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 8.9 vis 40 Sec.

Date 2-22-77 Ticket Number 135346
Kind of Job OPEN HOLE Halliburton District HAYS
Tester MR. GARRISON Witness MR. LEWELLYN
Drilling Contractor DNB DRILLING COMPANY #2 BC S

EQUIPMENT & HOLE DATA

Formation Tested Kansas City
Elevation 2548' KB Ft.
Net Productive Interval Ft.
All Depths Measured From Kelly Bushing
Total Depth 3675' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 921' WP I.D. 2.764"
Drill Pipe Length 2700' I.D. 3.826"
Packer Depth(s) 3644' - 3650' Ft.
Depth Tester Valve 3628' Ft.

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

Recovered 260 Feet of Muddy salt water
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET.

TEMPERATURE	Gauge No. 317	Gauge No. 195	Gauge No.	TIME
	Depth: 3633' Ft.	Depth: 3671' Ft.	Depth: Ft.	
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 0830 A.M. P.M.
Est. 110 °F.	Blanked Off -	Blanked Off -	Blanked Off	Opened A.M.
Actual °F.	Pressures	Pressures	Pressures	Bypass 1245 P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			1696	1751	1711				
First Period	Flow Initial		11	42	33			———	———
	Flow Final		37	52	44			30	29
	Closed in		1109	1115	1114			45	44
Second Period	Flow Initial		45	73	65			———	———
	Flow Final		130	136	134			120	120
	Closed in		1055	1073	1063			60	61
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic			1664	1719	1684			———	———

Lease Name | Legal Location Sec. - Twp. - Rng. 19 - 15S - 29W | Well No. | Test No. | Field Area HOOT OWL | Meas. From Tester Valve | Tested Interval | County GOVE | State KANSAS | Lease Owner/Company Name

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No. 135346

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
0400					Time called out, ready now
0600					On location, rig pulled drill pipe
					for DST #1
0715					Picked up and made up tool
0740					Tool through table
0745					Rig started drill pipe
0827					Tool on bottom, slid 2'
0830					Tool opened with a weak to fair blow
					in 20 minutes and remained the same
0900					Closed tool
0945					Opened tool with a weak to fair blow
					in 25 minutes
1145					Closed tool
1245					Tool off bottom
1345					Tool back through table
1400					Broke down tool and laid on walk
1430					Read charts
1430					Job completed

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No. 317			Depth 3633'			Clock No. 11657			12 hour	Ticket No. 135346				
	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		37	.0000	45	.0000		130					
1	.0277	16*	.0275		962	.1370	57	.0340		885**					
2	.0624	20	.0551		1014	.2740	75	.0612		935					
3	.0970	25	.0826		1042	.4110	88	.0884		962					
4	.1317	30	.1102		1060	.5480	104	.1157		979					
5	.1663	34	.1377		1073	.6850	117	.1429		994					
6	.2010	37	.1653		1082	.8220	130	.1701		1005					
7			.1928		1090			.1973		1014					
8			.2204		1097			.2245		1021					
9			.2479		1102			.2517		1028					
10			.2755		1106			.2789		1034					
11			.3030		1109			.3061		1040					
12								.3334		1045					
13								.3606		1049					
14								.3878		1053					
15								.4150		1055					
Gauge No. 195					Depth 3671'			Clock No. 11647			12 hour				
0	.0000	33	.0000		44	.0000	65	.0000		134					
1	.0276	33*	.0270		952	.1347	68	.3035		880**					
2	.0621	39	.0540		1013	.2693	82	.0603		933					
3	.0966	39	.0810		1043	.4040	95	.0872		964					
4	.1310	40	.1080		1063	.5387	109	.1140		982					
5	.1655	42	.1350		1076	.6733	121	.1408		997					
6	.2000	44	.1620		1086	.8080	134	.1676		1009					
7			.1890		1096			.1944		1019					
8			.2160		1101			.2213		1027					
9			.2430		1106			.2481		1034					
10			.2700		1110			.2749		1042					
11			.2970		1114			.3017		1046					
12								.3285		1051					
13								.3554		1055					
14								.3822		1060					
15								.4090		1063					
Reading Interval	5		4			20		4							Minutes

REMARKS: *Interval = 4 minutes **Interval = 5 minutes

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SPECIAL PRESSURE DATA

TICKET NO. 135346

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	3500'
Water Cushion Valve				
Drill Pipe	4½"	3.826"	2700'	
Drill Collars	4.5" WP	2.764"	921'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6.05'	3622'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	3628'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.75"	4'	3633'
Hydraulic Jar				
VR Safety Joint	5"	1"	2.85'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	3644'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	3650'
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"	19'	
Blanked-Off B.T. Running Case	5"	2.75"	4'	3671'
Total Depth				3675'

EQUIPMENT DATA


135346-317

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 8.8 vis 40 sec. cp

Date 2-22-77 Ticket Number 135347
Kind of Job OPEN HOLE Halliburton District HAYS
Tester MR. GARRISON Witness BOB LEWELLYN
Drilling Contractor DNB DRILLING # 2 DR

EQUIPMENT & HOLE DATA

Formation Tested Kansas City
Elevation 2548' KB Ft.
Net Productive Interval - Ft.
All Depths Measured From Kelly Bushing
Total Depth 3700' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 921' WP I.D. 2.764"
Drill Pipe Length 2734' I.D. 3.826"
Packer Depth(s) 3678-3684' Ft.
Depth Tester Valve 3662' Ft.

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

Recovered 1650 Feet of muddy salt water
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET

*-Time given and recorded does not agree.

TEMPERATURE	Gauge No. 317	Gauge No. 195	Gauge No.	TIME
	Depth: 3667 Ft.	Depth: 3696 Ft.	Depth: Ft.	
Est. 110 °F.	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 2100 A.M. P.M.
	Blanked Off	Blanked Off	Blanked Off	
Actual °F.	Pressures	Pressures	Pressures	Opened Bypass 2400 A.M. P.M.

	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		1704	1761	1717				
First Period Flow Initial		14	21.0	20			———	———
First Period Flow Final		395	387.1	377			30	29
First Period Closed in		1061	1062.5	1055			30	30
Second Period Flow Initial		403	387.1	407			———	———
Second Period Flow Final		745	740.7	739			60	76 *
Second Period Closed in		1049	1062.5	1043			60	60
Third Period Flow Initial							———	———
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic		1682	1740.1	1698			———	———

Legal Location Sec. - Twp. - Rng. 19-15S-29W
Lease Name
Well No.
Test No.
Field Area HOOT-OWL
Meo. From Tester Valve
Tested Interval
County GOVE
State KANSAS
Lease Owner/Company Name

FORM 181-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 13534

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
1800					Time called out, ready now
1930					On location, rig had just finished
					pulling drill pipe for DST # 2
1940					Picked up and made up tool
1955					Tool through table
2000					Rig started drill pipe
2057					Tool on bottom
2100					Opened tool with a weak to a strong
					blow in 5 minutes.
2130					Closed tool
2200					Opened tool with a strong blow, through
					out.
2300					Closed tool
2400					Tool off bottom
0230					Tool back through table
0300					Broke down tool and laid on walk
0330					Read charts
0330					Job completed
					(Tried to reverse fluid out into pit,
					but could not get to go.

FORM 192-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No.	317		Depth	3667'		Clock No.	11657		12 hour	Ticket No.	135347			
	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	14	.000		395	.000	403	.000		745					
1	.0270	81*	.0135		947	.1063	514**	.0269		975					
2	.0608	152	.0271		978	.1861	574	.0537		995					
3	.0946	219	.0406		997	.2658	624	.0806		1006					
4	.1284	286	.0541		1010	.3455	670	.1075		1014					
5	.1622	342	.0677		1020	.4253	711	.1344		1020					
6	.1960	395	.0812		1028	.5050	745	.1612		1025					
7			.0947		1034			.1881		1029					
8			.1082		1040			.2150		1032					
9			.1218		1043			.2418		1035					
10			.1353		1048			.2687		1038					
11			.1488		1051			.2956		1042					
12			.1624		1054			.3224		1044					
13			.1759		1056			.3493		1045					
14			.1894		1060			.3762		1048					
15			.2030		1061			.4030		1049					
Gauge No.	195		Depth	3696'		Clock No.	11647		hour	12					
0	.000	20	.000		377	.000	407	.000		739					
1	.0276	64*	.0139		919	.1095	501**	.0269		966					
2	.0621	135	.0279		958	.1916	562	.0539		989					
3	.0966	200	.0418		982	.2737	614	.0808		1005					
4	.1310	262	.0557		999	.3558	658	.1077		1010					
5	.1655	322	.0697		1010	.4379	697	.1347		1017					
6	.2000	377	.0836		1018	.5200	739	.1616		1020					
7			.0975		1025			.1885		1024					
8			.1114		1032			.2154		1027					
9			.1254		1038			.2424		1030					
10			.1393		1042			.2693		1033					
11			.1532		1046			.2962		1035					
12			.1672		1049			.3232		1038					
13			.1811		1051			.3501		1040					
14			.1950		1054			.3770		1041					
15			.2090		1055			.4040		1043					
Reading Interval	5		2			12		4							Minutes

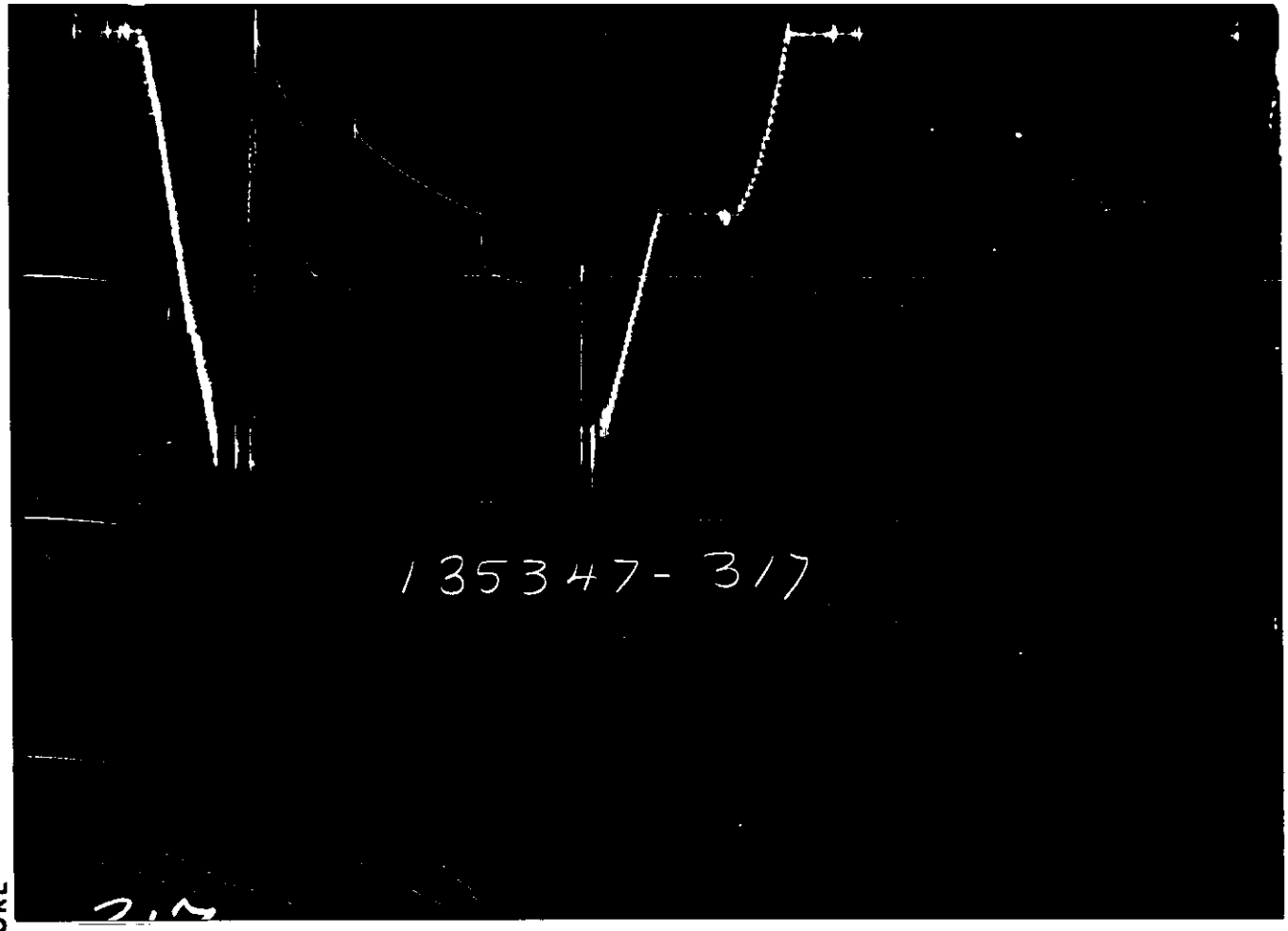
REMARKS: *-4 minutes **-16 minutes.

SPECIAL PRESSURE DATA

TICKET NO. 135347

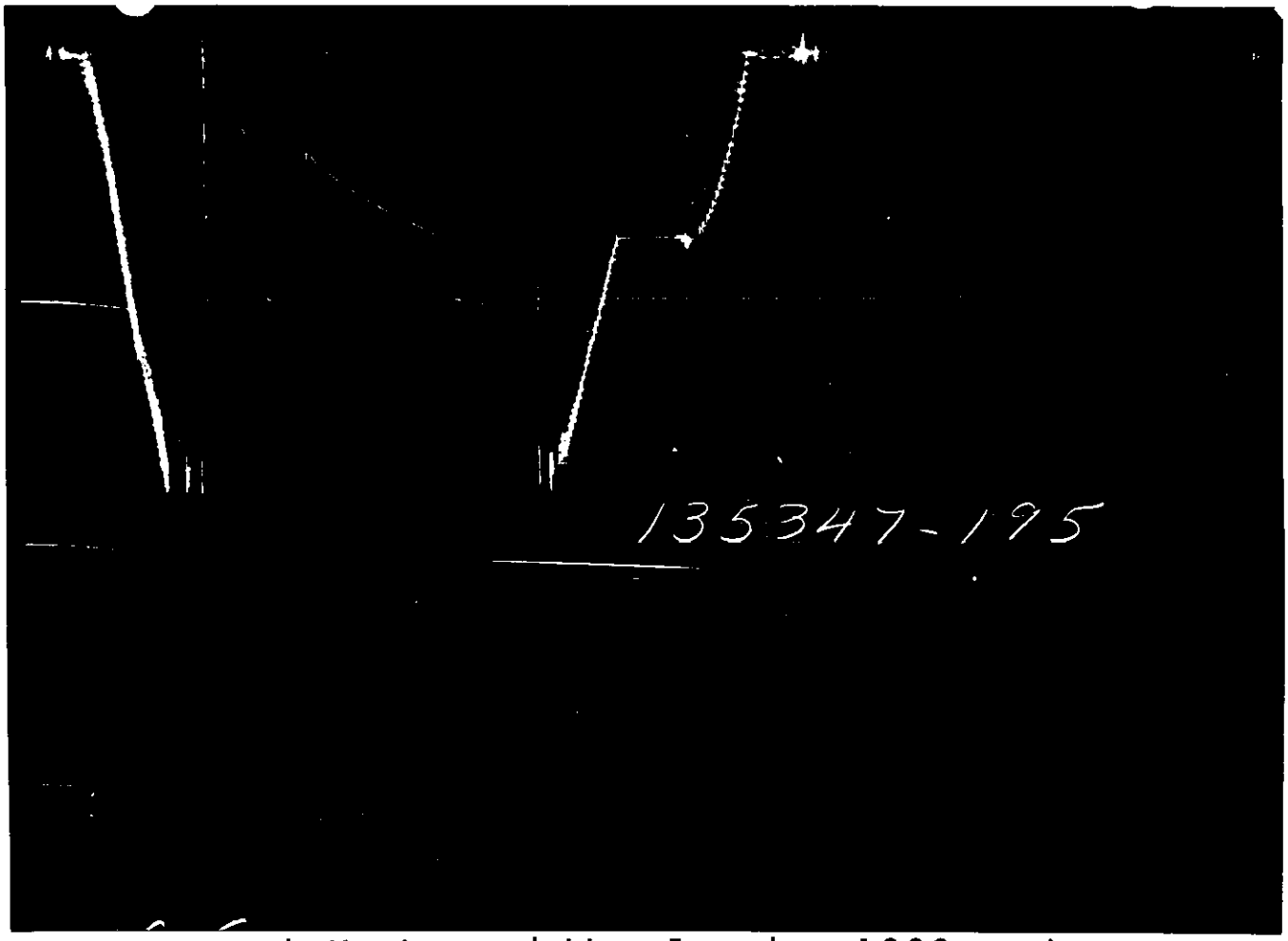
	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	3536'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	2734'	
Drill Collars	4.5"	2.764"	921' WP	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	6.05'	3656'
Dual CIP Sampler				
Hydro-Spring Tester	5.0"	.75"	5.00'	3662'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.0"	3.75"	4.00'	3667'
Hydraulic Jar				
VR Safety Joint	5.0"	1.00"	2.85'	
Pressure Equalizing Crossover				
Packer Assembly	6.75'	1.53"	5.85'	3678'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	3684'
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"	10.00'	
Blanked-Off B.T. Running Case	5.0"	2.75'	4.00'	3696'
Total Depth				3700'

EQUIPMENT DATA



PRESSURE

TIME



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

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 8.9 vis 44 sec

Date 2-24-77 Ticket Number 135348
Kind of Job OPEN HOLE TEST Halliburton District HAYS
Tester MR. GARRISON Witness MR. LEWELLYN
Drilling Contractor DNB DRILLING COMPANY PW

EQUIPMENT & HOLE DATA

Formation Tested Kansas City
Elevation 2548' K.B. Ft.
Net Productive Interval _____ Ft.
All Depths Measured From Kelly Bushing
Total Depth 3848' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 921' WP I.D. 2.764" WP
Drill Pipe Length 2828' I.D. 3.826"
Packer Depth(s) 3772' - 3778' Ft.
Depth Tester Valve 3756' Ft.

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

Recovered 2440 Feet of muddy saltwater.
Recovered _____ Feet of _____
Recovered _____ Feet of _____
Recovered _____ Feet of _____
Recovered _____ Feet of _____

Remarks SEE PRODUCTION TEST DATA SHEET.....

Meas. From Tester Valve

TEMPERATURE	Gauge No. 317	Gauge No. 195	Gauge No.	TIME
	Depth: 3761 Ft.	Depth: 3844 Ft.	Depth: Ft.	
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 0530 A.M. P.M.
Est. °F.	Blanked Off No	Blanked Off Yes	Blanked Off	
3843' @ Actual 116°F.	Pressures	Pressures	Pressures	Opened Bypass 0830 A.M. P.M.

	Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		1787	1834	1815				
First Period Flow Initial		193	283	288			———	———
First Period Flow Final		1060	1063	1075			30	30
First Period Closed in		1152	1167	1173			30	29
Second Period Flow Initial		1069	1125	1142			———	———
Second Period Flow Final		1162	1167	1183			60	60
Second Period Closed in		1172	1177	1192			60	62
Third Period Flow Initial							———	———
Third Period Flow Final								
Third Period Closed in								
Final Hydrostatic		1775	1813	1815			———	———

Legal Location Sec. - Twp. - Rng. 19 - 15 S - 29 W
Lease Name
Well No.
Test No.
Tested Interval
Field Area HOOT - OWL
County GOVE
State KANSAS
Lease Owner/Company Name

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. 135348

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
0100					Time called out. Ready now.
0230					On location. Rig pulled drill pipe.
0330					Picked up and made up tools.
0400					Tools through table.
0405					Rig started drill pipe.
0527					Tools on bottom.
0530					Opened tool with a strong blow,
					throughout.
0600					Closed tool.
0630					Reopened tool with a strong blow, that
					slowly died down to a fair blow.
0730					Closed tool.
0830					Tool off bottom.
1000					Tool back through table.
1030					Broke down tools and read charts.
1100					Job completed.
					(Reversed out fluid).

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No.	317		Depth	3761'		Clock No.	11657		12 hour	Ticket No.	135348			
	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	193	.000		1060	.000	1069	.000		1162					
1	.0348	556	.0068*		1115	.0680	1121	.0550**		1165					
2	.0697	725	.0204		1124	.1360	1142	.0962		1166					
3	.1045	855	.0340		1129	.2040	1151	.1374		1167					
4	.1393	949	.0476		1132	.2720	1156	.1787		1168					
5	.1742	1016	.0612		1135	.3400	1159	.2199		1168					
6	.2090	1060	.0747		1138	.4080	1162	.2611		1169					
7			.0883		1140			.3024		1170					
8			.1019		1142			.3436		1170					
9			.1155		1144			.3848		1172					
10			.1291		1146			.4260		1172					
11			.1427		1147										
12			.1563		1148										
13			.1699		1150										
14			.1835		1151										
15			.1970		1152										
Gauge No.	195		Depth	3844'		Clock No.	11647		12 hour						
0	.000	288	.000		1075	.000	1142	.000		1183					
1	.0338	583	.0067*		1129	.0672	1148	.0538**		1185					
2	.0677	735	.0201		1143	.1343	1164	.0942		1185					
3	.1015	861	.0335		1149	.2015	1173	.1345		1190					
4	.1353	960	.0468		1153	.2687	1176	.1749		1191					
5	.1692	1029	.0602		1156	.3359	1181	.2152		1191					
6	.2030	1075	.0736		1159	.4030	1183	.2556		1191					
7			.0870		1163			.2959		1191					
8			.1004		1165			.3363		1192					
9			.1137		1167			.3766		1192					
10			.1271		1168			.4170		1192					
11			.1405		1160										
12			.1539		1171										
13			.1673		1172										
14			.1806		1173										
15			.1940		1173										
Reading Interval	5		2			10		6							Minutes

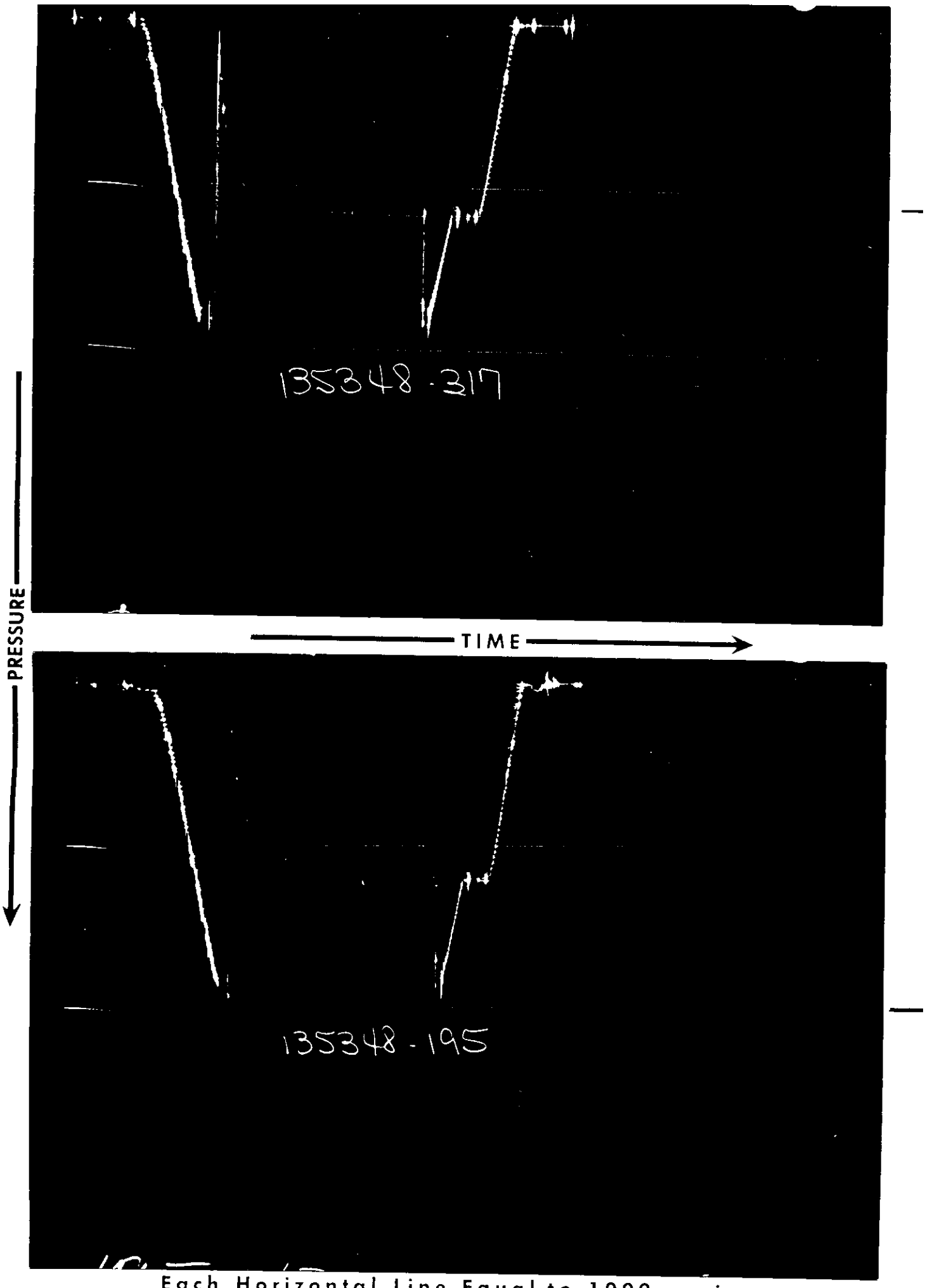
REMARKS: * = 1 minute ** = 8 minutes

9

SPECIAL PRESSURE DATA

TICKET NO. 135348

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	3627'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	2828'	
Drill Collars ... Weight Pipe ...	4.5"	2.764"	921'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	6.05'	3750'
Dual CIP Sampler				
Hydro-Spring Tester	5.0"	.75"	5.00'	3756'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.0"	3.75"	4.0'	3761'
Hydraulic Jar				
VR Safety Joint	5.0"	1.00"	2.85'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	3772'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	3778'
Flush Joint Anchor ... & C.O. ...	5.0"	3.84"	62'	
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"	1.50'	3843'
Blanked-Off B.T. Running Case	5.0"	2.75"	4.00'	3844'
Total Depth				3848'



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

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 28 ° 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 9.0 vis 40 sec

Date 2-25-77 Ticket Number 183096
Kind of Job OPEN HOLE Halliburton District HAYS
Tester C.P. HAMMONDS Witness BOB LEWELLYN
Drilling Contractor D N B DRILLING COMPANY SM

EQUIPMENT & HOLE DATA

Formation Tested Marmaton
Elevation 2548' Kelly bushing Ft.
Net Productive Interval 9' Ft.
All Depths Measured From Kelly bushing
Total Depth 4065' Ft.
Main Hole/Casing Size 7 7/8" 8 5/8" csg. surf.
Drill Collar Length 861' I.D. 2.764" FW
Drill Pipe Length 3050' I.D. 3.826"
Packer Depth(s) 3934-3940' Ft.
Depth Tester Valve 3922' Ft.

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

Recovered 190 Feet of gas in pipe
Recovered 93 Feet of clean gassy oil
Recovered 93 Feet of heavy oil cut gassy mud
Recovered 1243 Feet of salt water with oil specks
Recovered Feet of
Remarks SEE PRODUCTION TEST DATA SHEET

Meas. From Tester Valve

TEMPERATURE	Gauge No. 317	Gauge No. 195	Gauge No.	TIME
	Depth: 3923 Ft.	Depth: 4061 Ft.	Depth: Ft.	
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 0825 A.M. P.M.
Est. °F.	Blanked Off no	Blanked Off yes	Blanked Off	
4060 Actual 121 °F.	Pressures	Pressures	Pressures	Opened Bypass 1125 A.M. P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			1872	1959	1950				
First Period	Flow Initial		19	125	129			———	———
	Flow Final		307	345	342			30	30
	Closed in		1085	1135	1131			30	30
Second Period	Flow Initial		319	418	419			———	———
	Flow Final		593	637	632			60	61
	Closed in		1085	1125	1153			60	59
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic			1862	1938	1938			———	———

Legal Location Sec. - Twp. - Rng. 19-15-29
Lease Name
Well No.
Test No.
Field Area HOOT - OWL
Tested Interval
County GOVE
State KANSAS
Lease Owner/Company Name

FORM 161-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

Casing perfs._____ Bottom choke_____ Surf. temp_____ °F Ticket No. 183096

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
0420					Called out, ready now
0550					On location, rig pulled drill pipe
					for DST # 4
0620					Picked up and made up tools
0653					Started tools in hole
0710					Rig started drill pipe in hole
0822					Tool on bottom
0825					Opened tool with a weak to strong
					blow in 5 minutes.
0855					Closed tool
0925					Opened tool with a weak to strong blo
					in 5 minutes.
1025					Closed tool
1125					Tool off bottom, closed bypass
1230					Pulled to fluid, 1410' of fluid
					oil and water, dumped water
1335					Tool back thru table
1345					Broke tools down and laid on
					catwalk, read charts
1440					Job complete

Gauge No.	317	Depth	3923'	Clock No.	11657	12 hour	Ticket No.	183096	

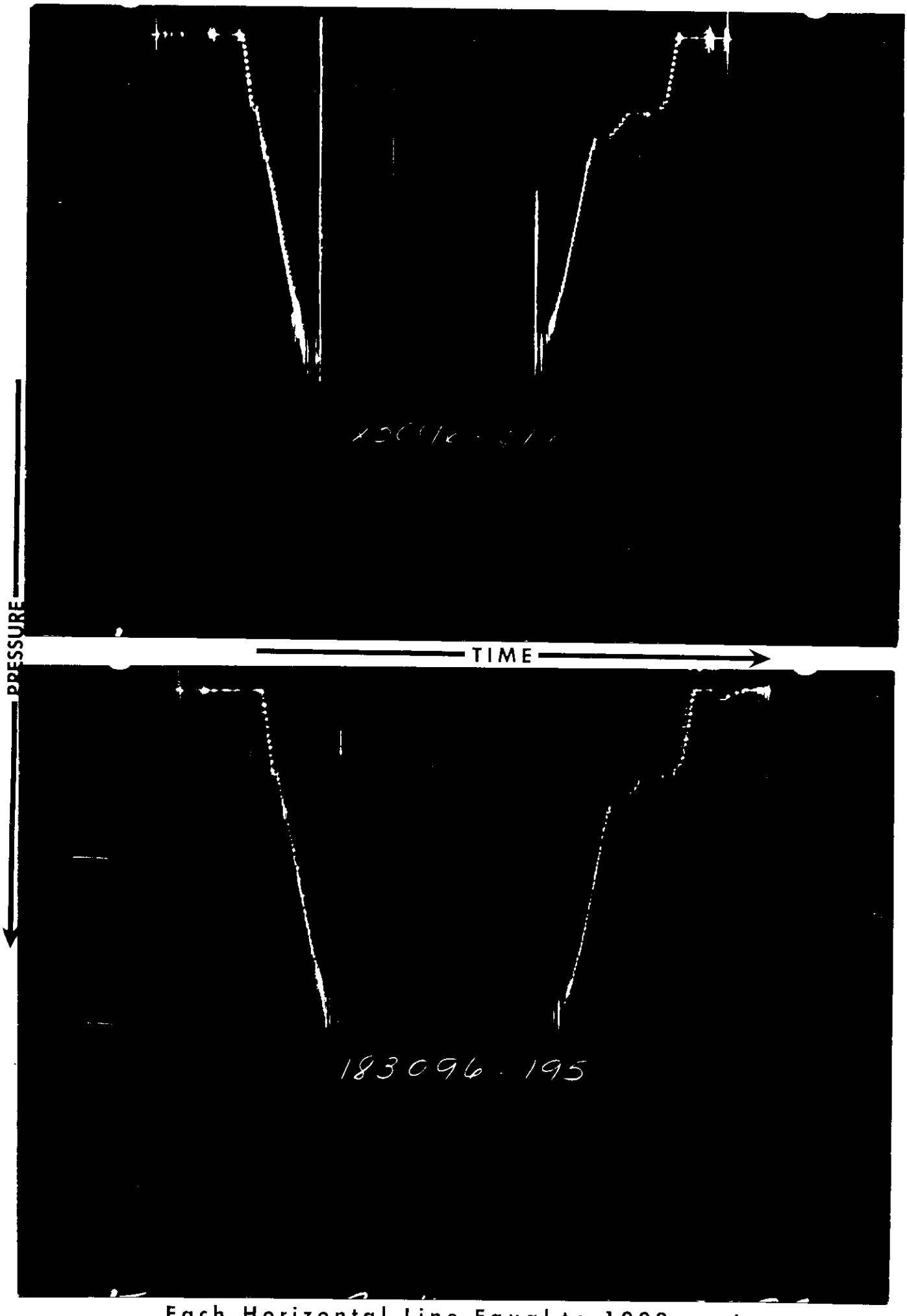
	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.0000	19	.0000		307	.0000	319	.0000		593					
1	.0352	80	.0141		1031	.0763*	399	.0209**		1035					
2	.0703	131	.0283		1048	.1456	442	.0487		1051					
3	.1055	179	.0424		1057	.2150	482	.0765		1058					
4	.1407	224	.0565		1063	.2843	523	.1043		1063					
5	.1759	266	.0707		1068	.3537	559	.1321		1068					
6	.2110	307	.0848		1071	.4230	593	.1599		1071					
7			.0989		1074			.1877		1074					
8			.1130		1076			.2155		1075					
9			.1272		1078			.2433		1078					
10			.1413		1080			.2711		1079					
11			.1554		1081			.2989		1080					
12			.1696		1082			.3267		1082					
13			.1837		1083			.3545		1083					
14			.1978		1084			.3823		1084					
15			.2120		1085			.4100		1085					

Gauge No.	195		Depth	4061'		Clock No.	11647	12 hour						
0	.0000	129	.0000		342	.0000	419	.0000		632					
1	.0345	132	.0139		1063	.0750*	439	.0205**		1070					
2	.0690	165	.0279		1084	.1432	480	.0479		1096					
3	.1035	215	.0418		1098	.2114	523	.0753		1106					
4	.1380	260	.0557		1103	.2796	560	.1027		1113					
5	.1725	302	.0697		1110	.3478	598	.1301		1115					
6	.2070	342	.0836		1115	.4160	632	.1575		1117					
7			.0975		1118			.1849		1120					
8			.1114		1121			.2123		1123					
9			.1254		1123			.2397		1125					
10			.1393		1126			.2671		1126					
11			.1532		1127			.2944		1128					
12			.1672		1128			.3218		1129					
13			.1811		1129			.3492		1129					
14			.1950		1130			.3766		1132-Q					
15			.2090		1131			.4040		1153-Q					
Reading Interval		5		2			10		4						Minutes

REMARKS: *First interval is equal to 11 minutes. ** = 3 minutes Q = questionable.

TICKET NO. 183096

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1'	3786'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3050'	
Drill Collars	4.5"	2.764"	861' Flex wt.	
~~Handling Sub & Choke Assembly~~ Cross over	6"	2.75"	.50'	
Dual CIP Valve	5"	.87"	6'	3916'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	3922'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	3923'
Hydraulic Jar				
VR Safety Joint	5"	1"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	3934'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	3940'
Flush Joint Anchor	5"	3.84"	15'	
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~~ - Weight Pipe	4.5"	2.764"	93'	
Change over	6"	2.75"	2'	
Flush Joint Anchor	5"	3.84"	3'	
Temp. case	5"	3"	1.50'	4060'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4061'
Total Depth				4065'



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

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 9.0 vis 35 Sec. ~~cp~~

Date 2-25-77 Ticket Number 183097
Kind of Job STRADDLE OPEN HOLE TEST Halliburton District HAYS
Tester C.P. HAMMONDS Witness BOB LEWELLYN
Drilling Contractor DNB DRILLING COMPANY PW

EQUIPMENT & HOLE DATA

Formation Tested Marmaton
Elevation 2548' K.B. Ft.
Net Productive Interval 9' Ft.
All Depths Measured From Kelly Bushing
Total Depth 4065' Ft.
Main Hole/Casing Size 7 7/8" Hole - 8 5/8" Casing
Drill Collar Length 922' WP I.D. 2.764" WP
Drill Pipe Length 2995' I.D. 3.826"
Packer Depth(s) 3936' - 3997' Ft.
Depth Tester Valve 3924' Ft.
Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve
Surface Choke 1/4" Bottom Choke 3/4"

Recovered 216 Feet of oil cut watery mud.
Recovered 310 Feet of muddy saltwater.
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks Charts indicate possible slight plugging during early part of flow period. Tool failed to open for final flow period.

SEE PRODUCTION TEST DATA SHEET.....

TEMPERATURE	Gauge No. 317	Gauge No. 195	Gauge No.	TIME
	Depth: 3989 Ft.	Depth: 4061 Ft.	Depth: Ft.	
Est. °F.	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 1940 A.M. P.M.
	Blanked Off no	Blanked Off yes	Blanked Off	Opened Bypass A.M. P.M.
Actual 127 °F.	Pressures	Pressures	Pressures	

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		1930	1912		1927				
First Period	Flow Initial	31	37					———	———
	Flow Final	300	295	HYDROSTATIC				30	29
	Closed in	1117	1117	RELEASE:	1702			30	31
Second Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic		1867	1864		1892			———	———

Legal Location Sec. - Twp. - Rng. 19 - 15 - 29
Lease Name [illegible]
Well No. 1
Test No. 5
Tested Interval 3936' - 3997'
Field Area HOOT-OWL
Meas. From Tester Valve
County GOVE
State KANSAS
Lease Owner/Company Name BEREN CORPORATION

FORM 181-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No. 183097

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
					On location from previous DST.
1720					Picked up and made up tool for a
					straddle DST #5.
1830					Started tool & drill pipe in hole.
1937					Tool on bottom.
1940					Opened tool with a weak to strong
					blow in 10 minutes.
2010					Closed tool.
2040					Reopened tool with a very weak blow
					for 15 minutes.
2055					Closed bypass to flush tool.
2057					Reopened tool with a very weak blow
					throughout opening.
2142					Closed tool.
2242					Tool off bottom.
0045					Pulled to fluid.
					Tool back through table.
0100					Broke down tool and left on the
					catwalk.
0145					Read charts for pressures and recorded
					on tickets.
0200					Job completed.

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

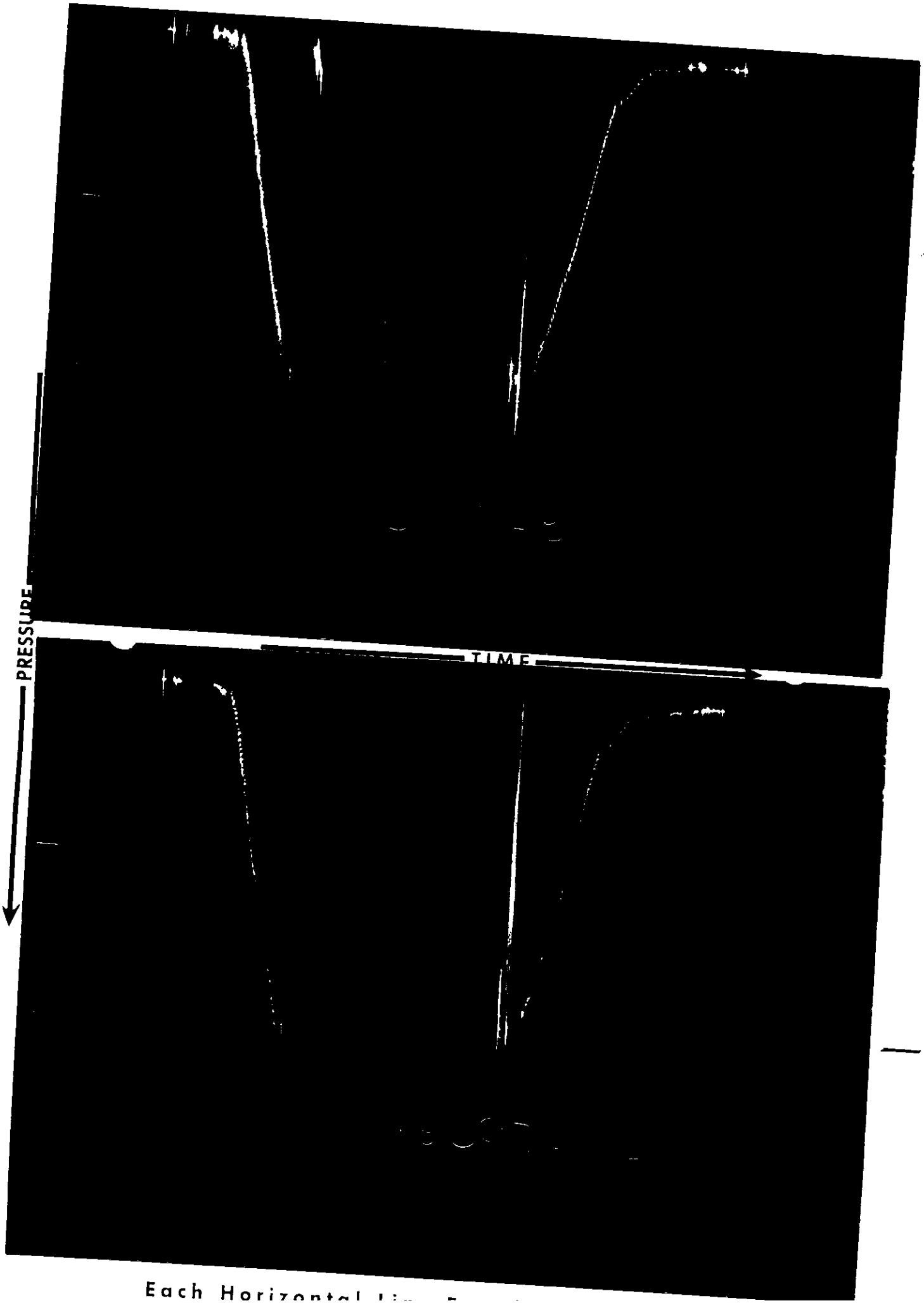
Gauge No. 317			Depth 3989'			Clock No. 11657			12 hour	Ticket No. 183097				
	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	Log $\frac{t+\theta}{\theta}$	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	37	.000		295										
1	.0275*	P	.0202**		1057										
2	.0618	158	.0337		1077										
3	.0961	188	.0472		1087										
4	.1304	232	.0607		1094										
5	.1647	263	.0742		1100										
6	.1990	295	.0876		1103										
7			.1011		1106										
8			.1146		1108										
9			.1281		1110										
10			.1416		1112										
11			.1550		1113										
12			.1685		1114										
13			.1820		1115										
14			.1955		1116										
15			.2090		1117										

Gauge No. 195			Depth 4061'			Clock No. 11647			12 hour					
0														
1														
2														
3			HYDROSTATIC RELEASE:			1702								
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
Reading Interval	5		2											Minutes

REMARKS: * = 4 minutes ** = 3 minutes
P = Plugging

TICKET NO. 183097

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	5.75"	2.75"	1.00'	3792'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	2995'	
~~Drill Collars~~ Weight Pipe	4.5"	2.764"	922'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	6.00'	3922'
Duol CIP Sampler				
Hydro-Spring Tester	5.0"	.75"	5.00'	3924'
Multiple CIP Sampler				
Extension Joint				
AP Running Case				
Hydraulic Jar				
VR Safety Joint	5.0"	1.00"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	3936'
Distributor				
Change Over	6.0"	2.75"	1.00'	
Drill Pipe	4.5"	3.826"	31.50'	
Packer Assembly				
Change Over	6.0"	2.75"	1.00'	
Flush Joint Anchor	5.00"	3.84"	16.00'	
Pressure Equalizing Tube				
~~Blanked-Off B.T.~~ Running Case AP	5.0"	3.06"	4.00'	3989'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	3997'
Anchor Pipe Safety Joint				
~~Side Wall Anchor~~ Blank Off	5.0"		.50'	
Change Over	6.00"	2.75"	2.00'	
~~Drill Collars~~ Weight Pipe	4.5"	2.764"	32.00'	
Change Over	6.00"	2.75"	2.00'	
Flush Joint Anchor	5.0"	3.84"	26.00'	
Blanked-Off B.T. Running Case	5.0"	2.75"	4.00'	4061'
Total Depth				4065'



Each Horizontal Line

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 9.0 vis 40 sec. cp

Date 2-26-77 Ticket Number 183098
Kind of Job OPEN HOLE Halliburton District HAYS
Tester C. P. HAMMONDS Witness BOB LEWELLYN
Drilling Contractor DNB DRILLING COMPANY DR

EQUIPMENT & HOLE DATA

Formation Tested Pawnee
Elevation 2548' KB Ft.
Net Productive Interval 0 Ft.
All Depths Measured From Kelly Bushing
Total Depth 4120' Ft.
Main Hole/Casing Size 7 7/8" 8 5/8" Csg.
Drill Collar Length 954' FW I.D. 2.764"
Drill Pipe Length 3075' I.D. 3.826"
Packer Depth(s) 4052-4058' Ft.
Depth Tester Valve 4036' Ft.

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

Recovered 20 Feet of drilling mud
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Meas. From Tester Valve

Remarks SEE PRODUCTION TEST DATA SHEET

TEMPERATURE	Gauge No. 317 Depth: 4041 Ft.	Gauge No. 195 Depth: 4116 Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 14:10 A.M. P.M.
Est. °F.	Blanked Off No	Blanked Off Yes	Blanked Off	
4115'				Opened A.M.
Actual 119 °F.	Pressures	Pressures	Pressures	Bypass 16:40 P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			1929	1980	1966				
First Period	Flow Initial		10	52	60			———	———
	Flow Final		14	73	58			30	29
	Closed in		893	917	898			45	44
Second Period	Flow Initial		25	104	106			———	———
	Flow Final		25	94	83			30	31
	Closed in		357	355	353			45	46
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic			1935	1980	1969			———	———

Legal Location Sec. - Twp. - Rng. 19-15-29
Lease Name
Well No.
Test No.
Field Area HOOT-OWL
Tested Interval
County GOVE
State KANSAS
Lease Owner/Company Name

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 183098

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
1050					Called out, ready now
1225					On location, rig pulling drill pipe
					for DST # 6
1245					Picked up and made up tool
1303					Started tool in hole
1407					Tool on bottom
1410					Opened tool with a very weak blow
1440					Closed tool
1525					Opened tool with no blow
1555					Closed tool
1640					Tool off bottom
1800					Tool back through table
1810					Broke down tool and left on the cat wa
1845					Read charts for pressures and recorded
					on tickets.
1900					Job completed

PRODUCTION TEST DATA

Gauge No.	317	Depth	4041'	Clock No.	11657	12 hour	Ticket No.	183098

	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	10	.000		14	.000	25	.000		25					
1	.203	14	.0281		33	.213	25	.319		357					
2			.0562		62										
3			.0843		113										
4			.1124		198										
5			.1405		342										
6			.1685		487										
7			.1966		610										
8			.2247		714										
9			.2528		793										
10			.2801		854										
11			.3090		893										
12															
13															
14															
15															

Gauge No.	195	Depth	4116'	Clock No.	11647	hour	12

0	.000	60	.000		58	.000	106	.000		83					
1	.228	58	.0256		66	.211	83	.312		353					
2			.0507		91										
3			.0761		151										
4			.1014		292										
5			.1268		408										
6			.1522		532										
7			.1775		639										
8			.2029		723										
9			.2282		797										
10			.2536		865										
11			.2790		898										
12															
13															
14															
15															

Reading Interval 4 Minutes

REMARKS:

SPECIAL PRESSURE DATA

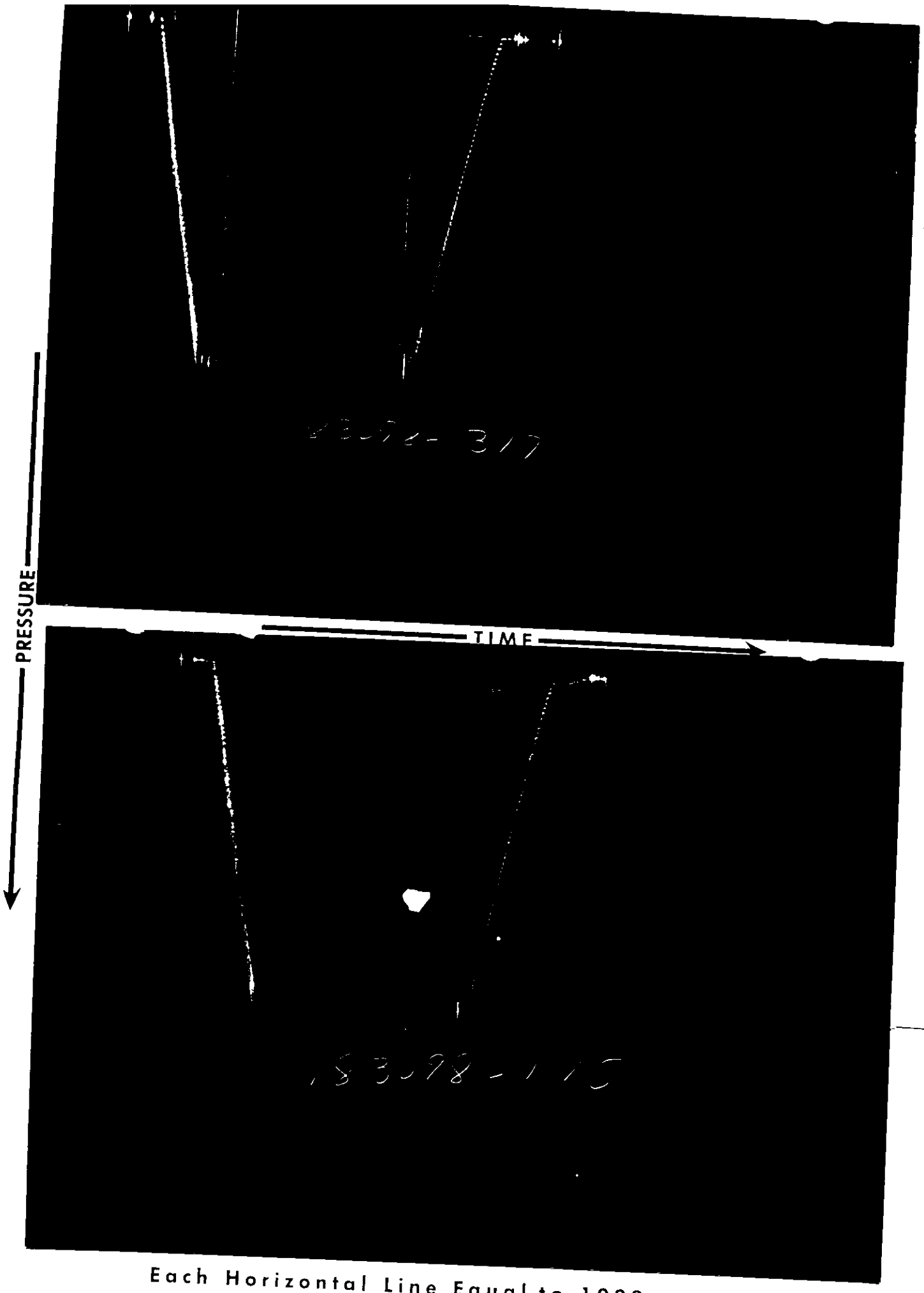
TICKET NO. 183098

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6.00"	1.00'	3904'	
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3075'	
Drill Collars	4.5"	2.764"	954' FW	
Handling Sub & Choke Assembly				
Dual CIP Valve	5.0"	.87"	6.00'	4034'
Dual CIP Sampler				
Hydro-Spring Tester	5.0"	.75"	5.00'	4036'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5.0"	3.06"	4.00'	4041'
Hydraulic Jar				
VR Safety Joint	5.0"	1.00"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4052'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	4058'
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				
	4.5"	3.826"	31.50' Drill pipe	
Drill Collars				
Flush Joint Anchor	5.0"	3.84'	23.00'	
	5.0"	3.00"	1.50'	4115' Temp. case
Blanked-Off B.T. Running Case	5.0"	2.75"	4.00'	4116'
Total Depth				4120'

FORM 187-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

LITTLE'S 96676 75C 8/74



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

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 26 ° 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 9.0 vis 40 SEC.

Date 2-27-77 Ticket Number 183099
Kind of Job OPEN HOLE TEST Halliburton District HAYS
Tester C. P. HAMMONDS Witness BOB LEWELLYN
Drilling Contractor DNB DRILLING COMPANY TH S

EQUIPMENT & HOLE DATA

Formation Tested Ft. Scott
Elevation 2548' KB Ft.
Net Productive Interval Ft.
All Depths Measured From Kelly Bushing
Total Depth 4154' Ft.
Main Hole/Casing Size 7 7/8" 8 5/8" csg. surf
Drill Collar Length 954' FW I.D. 2.764" FW
Drill Pipe Length 3126' I.D. 3.826"
Packer Depth(s) 4102' - 4108' Ft.
Depth Tester Valve 4086' Ft.

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

Recovered 410 Feet of clean gassey oil.
Recovered 260 Feet of slightly mud cut gassey oil.
Recovered 560 Feet of heavy mud cut gassey oil.
Recovered Feet of
Recovered Feet of

Meas. From Tester Valve

Remarks See Production Test Data Sheet . . .

Q - Questionable . . .

TEMPERATURE	Gauge No. 317	Gauge No. 195	Gauge No.	TIME
	Depth: 4091 Ft.	Depth: 4150 Ft.	Depth: Ft.	
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened A.M.
Est. °F.	Blanked Off NO	Blanked Off YES	Blanked Off	Opened 0425 P.M.
4149				Opened A.M.
Actual 136 °F.	Pressures	Pressures	Pressures	Bypass 0725 P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			1943	1980	1978				
First Period	Flow Initial		27	94	99			———	———
	Flow Final		249	251	263			30	30
	Closed in		1078	1093	1075-Q			30	30
Second Period	Flow Initial		273	324	322			———	———
	Flow Final		478	491	485			60	62
	Closed in		1046	1062	1056-Q			60	66
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic			1918	1980	1968			———	———

Legal Location Sec. - Twp. - Rng. 19 - 15 - 29
Lease Name
Well No.
Test No.
Field Area HOOT-OWL
Tested Interval
County GOVE
State KANSAS
Lease Owner/Company Name

FORM 101-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

Casing perfs.____ Bottom choke____ Surf. temp.____ °F Ticket No. 183099

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
0015					Called out, ready now.
0100					On location, rig pulling drill pipe
					for DST #7.
0255					Picked up and made up tool.
0315					Started tool in hole.
0422					Tool on bottom.
0425					Hydrospring opened with a very strong
					blow in 5 minutes.
0455					Closed tool.
0525					Opened tool with a strong blow
					throughout opening.
0625					Closed tool.
0725					Tool off bottom.
0910					Tool back through table.
0915					Broke tool down and left it on cat
					walk.
0945					Read charts for pressures and recorded
					on tickets.
1000					Job completed.

FORM 182-RI---PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 6/74

Gauge No. 317			Depth 4091			Clock No. 11657			12 hour	Ticket No. 183099				
	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	27	.0000		249	.0000	273	.0000		478					
1	.0345	69	.0136		881	.0830*	325	.0680**		979					
2	.0693	116	.0272		952	.1522	375	.0952		994					
3	.1040	152	.0408		983	.2214	400	.1225		1005					
4	.1386	186	.0544		1006	.2906	430	.1497		1012					
5	.1733	223	.0680		1022	.3598	454	.1769		1019					
6	.2080	249	.0816		1033	.4290	478	.2041		1024					
7			.0952		1042			.2313		1028					
8			.1088		1049			.2585		1031					
9			.1224		1055			.2857		1034					
10			.1360		1060			.3129		1037					
11			.1496		1064			.3401		1041					
12			.1632		1069			.3673		1043					
13			.1768		1072			.3946		1044					
14			.1904		1075			.4218		1045					
15			.2040		1078			.4490		1046					
Gauge No. 195			Depth 4150			Clock No. 11647			12 hour						
0	.0000	99	.0000		263	.0000	322	.0000		485					
1	.0337	101	.0134		879	.0815*	340	.0676**		989					
2	.1673	127	.0268		965	.1494	384	.0946		1006					
3	.1010	166	.0402		998	.2173	413	.1216		1017					
4	.1346	200	.0536		1020	.2852	437	.1487		1026					
5	.1683	231	.0670		1038	.3531	463	.1757		1032					
6	.2020	263	.0804		1049	.4210	485	.2027		1038					
7			.0938		1059			.2298		1042					
8			.1072		1066			.2568		1045					
9			.1206		1072			.2838		1049					
10			.1340		1076			.3108		1051					
11			.1474		1080			.3379		1054					
12			.1608		1083			.3649		1055					
13			.1742		1088			.3919		1057					
14			.1876		1089			.4190		1059					
15			.2010		1075-Q			.4460		1056-Q					
Reading Interval	5		2			10		4							Minutes

REMARKS: * - first interval is equal to 12 minutes, ** - 10 minutes. Q - Questionable.

SPECIAL PRESSURE DATA

TICKET NO. 183099

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	2.75"	1'	3954'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3126'	
~~Drill Collars~~ Flex Weight	4.5"	2.764"	954'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6'	4084'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4086'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	4091'
Hydraulic Jar				
VR Safety Joint	5"	1"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4102'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	4108'
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~~ Drill Pipe	4.5"	3.826"	31'	
Flush Joint Anchor	5"	3.84"	8'	
	5"	3"	1.50'	Temperature Case
Blanked-Off B.T. Running Case	5"	2.75"	4'	4150'
Total Depth				4154'

FORM 167-R1—PRINTED IN U.S.A.

EQUIPMENT DATA

LITTLE'S 96676 75C 8/74


PRESSURE
TIME

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 9.0 vis 40 Sec. cp

Date 2-27-77 Ticket Number 183100
Kind of Job OPEN HOLE Halliburton District HAYS
Tester MR. HAMMONDS Witness MR. LEWELLYN
Drilling Contractor D N B DRILLING COMPANY BC S

EQUIPMENT & HOLE DATA

Formation Tested Cherokee
Elevation 2548' KB Ft.
Net Productive Interval 10' Ft.
All Depths Measured From Kelly Bushing
Total Depth 4216' Ft.
Main Hole/Casing Size 7 7/8" Hole 8 5/8" Casing
Drill Collar Length 954' WP I.D. 2.764"
Drill Pipe Length 3166' I.D. 3.826"
Packer Depth(s) 4142' - 4148' Ft.
Depth Tester Valve 4126' Ft.

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

Recovered 300 Feet of Gas in pipe
Recovered 800 Feet of Clean gassey oil
Recovered 430 Feet of Heavily mud cut gassey oil
Recovered Feet of
Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET.

TEMPERATURE	Gauge No. 317 Depth: 4131' Ft.	Gauge No. 195 Depth: 4212' Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 2010 A.M. P.M.
Est. °F.	Blanked Off No	Blanked Off Yes	Blanked Off	Opened Bypass 2310 A.M. P.M.
4211' Actual 124 °F.	Pressures	Pressures	Pressures	

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			1968	1980	1972				
First Period	Flow Initial		23	73	87			———	———
	Flow Final		249	251	269			30	30
	Closed in		1035	1052	1056			30	30
Second Period	Flow Initial		271	345	333			———	———
	Flow Final		471	491	492			60	60
	Closed in		1005	1000	998-CS			60	60
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic			1944	1980	UTR			———	———

CS = Clock stopped UTR = Unable to read

Legal Location Sec. - Twp. - Rng. 19 - 15 - 29
Lease Name
Well No.
Test No. 2
Field Area HOOT-OWL
Tested Interval
County GOVE
State KANSAS
Lease Owner/Company Name

Meas. From Tester Valve

FORM 181-R1- PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 9667 10M 8/74

C-57

183100

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

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
1615					Called out, ready now
1815					On location, rig pulled drill pipe for
					DST #8
1840					Picked up and made up tool
1900					Started tool in hole
1910					Rig started drill pipe in hole
2007					Tool on bottom
2010					Hydrospring opened with a strong blow
					in 10 minutes and remained throughout
2040					Closed tool
2110					Opened tool with a strong blow throughou
2210					Closed tool
2310					Tool off bottom
0850					Tool back through table, broke tool
					down and left it on catwalk
0900					Read charts and recorded on tickets.
0920					Job completed
					NOTE: Rig had pulled drill pipe to
					fluid at midnight which was very gassey
					oil. Capped drill pipe and left in
					hole until daylight.....

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No. 317			Depth 4131'			Clock No. 11657			12 hour	Ticket No. 183100				
	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	23	.0000		249	.0000	271	.0000		471					
1	.0343	82	.0205		891	.0690	314	.0276		897					
2	.0687	128	.0410		946	.1380	363	.0552		931					
3	.1030	163	.0615		972	.2070	398	.0828		949					
4	.1373	192	.0820		990	.2760	423	.1104		961					
5	.1717	223	.1025		1002	.3450	448	.1380		970					
6	.2060	249	.1230		1011	.4140	471	.1656		977					
7			.1435		1019			.1932		982					
8			.1640		1025			.2208		987					
9			.1845		1030			.2484		991					
10			.2050		1035			.2760		994					
11								.3036		997					
12								.3312		999					
13								.3588		1001					
14								.3864		1003					
15								.4140		1005					
Gauge No. 195					Depth 4212'			Clock No. 11647			12 hour				
0	.0000	87	.0000		269	.0000	333	.0000		492					
1	.0337	105	.0199		909	.0688	342	.0271		914					
2	.0673	149	.0398		958	.1377	377	.0543		949					
3	.1010	184	.0597		986	.2065	417	.0814		968					
4	.1347	210	.0796		1008	.2753	441	.1085		981					
5	.1683	242	.0995		1022	.3442	467	.1357		990					
6	.2020	269	.1194		1032	.4130	492	.1628		997					
7			.1393		1040			(.1670		998)CS*					
8			.1592		1047										
9			.1791		1053										
10			.1990		1056										
11															
12															
13															
14															
15															
Reading Interval	5		3			10		4							Minutes

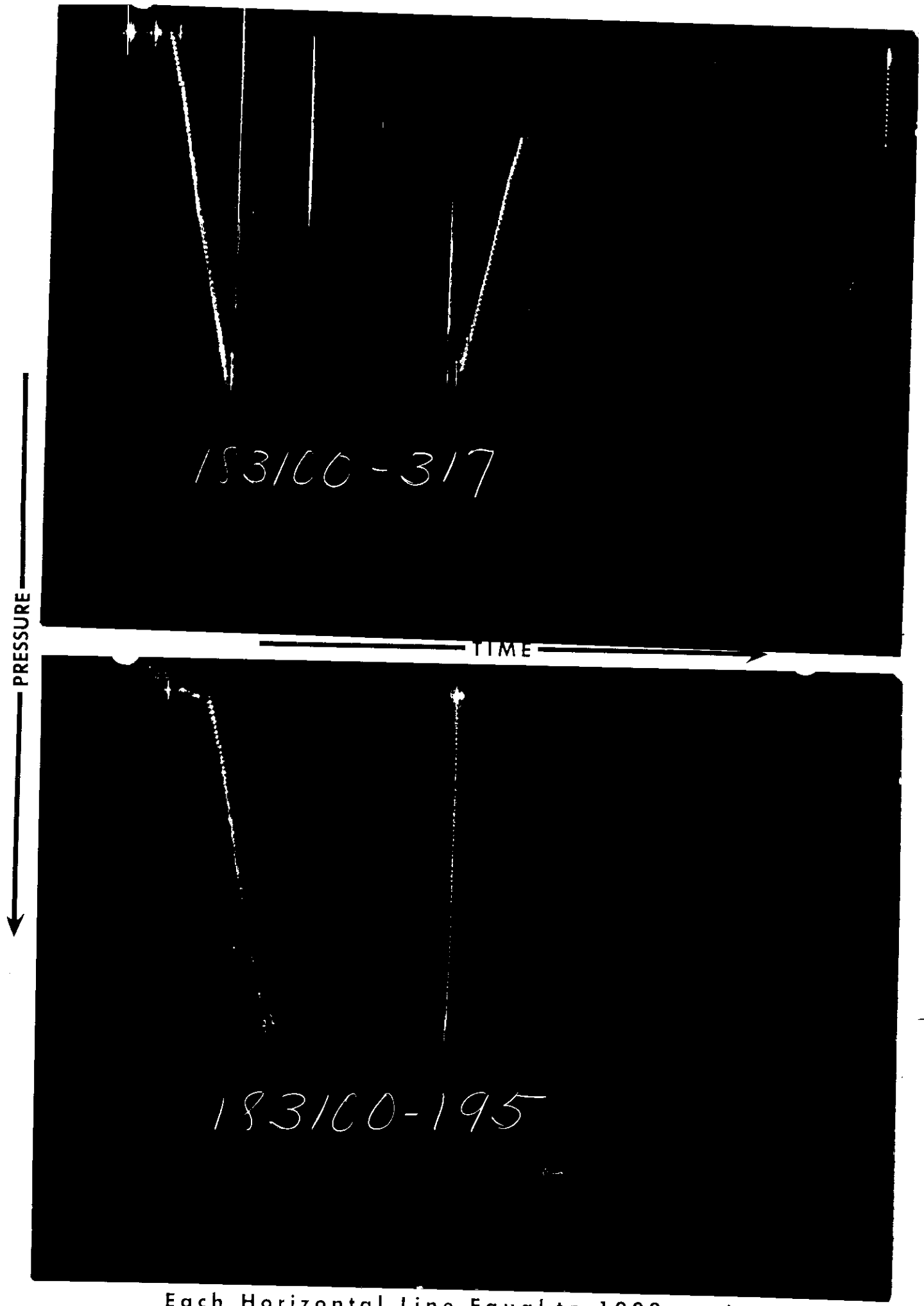
REMARKS: *Interval = 1 minute CS = clock stopped after approximately 25 minutes

SPECIAL PRESSURE DATA

TICKET NO. 183100

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	2.75"	1'	3994'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3166'	
Drill Collars	4.5" WP	2.764"	954'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6'	4124'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4126'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	4'	4131'
Hydraulic Jar				
VR Safety Joint	5"	1"	2.80'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4142'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	4148'
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 pipe	4.5"	3.826"	31.50'	
Drill Collars				
Flush Joint Anchor	5"	3.84"	29'	
HT-500	5"	3"	1.50'	4211'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4212'
Total Depth				4216'

EQUIPMENT DATA



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

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 9.0 vis 56 SEC. xx

Date 2-28-77 Ticket Number 135349
Kind of Job OPEN HOLE TEST Halliburton District HAYS
Tester GARRISON Witness BOB LEWELLYN
Drilling Contractor DNB DRILLING COMPANY #2 TH

EQUIPMENT & HOLE DATA

Formation Tested Mississippi
Elevation 2548' KB 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 921' WP I.D. 2.764" WP
Drill Pipe Length 3268' I.D. 3.826"
Packer Depth(s) 4211' - 4217' Ft.
Depth Tester Valve 4195' Ft.

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

Recovered 2 Feet of slightly oil cut mud.
Recovered _____ Feet of
Recovered _____ Feet of
Recovered _____ Feet of
Recovered _____ Feet of

Remarks See Production Test Data Sheet . . .

Mea. From Tester Valve

TEMPERATURE	Gauge No. 317	Gauge No. 195	Gauge No.	TIME
	Depth: 4200 Ft.	Depth: 4241 Ft.	Depth: Ft.	
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 1900 A.M. P.M.
Est. °F.	Blanked Off NO	Blanked Off YES	Blanked Off	Opened A.M.
4239 Actual 121 °F.	Pressures	Pressures	Pressures	Bypass 2200 P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			1988	2033	2005				
First Period	Flow Initial		8	21	28			———	———
	Flow Final		8	21	29			30	
	Closed in		381	356	369			45	
Second Period	Flow Initial		11	31	40			———	———
	Flow Final		11	31	41			60	
	Closed in		75	63	67			45	
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic			1968	2022	1992			———	———

Legal Location Sec. - Twp. - Rng. 19 - 15 - 29
Lease Name
Well No. 1
Test No. 2
Field Area HOOT-OWL
County GOVE
State KANSAS
Tested Interval 4211' - 4245'
Lease Owner/Company Name BEREN CORPORATION

FORM 181-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 135349

Gas gravity _____ Oil gravity _____ GOR _____

Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F

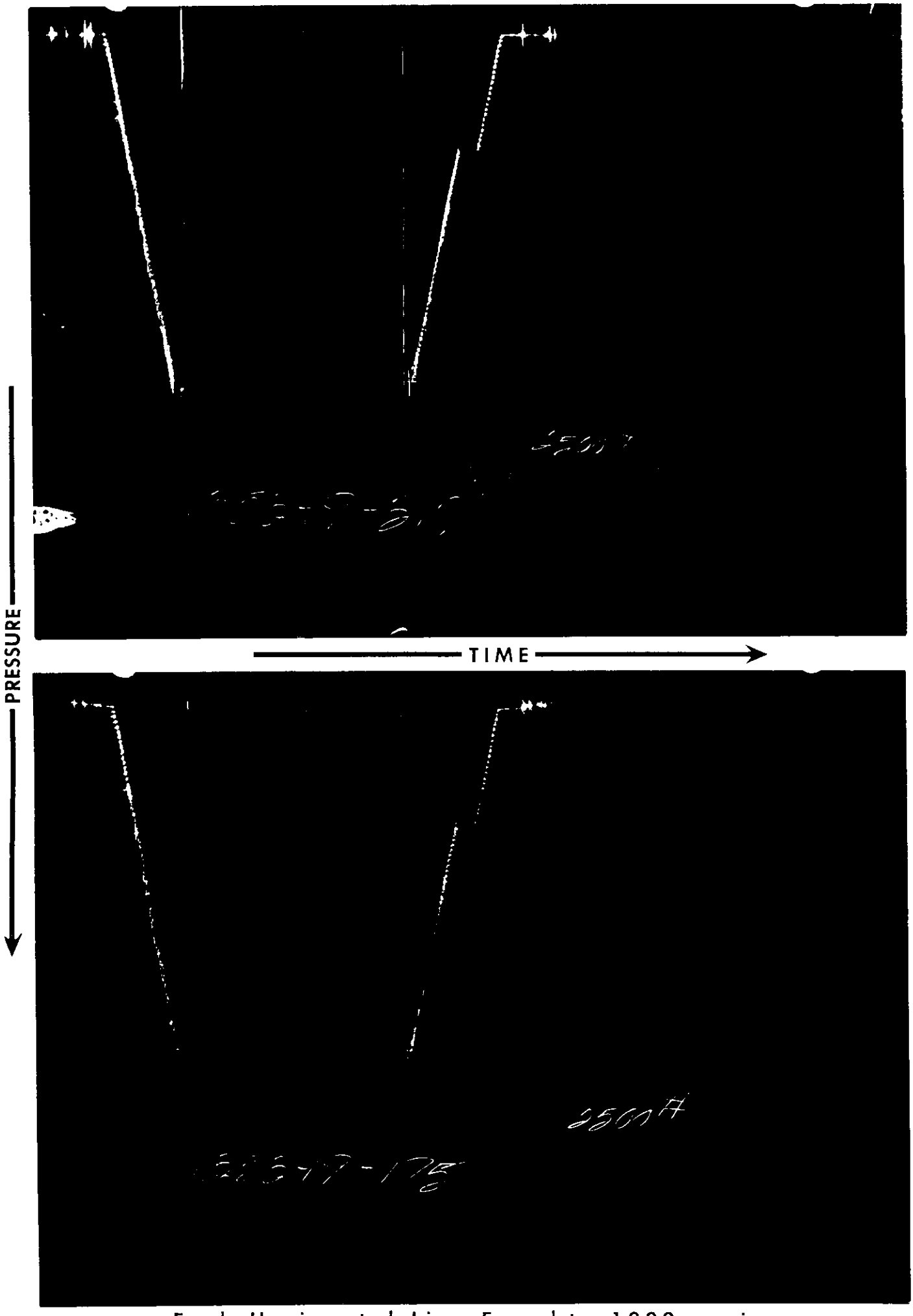
INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED _____

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
1550					Time called out, ready now.
1710					On location, rig pulling drill pipe for DST.
1725					Picked up and made up tool.
1745					Tool through table.
1750					Rig started drill pipe.
1857					Tool on bottom.
1900					Hydrospring opened, weak blow throughout
1930					Closed tool.
2015					Opened tool, very weak blow that died in 35 minutes.
2115					Closed tool.
2200					Tool off bottom.
2330					Tool back through table.
2400					Broke down tool and laid on walk.
0030					Job completed.

TICKET NO. 135349

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub	6"	3"	1'	4060'
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3268'	
~~XXXXXXXX~~ Weight Pipe	4.5"	2.764"	921'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6.05'	4189'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4195'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.75"	4'	4200'
Hydraulic Jar				
VR Safety Joint	5"	1"	2.85'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4211'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	4217'
Flush Joint Anchor	5"	3.84"	20'	
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				
~~XXXXXXXXXXXX~~ Temperature Case	5"	3.75"	1.50'	4239'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4241'
Total Depth				4245'

EQUIPMENT DATA



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

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 9.0 vis 56 sec

Date 3-1-77 Ticket Number 135350
Kind of Job OPEN HOLE Halliburton District HAYS
Tester MR. GARRISON Witness MR. LEWELLYN
Drilling Contractor D N B DRILLING COMPANY SM

EQUIPMENT & HOLE DATA

Formation Tested Mississippi
Elevation 2845' Kelly bushing Ft.
Net Productive Interval - Ft.
All Depths Measured From Kelly bushing
Total Depth 4283' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length WP 921' I.D. 2.764"
Drill Pipe Length 3284' I.D. 3.826"
Packer Depth(s) 4228-4234' Ft.
Depth Tester Valve 4212' Ft.

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

Recovered 30 Feet of drilling mud
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Remarks SEE PRODUCTION TEST DATA SHEET

TEMPERATURE	Gauge No. 317	Gauge No. 195	Gauge No.	TIME
	Depth: 4217 Ft.	Depth: 4279 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 1700 P.M.
4277				Opened 2115 A.M.
Actual 133 °F.	Pressures	Pressures	Pressures	Bypass P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			1990	2106	1997				
First Period	Flow Initial		9	52	62			———	———
	Flow Final		11	52	51			30	31
	Closed in		1019	1021	1004			45	44
Second Period	Flow Initial		19	73	82			———	———
	Flow Final		24	73	65			120	121
	Closed in		930	927	934			60	59
Third Period	Flow Initial							———	———
	Flow Final								
	Closed in								
Final Hydrostatic			1973	2064	1980			———	———

Legal Location Sec. - Twp. - Rng. 19-15-29
Lease Name
Well No.
Test No. 1
Field Area HOOT OWL
Tested Interval
County GOVE
State KANSAS
Lease Owner/Company Name
Meas. From Tester Valve

FORM 181-R1—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 96671 10M 8/74

5

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No. 135350

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
1400					Time called out, ready now, on bank waiting.
1510					On location
1535					Picked up and made up tools
1550					Tools thru table
1555					Rig started drill pipe.
1657					Tool on bottom
1700					Opened tool with a weak blow slowly building.
1730					Closed tool
1815					Opened tool with a weak blow throughou opening.
2015					Closed tool
2115					Tool off bottom
2235					Tool back thru table
2300					Broke down tools & read charts
2330					Job complete.

FORM 182-RI- PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 4-74

Gauge No. 317			Depth 4217'				Clock No. 4205			12 hour	Ticket No. 135350				
	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	9	.0000		11	.0000	19	.0000		24					
1	.1960	11	.0278		34	.1385*	17	.0347**		43					
2			.0556		149	.2704	18	.0763		108					
3			.0835		375	.4023	20	.1178		271					
4			.1113		571	.5342	21	.1594		493					
5			.1391		711	.6661	23	.2010		652					
6			.1669		812	.7980	24	.2426		755					
7			.1947		883			.2842		822					
8			.2226		933			.3258		869					
9			.2504		971			.3674		903					
10			.2782		999-Q			.4090		930					
11			.3060		1019-Q										
12															
13															
14															
15															

Gauge No. 195			Depth 4279'				Clock No. 11657			12 hour					
0	.0000	62	.0000		51	.0000	82	.0000		65					
1	.2120	51	.0276		65	.8340	65	.0345**		75					
2			.0551		218			.0759		124					
3			.0827		405			.1173		348					
4			.1102		610			.1587		529					
5			.1378		744			.2001		656					
6			.1653		833			.2414		761					
7			.1929		891			.2828		831					
8			.2204		948			.3242		884					
9			.2480		986			.3656		917					
10			.2755		1015-Q			.4070		934					
11			.3030		1004-Q										
12															
13															
14															
15															

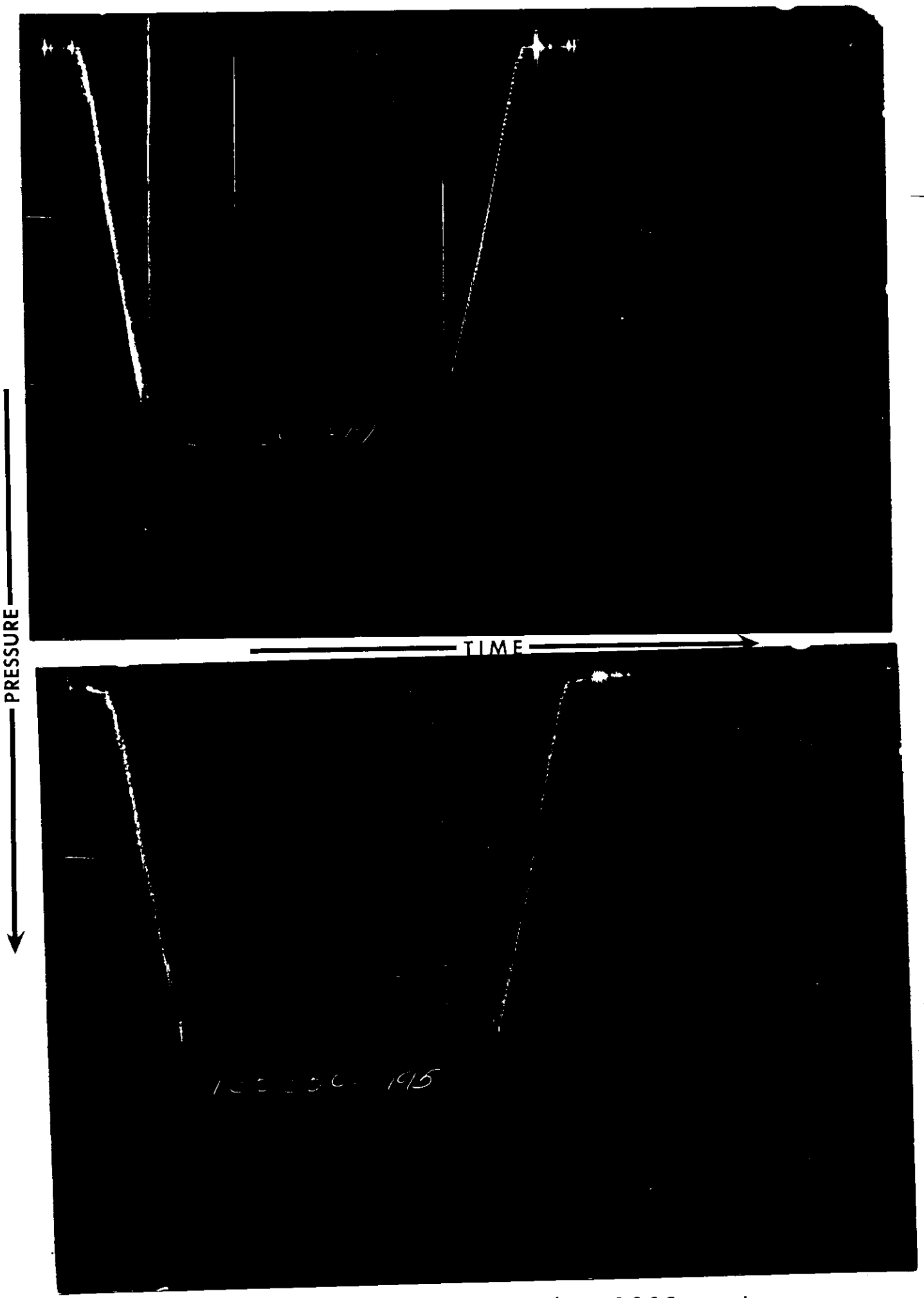
Reading Interval	4	20	6			Minutes

REMARKS: *First interval is equal to 21 minutes. ** = 5 minutes. Q = questionable.

SPECIAL PRESSURE DATA

TICKET NO.

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing	6"	3"	1'	4086'
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4.5"	3.826"	3284'	
Drill Collars -- Weight Pipe	4.5"	2.764"	921'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	6.05'	4206'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	5'	4212'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.75"	4'	4217'
Hydraulic Jar				
VR Safety Joint	5"	1"	2.85'	
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	5.85'	4228'
Distributor				
Packer Assembly	6.75"	1.53"	5.85'	4234'
Flush Joint Anchor & drill pipe &	5"	3.84"	41.50'	
Pressure Equalizing Tube cross overs				
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"	3.75"	1.50'	4277'
Blanked-Off B.T. Running Case	5"	2.75"	4'	4279'
Total Depth				4283'


PRESSURE
TIME