
3	.1068	228	.0815		1041	.1433	443	.0812		1030					
4	.1402	259	.1087		1075	.1979	478	.1083		1057					
5	.1736	291	.1359		1102	.2524	509	.1354		1079					
6	.2070	315	.1631		1123	.3070	539	.1624		1098					
7			.1903		1141			.1895		1111					
8			.2174		1155			.2166		1124					
9			.2446		1168			.2436		1136					
10			.2718		1178			.2707		1146					
11			.2990		1187			.2978		1154					
12								.3248		1161					
13								.3519		1168					
14								.3790		1175					
15								.4060		1181					
Reading Interval	5		4			8		4							Minutes

REMARKS: * = 6 minute interval ** = 5 minute interval

SPECIAL PRESSURE DATA

TICKET NO. 296734

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	4068'	
~~Drill Collars~~ Weight Pipe.	4.5"	2.764"	284'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.00"	.87"	6.05'	4352'
Dual CIP Sampler				
Hydro-Spring Tester	5.00"	.75"	5.00'	4358'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.75"	4.00'	4363'
Hydraulic Jar	5.0"	1.75"	5.00'	
VR Safety Joint	5.00"	1.00"	2.85'	
Pressure Equalizing Crossover				
Packer Assembly	5.85"	1.53"	5.85'	4379'
Distributor				
Packer Assembly				
Flush Joint Anchor	5.0"	3.84"	23'	
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~~ Temp. Case	5.0"	3.75"	2.00'	4405'
Blanked-Off B.T. Running Case	5.0"	2.75"	4.00'	4406'
Total Depth				4410'

FORM 187-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

LITTLE'S 96676 75C 8/74

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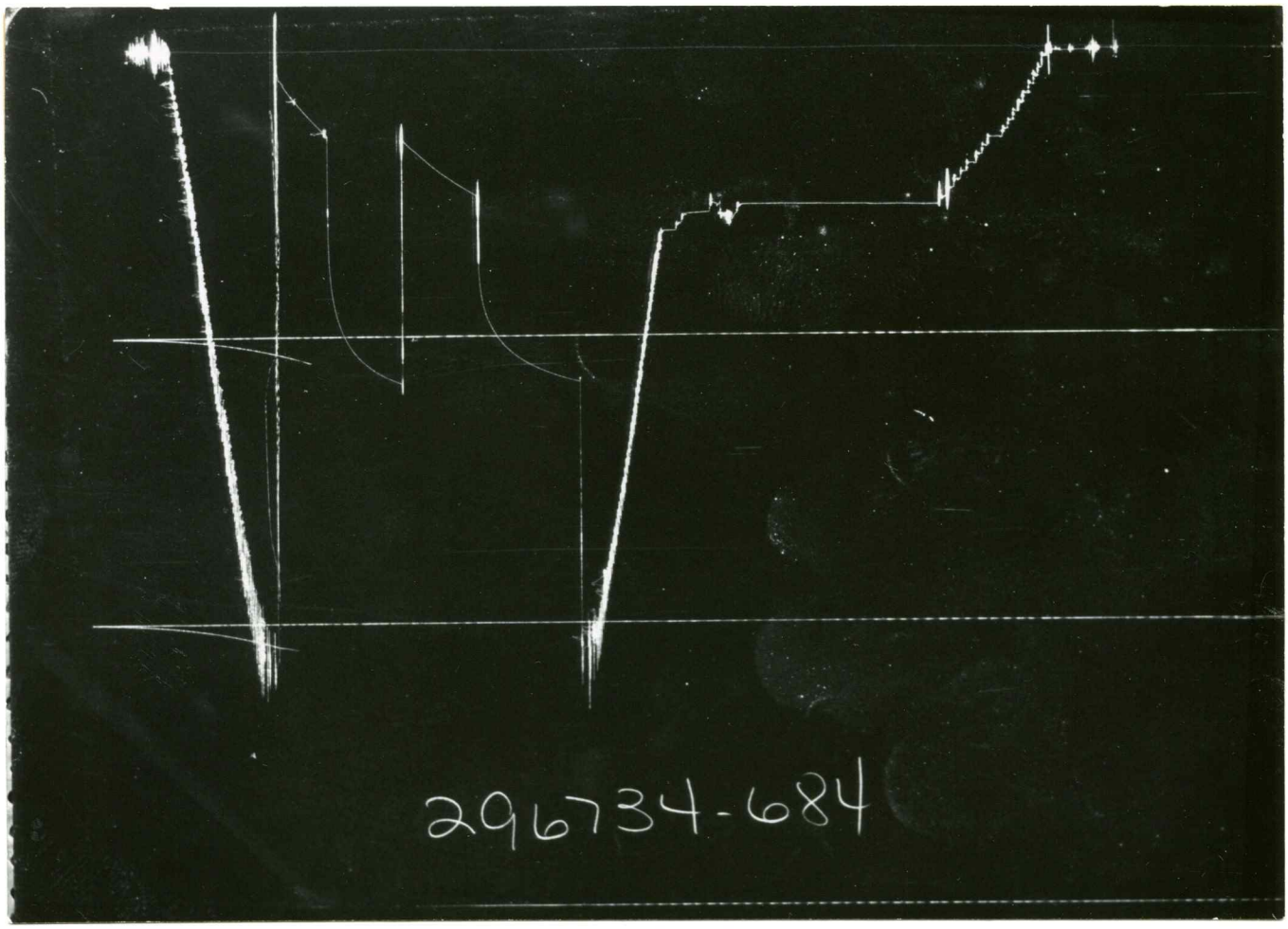
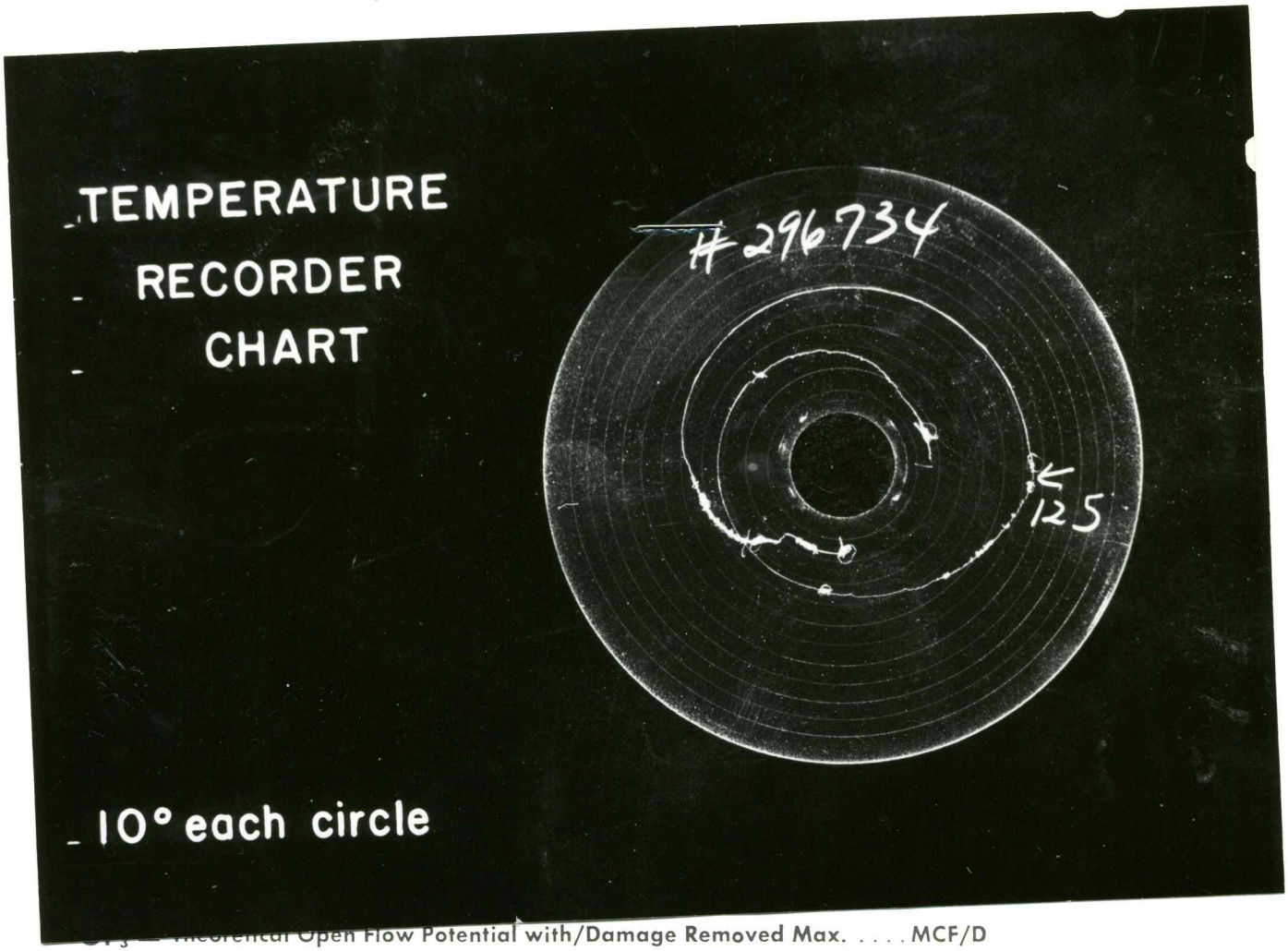


PRESSURE

TIME

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



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_{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.

FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity _____ ° API @ _____ °F.
Gas/Oil Ratio _____ cu. ft./bbl.

		RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@ °F.			ppm
Recovery Mud	@ °F.			ppm
Recovery Mud Filtrate	@ °F.			ppm
Mud Pit Sample	@ °F.			ppm
Mud Pit Sample Filtrate	@ °F.			ppm

Mud Weight 9.2 vis 44 sec

Date 1-14-78 Ticket Number 296735
Kind of Job OPEN HOLE Halliburton District HAYS
Tester MR. GARRISON Witness MR. MUELLER
Drilling Contractor SLAWSON DRILLING COMPANY #2 BC S

EQUIPMENT & HOLE DATA

Formation Tested Marmington
Elevation 2816' KB Ft.
Net Productive Interval _____ Ft.
All Depths Measured From Kelly Bushing
Total Depth 4527' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 220' I.D. 2.764"
Drill Pipe Length 4239' I.D. 3.826"
Packer Depth(s) 4422' Ft.
Depth Tester Valve 4401' Ft.

Cushion TYPE _____ AMOUNT _____ Ft. Depth Back Pres. Valve _____ Surface Choke 1/4" Bottom Choke 3/4"

Recovered 300 Feet of Muddy salt water with a slight scum of oil
Recovered 2472 Feet of Salt water
Recovered _____ Feet of
Recovered _____ Feet of
Recovered _____ Feet of

Meas. From Tester Valve

Remarks SEE PRODUCTION TEST DATA SHEET.

Q = Questionable

TEMPERATURE	Gauge No. 684 Depth: 4406' Ft.	Gauge No. 528 Depth: 4523' Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 0500 A.M. P.M.
Est. °F.	Blanked Off No	Blanked Off Yes	Blanked Off	Opened Bypass 0800 A.M. P.M.
4522' Actual 128 °F.	Pressures	Pressures	Pressures	

	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2114	2202	2172				
First Period Flow Initial		239-Q	241	247			———	———
First Period Flow Final		982	1041	1037			30	30
First Period Closed in		1219	1274	1275			45	45
Second Period Flow Initial		1010	1058	1067			———	———
Second Period Flow Final		1202	1256	1256			45	45
Second Period Closed in		1227	1282	1280			60	60
Third Period Flow Initial							———	———
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic		2114	2185	2172			———	———

Legal Location Sec. - Twp. - Rng. 14 - 19S - 29W
Lease Name PARIS "A"
Well No. 1
Test No. 8
Tested Interval 4422' - 4527'
Lease Owner/Company Name DONALD C. SLAWSON
Field Area
County LANE
State KANSAS

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

5

Casing perfs.____ Bottom choke____ Surf. temp.____ °F Ticket No. 296735

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
2445					Time called, ready now
0145					On location, rig pulled drill pipe
0305					Picked up and made up tool
0330					Tool through table
0335					Rig started drill pipe
0456					Tool on bottom
0500					Tool opened with a weak to strong blow
					in one minute
0530					Closed tool
0615					Opened tool with a strong blow throughout
0700					Closed tool
0800					Tool off bottom
1045					Tool back through table, reversed out
					fluid in pit
1130					Broke down tool, laid on walk
1135					Read charts
1200					Job completed

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PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No.	684	Depth	4406'	Clock No.	17417	12 hour	Ticket No.	296735	

	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 $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.0000	239-Q	.0000		982	.0000	1010	.0000		1202					
1	.0325	428	.0328		1135*	.0333	1062*	.3970		1227					
2	.0650	596	.0590		1158	.0867	1129								
3	.0975	728	.0852		1173	.1400	1165								
4	.1300	833	.1114		1185	.1933	1184								
5	.1625	919	.1377		1193	.2467	1195								
6	.1950	982	.1639		1200	.3000	1202								
7			.1901		1206										
8			.2163		1211										
9			.2426		1215										
10			.2688		1217										
11			.2950		1219										
12															
13															
14															
15															

Gauge No.	528	Depth	4523'	Clock No.	17416	12 hour

0	.0000	247	.0000		1037	.0000	1067	.0000		1256					
1	.0332	485	.0333		1188*	.0336	1117*	.4020		1280					
2	.0663	654	.0600		1212	.0872	1185								
3	.0995	786	.0867		1229	.1409	1218								
4	.1327	889	.1133		1241	.1946	1238								
5	.1658	971	.1400		1250	.2483	1250								
6	.1990	1037	.1666		1257	.3020	1256								
7			.1933		1262										
8			.2200		1266										
9			.2466		1269										
10			.2733		1272										
11			.3000		1275										
12															
13															
14															
15															

Reading Interval	5	4	8				Minutes

REMARKS: *Interval = 5 minutes

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SPECIAL PRESSURE DATA

LITTLE'S 96673 75C 8/74

TICKET NO. 296735

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	4239'	
Drill Collars	4.5"	2.764"	220'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6.05'	4395'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4401'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.75"	4'	4406'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	2.85'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4422'
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	3.84"	6'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars weight pipe and CO	4.5"	2.764"	65'	
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3.84"	26'	
Temp. Case	5"	3.75"	2'	
Blanked-Off B.T. Running Case	5"	2.75"	4'	4523'
Total Depth				4527'

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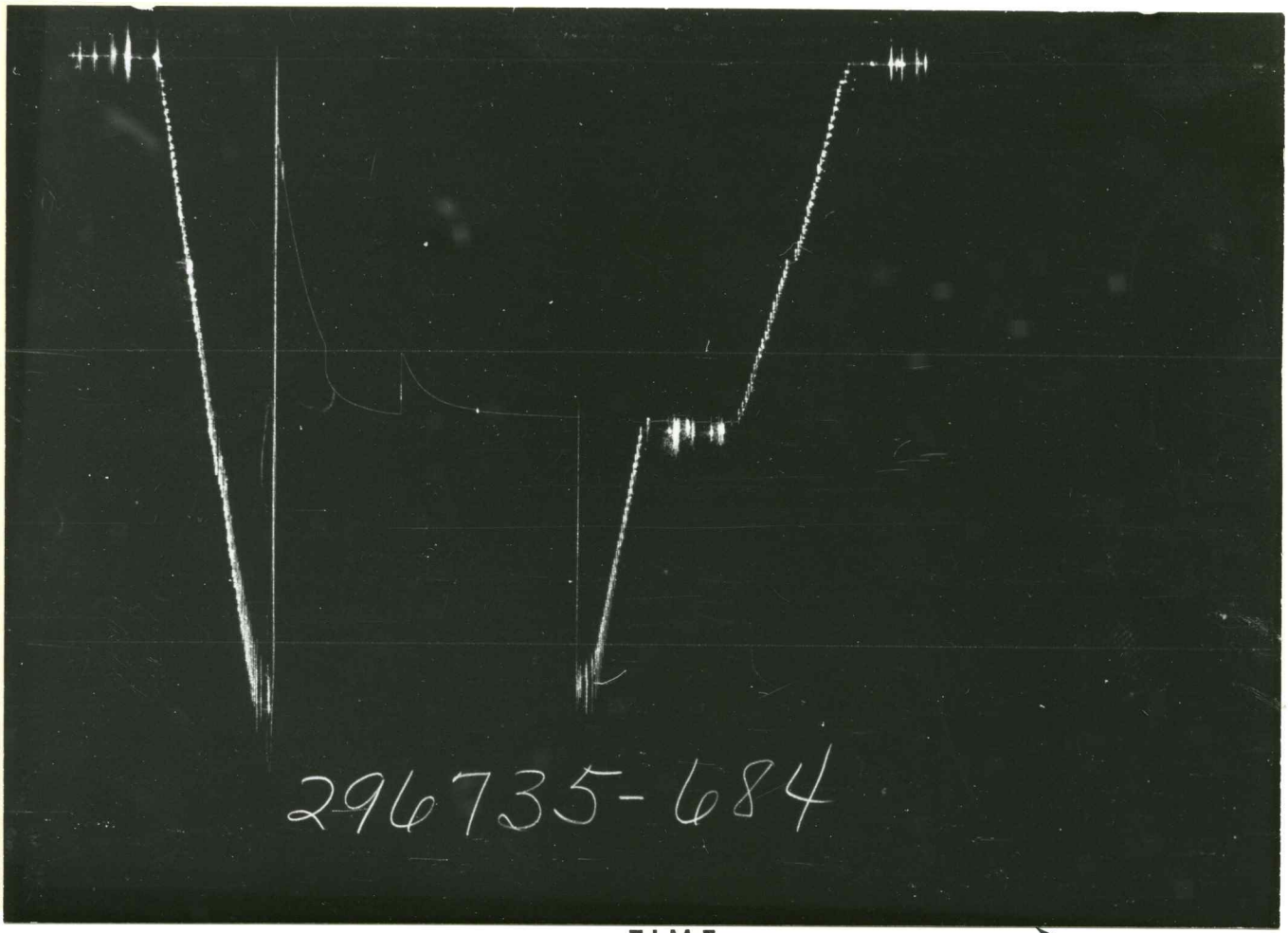
EQUIPMENT DATA

LITTLE'S 96676 75C 8/74

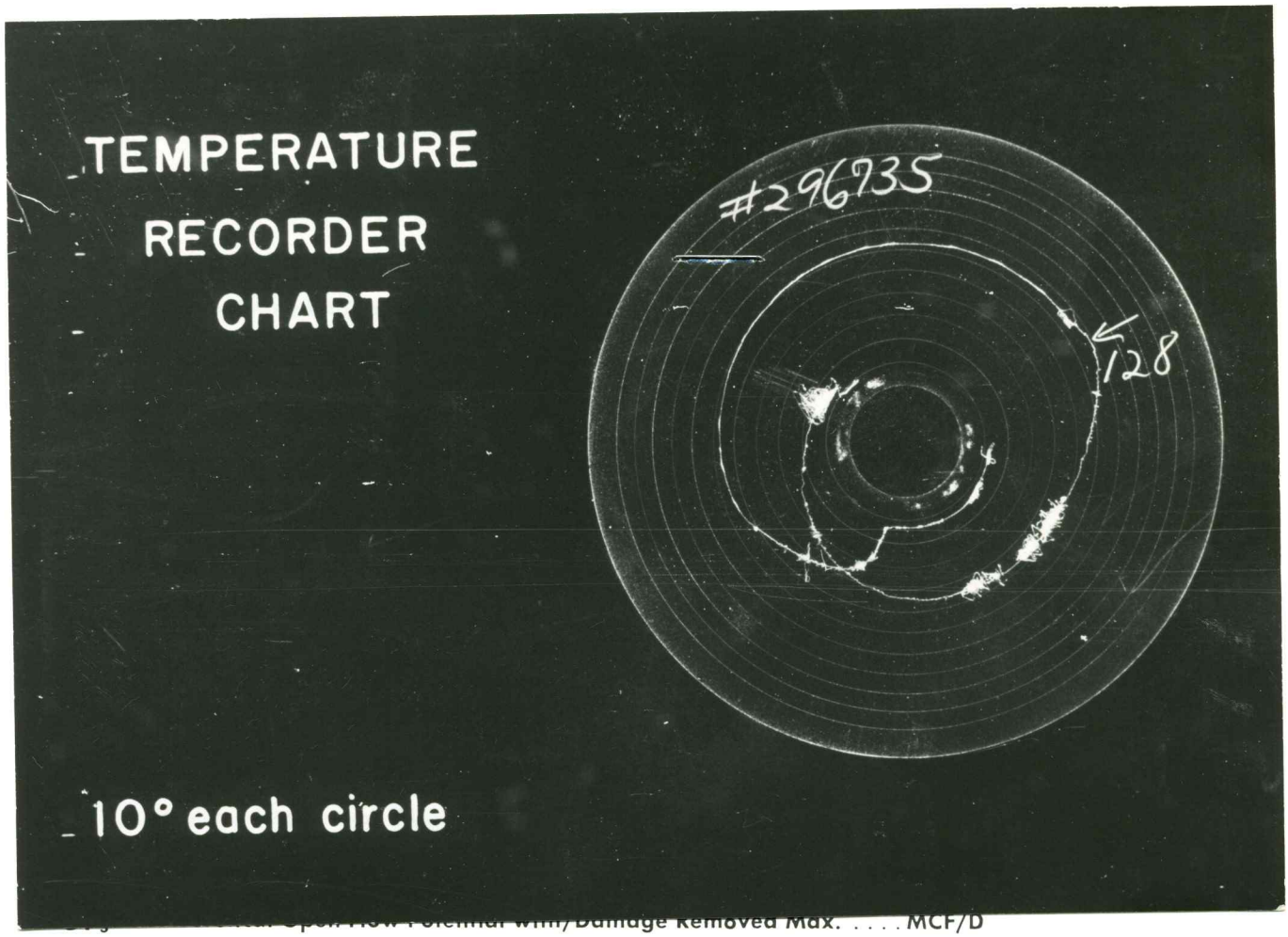
5



PRESSURE

TIME

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



[illegible] 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_{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.

FLUID SAMPLE DATA

Sampler Pressure _____ P.S.I.G. at Surface
Recovery: Cu. Ft. Gas _____
cc. Oil _____
cc. Water _____
cc. Mud _____
Tot. Liquid cc. _____
Gravity _____ ° API @ _____ °F.
Gas/Oil Ratio _____ cu. ft./bbl.

		RESISTIVITY		CHLORIDE CONTENT
Recovery Water	@	°F.		ppm
Recovery Mud	@	°F.		ppm
Recovery Mud Filtrate	@	°F.		ppm
Mud Pit Sample	@	°F.		ppm
Mud Pit Sample Filtrate	@	°F.		ppm

Mud Weight 9.1 vis 88 sec

Date 1-14-78 Ticket Number 296736
Kind of Job OPEN HOLE TEST Halliburton District HAYS
Tester GARRISON Witness G. MUELLER
Drilling Contractor SLAWSON DRILLING COMPANY #2

EQUIPMENT & HOLE DATA

Formation Tested Fort Scott
Elevation 2816' KB Ft.
Net Productive Interval _____ Ft.
All Depths Measured From Kelly Bushing
Total Depth 4555' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 252' WP I.D. 2.764" WP
Drill Pipe Length 4241' I.D. 3.826"
Packer Depth(s) 4520' Ft.
Depth Tester Valve 4499' Ft.

Cushion TYPE _____ AMOUNT _____ Ft. Depth Back Pres. Valve _____ Surface Choke 1/4" Bottom Choke 3/4"

Recovered 50 Feet of 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. 684	Gauge No. 528	Gauge No.	TIME
	Depth: 4504 Ft.	Depth: 4551 Ft.	Depth: Ft.	
Est. °F.	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened A.M.
4550	Blanked Off NO	Blanked Off YES	Blanked Off	2130 P.M.
Actual 123 °F.	Pressures	Pressures	Pressures	Opened Bypass A.M. 2330 P.M.

	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		2211	2281	2231				
First Period Flow Initial		25	35	42			___	___
First Period Flow Final		29	43	49			30	
First Period Closed in		85	104	107			45	
Second Period Flow Initial		30	43	51			___	___
Second Period Flow Final		26	60	50			45	
Second Period Closed in		57	78	79			60	
Third Period Flow Initial							___	___
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic		2120	2246	2145			___	___

Legal Location Sec. - Twp. - Rng. 14 - 19S - 29W
Lease Name PARIS "A" Well No. 1 Test No. 89
Field Area
Meas. From Tester Valve
Tested Interval 4520' - 4555'
County LANE State KANSAS
Lease Owner/Company Name DONALD C. SLAWSON

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No. 296736

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
1755					Time called. Ready now.
1900					On location. Rig pulling drill pipe.
2000					Picked up and made up tool.
2020					Tool through table.
2025					Rig started drill pipe.
2126					Tool on bottom.
2130					Hydrospring opened with a weak blow,
					very slowly building.
2200					Closed tool.
2245					Opened tool with a weak to fair blow.
2330					Closed tool.
2430					Tool off bottom.
0200					Tool back through table.
0230					Broke down tool and laid on walk.
0235					Read charts.
0300					Job complete.

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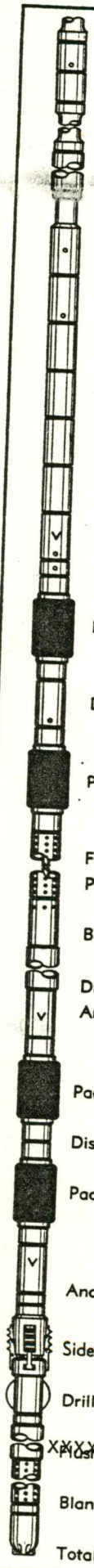
PRODUCTION TEST DATA

LITTLE'S 96672 5M 9/74

S

TICKET NO. 296736



	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	4241'	
~~Drill Collars~~ Weight Pipe	4.5"	2.764"	252'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6.05'	4493'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4499'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.75"	4'	4504'
Hydraulic Jar	5"	1.75"	5'	
VR Safety Joint	5"	1"	2.85'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4520'
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	3.84"	27'	
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~~ Temperature Case	5"	3.75"	2'	4550'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4551'
Total Depth				4555'

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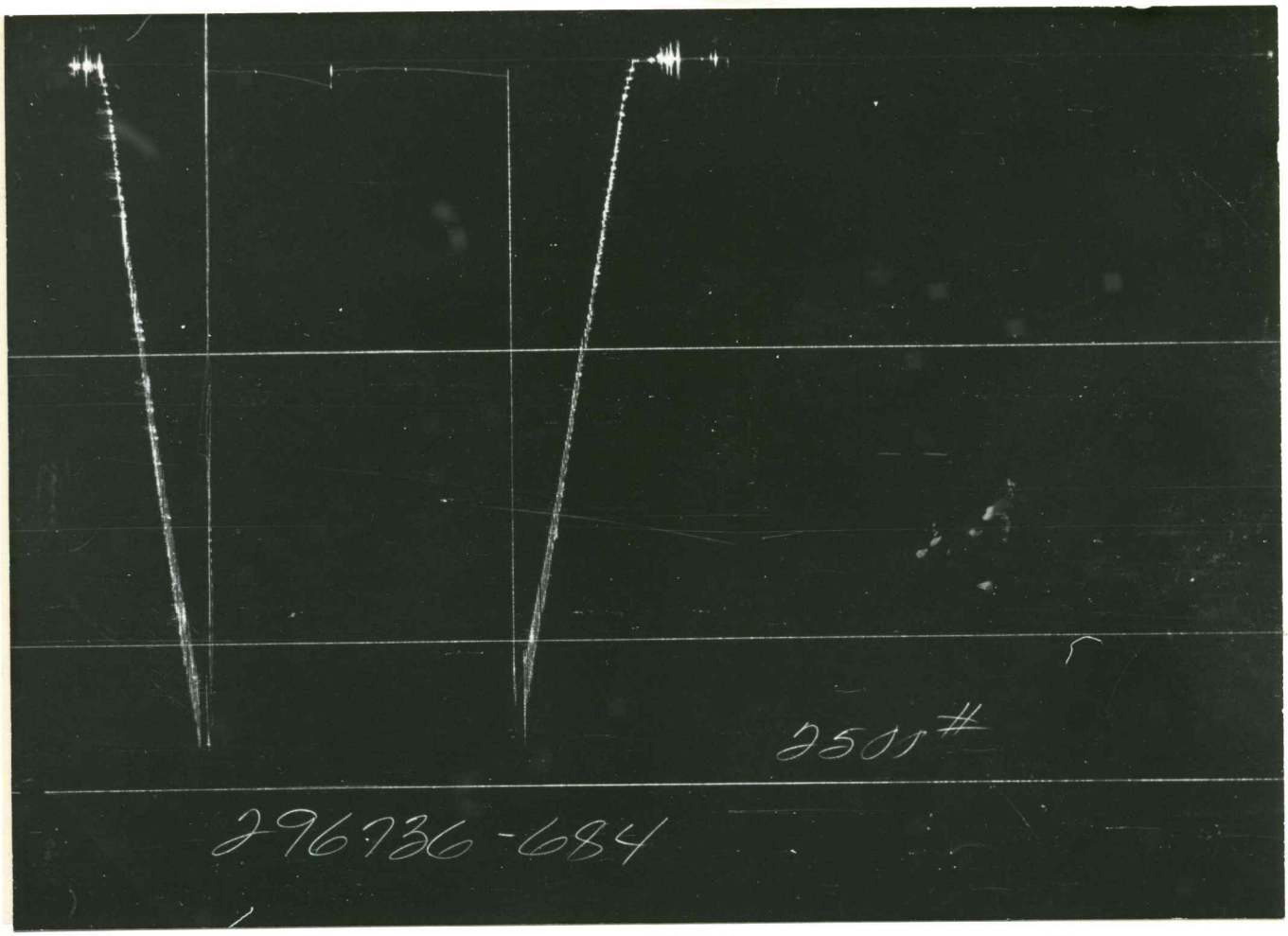
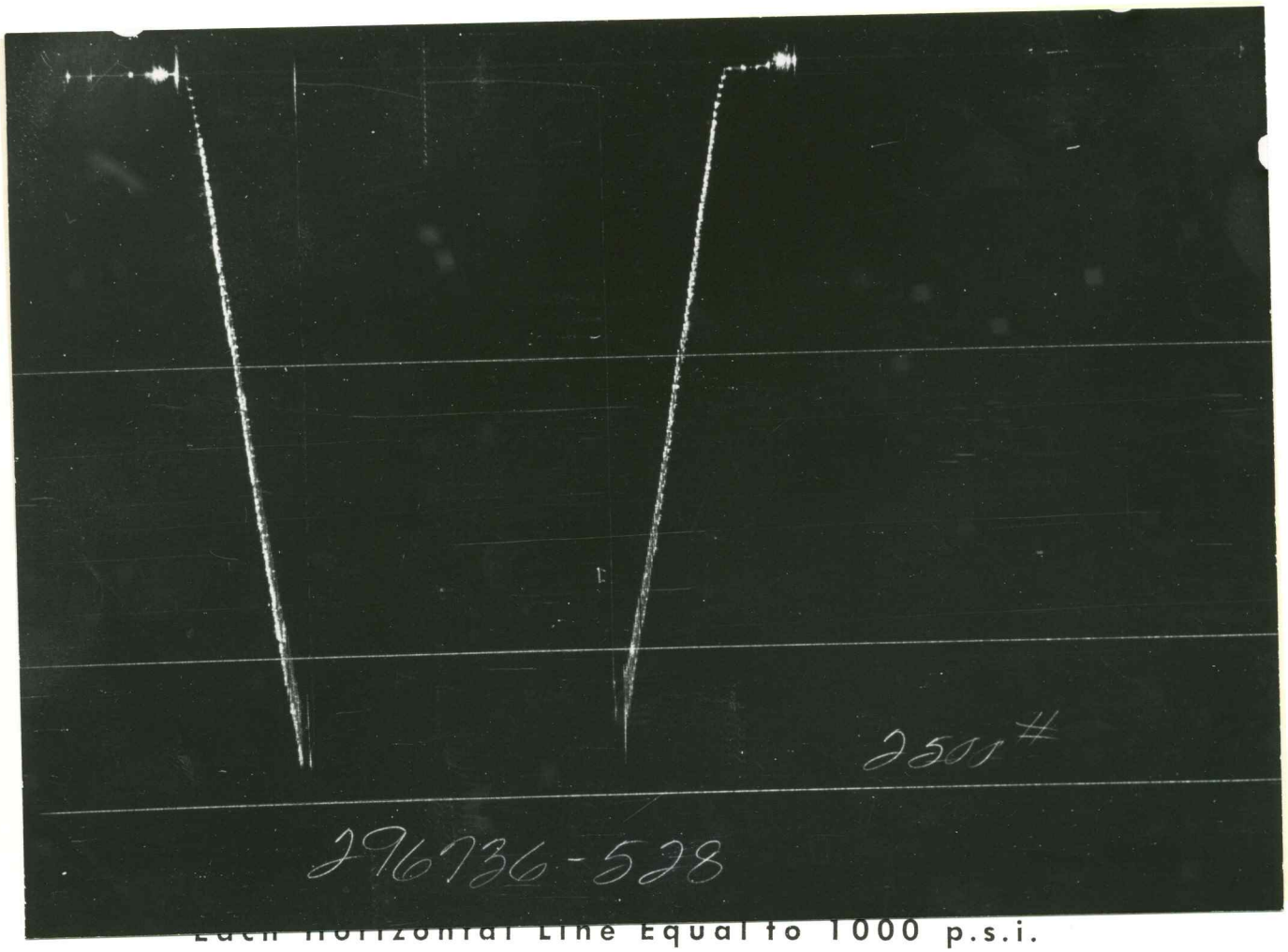
EQUIPMENT DATA

LITTLE'S 96676 75C 8/74

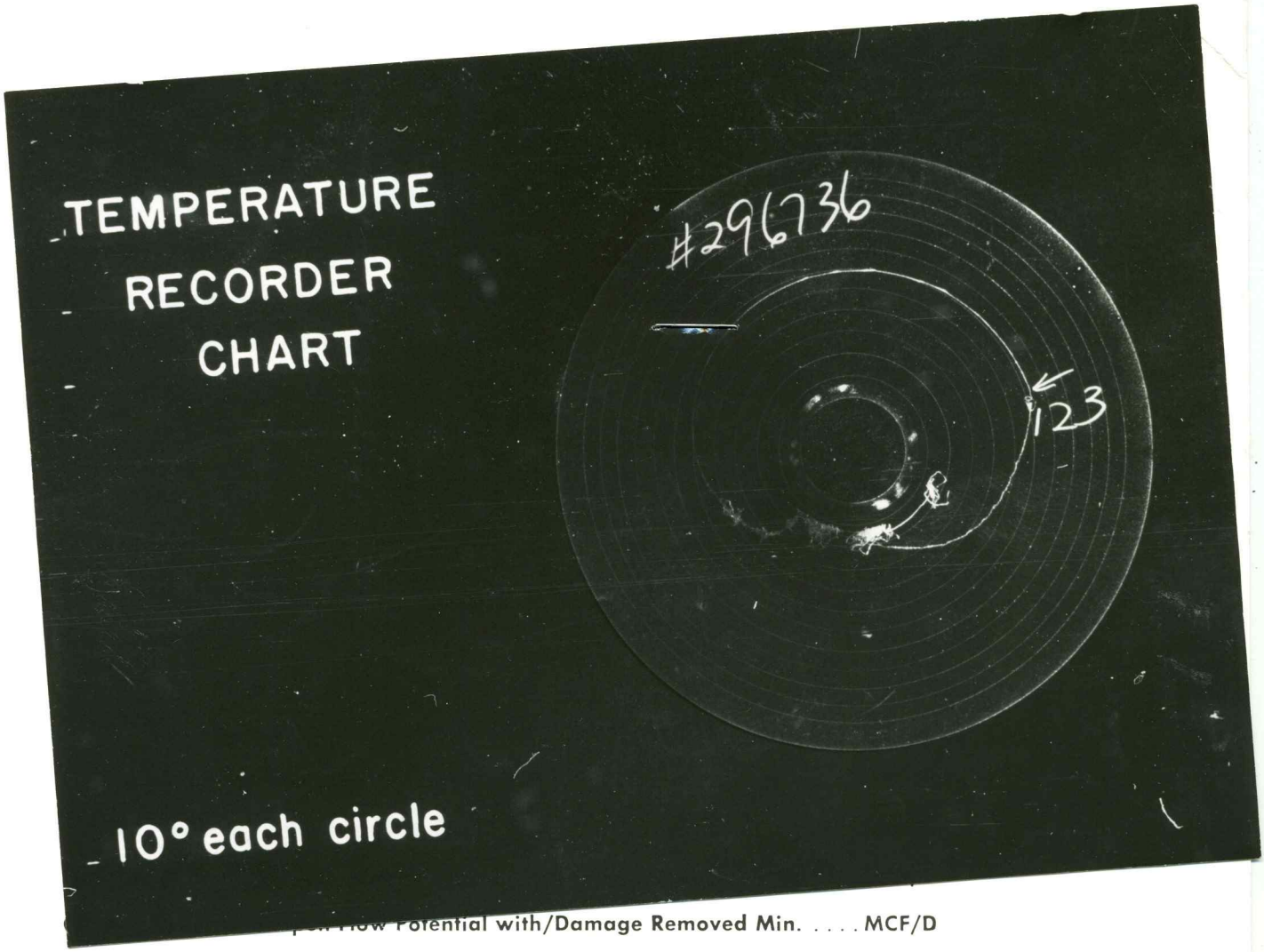


PRESSURE

TIME



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



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

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.