

Formation Testing Service Report

PHILLIPS

Lease Name

1

Well No.

2

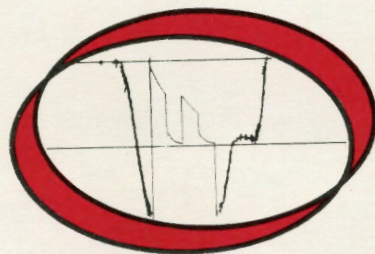
Test No.

3978' - 4008'

Tested Interval

ATLAS MINERALS

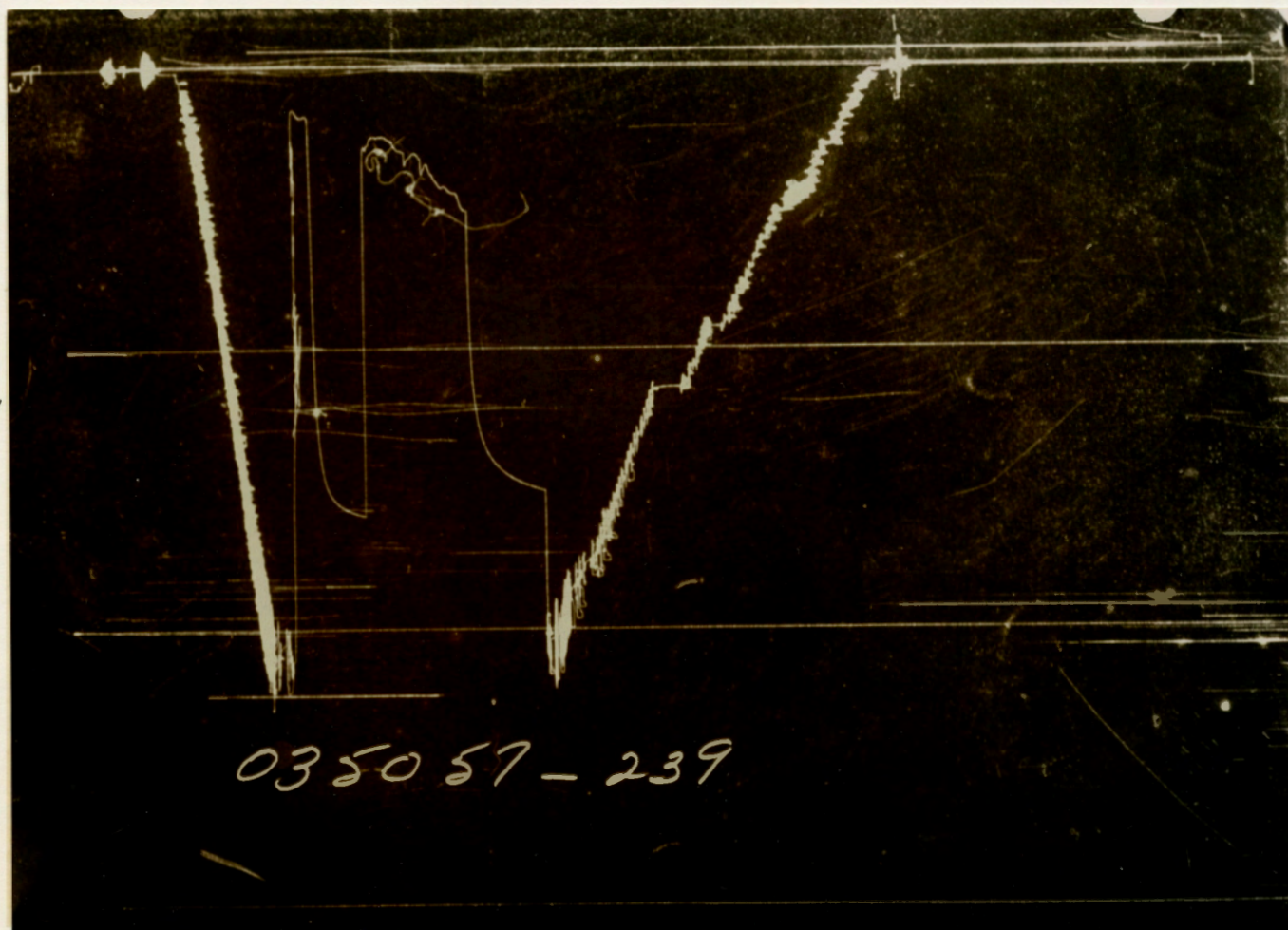
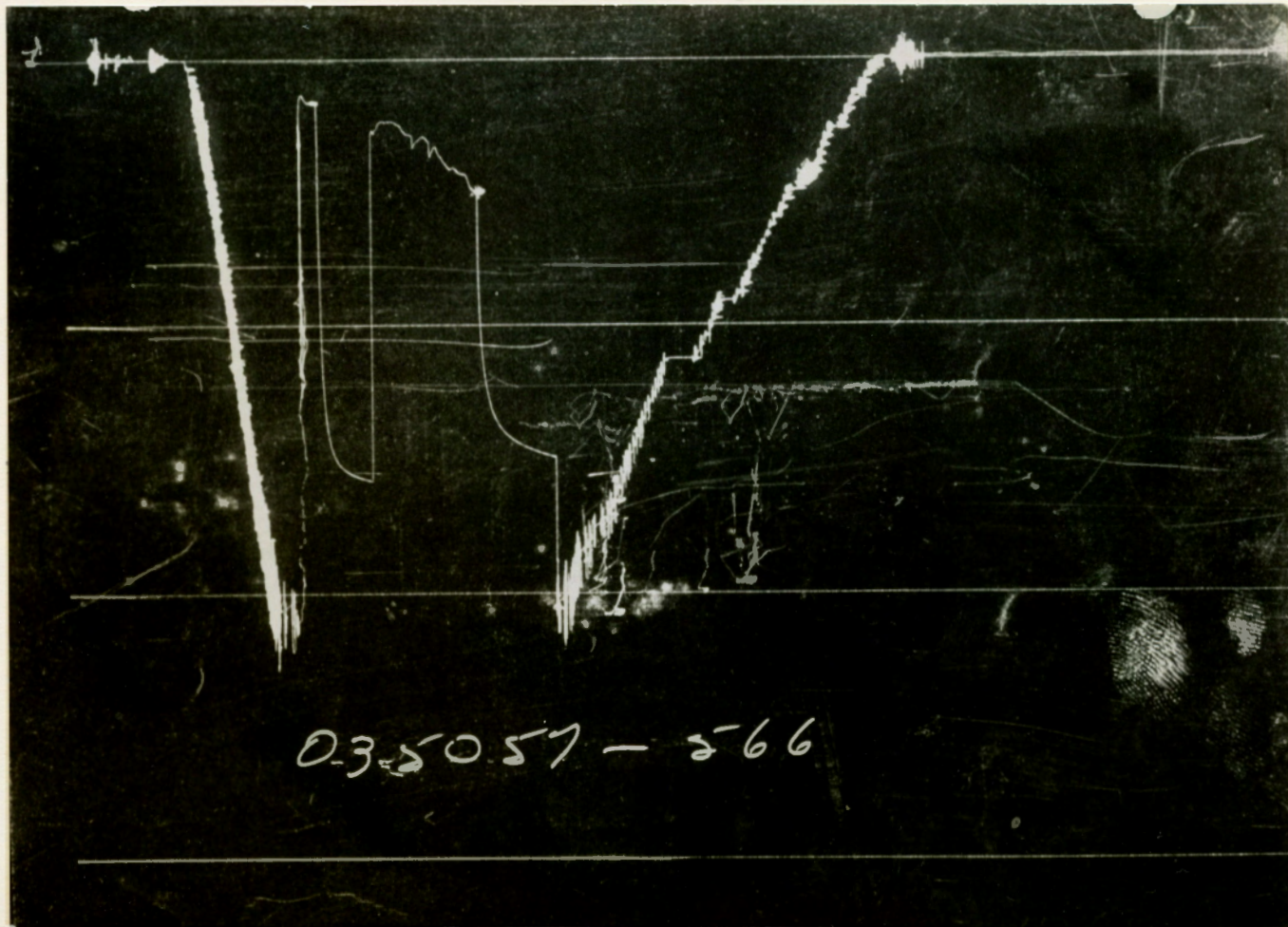
Lease Owner/Company Name



HALLIBURTON SERVICES

DUNCAN, OKLAHOMA

PRESSURE



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

PHILLIPS

Lease Name

Well No.

Test No.

3978' - 4008'

Tested Interval

Legal Location

Sec. - Twp. - Rng. C SW SE 26 32 4N

Field Area

County

SUMNER

State

KANSAS

A TLAS MINERALS

Lease Owner/Company Name

FLUID SAMPLER DATA				Date 7/8/69		Ticket Number 035057 S	
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job OPEN HOLE		Halliburton District EL DORADO	
Recovery: Cu. Ft. Gas _____				Tester WILLIE GASPERSO		Witness MR. LEE PAULSON	
cc. Oil _____				Drilling Contractor SAGE DRILLING COMPANY LC			
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud _____				Formation Tested Mississippi Dolomite			
Tot. Liquid cc. _____				Elevation 1214' G1 Ft.			
Gravity _____ ° API @ _____ °F.				Net Productive Interval 18' Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From 1219' Kelly Bushing			
RESISTIVITY _____ CHLORIDE CONTENT _____				Total Depth 4008' Ft.			
Recovery Water _____ @ _____ °F. _____ ppm				Main Hole/Casing Size 7 7/8"			
Recovery Mud _____ @ _____ °F. _____ ppm				Drill Collar Length -- I.D.			
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm				Drill Pipe Length 1100 Wt. Pipe 3"			
Mud Pit Sample _____ @ _____ °F. _____ ppm				Packer Depth(s) 3978' Ft.			
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm				Depth Tester Valve 3974' Ft.			
Mud Weight _____ vis _____ cp							
TYPE		AMOUNT		Depth Back Pres. Valve		Surface Choke	
Cushion		---		---		1"	
Recovered		2100		Feet of gassy oil.			
Recovered		125		Feet of water.			
Recovered				Feet of			
Recovered				Feet of			
Recovered				Feet of			
Remarks Opened tool for an 11 minute first flow. Closed tool for a 31 minute first closed in pressure. Reopened tool for a 61 minute second flow. Closed tool for a 44 minute final closed in pressure. Gas surface 5 minutes -- too small to measure.							
TEMPERATURE		Gauge No. 566		Gauge No. 239		Gauge No.	
Depth:		3781 Ft.		4005 Ft.		Ft.	
Calc. 100 °F.		12 Hour Clock		12 Hour Clock		Hour Clock	
Est.		Blanked Off no		Blanked Off yes		Blanked Off	
Actual °F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		2040 2097		-- 2110			
Flow Initial		133 161		-- 163			
Flow Final		161 174		-- 182			
Flow Closed in		1575 1581		-- 1593			
Second Period Flow Initial		266 284		-- 295			
Flow Final		513 500		-- 512			
Flow Closed in		1489 1491		-- 1503			
Third Period Flow Initial							
Flow Final							
Flow Closed in							
Final Hydrostatic		-- 2019		-- 2033			

5

Gauge No. 566			Depth 3781'			Clock No. -----			12 hour		Ticket No. 035057					
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	161	.000		174	.000	284	.000		500						
1	.0124	139	.0205		1205	.0692	239	.0276		1204						
2	.0247	160	.0410		1410	.1384	282	.0552		1323						
3	.0371	166	.0615		1484	.2075	297	.0828		1376						
4	.0495	166	.0821		1519	.2767	370	.1104		1407						
5	.0680	174*	.1025		1538	.3459	428	.1380		1427						
6			.1231		1550	.4220	500***	.1656		1443						
7			.1436		1560			.1932		1456						
8			.1641		1568			.2208		1467						
9			.1846		1573			.2484		1476						
10			.2120		1581**			.2760		1485						
11								.3040		1491						
12																
13																
14																
15																

Gauge No. 239			Depth 4005'			Clock No. ---			12 hour	
	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"	PSIG Temp. Corr.	
0	.000	163	.000		182	.000	295	.000	512	
1	.0131	152	.0207		1146	.0679	248	.0273	1207	
2	.0262	164	.0414		1402	.1357	290	.0546	1326	
3	.0393	178	.0621		1487	.2036	308	.0819	1380	
4	.0524	178	.0828		1525	.2715	379	.1092	1413	
5	.0720	182*	.1035		1548	.3393	437	.1365	1436	
6			.1243		1562	.4140	512***	.1638	1453	
7			.1450		1573			.1911	1467	
8			.1657		1581			.2184	1478	
9			.1864		1587			.2457	1487	
10			.2140		1593**			.2730	1496	
11								.3000	1503	
12										
13										
14										
15										

Reading Interval	2	3	10	4	Minutes
REMARKS:	* Last interval equal to 3 minutes ** Last interval equal to 4 minutes *** Last interval equal to 11 minutes				

Formation Testing Service Report

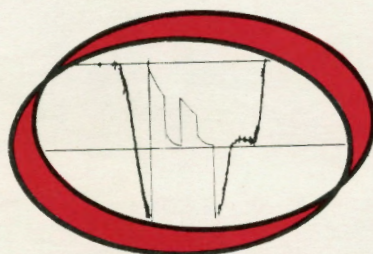
PHILLIPS
Lease Name

1
Well No.

3
Test No.

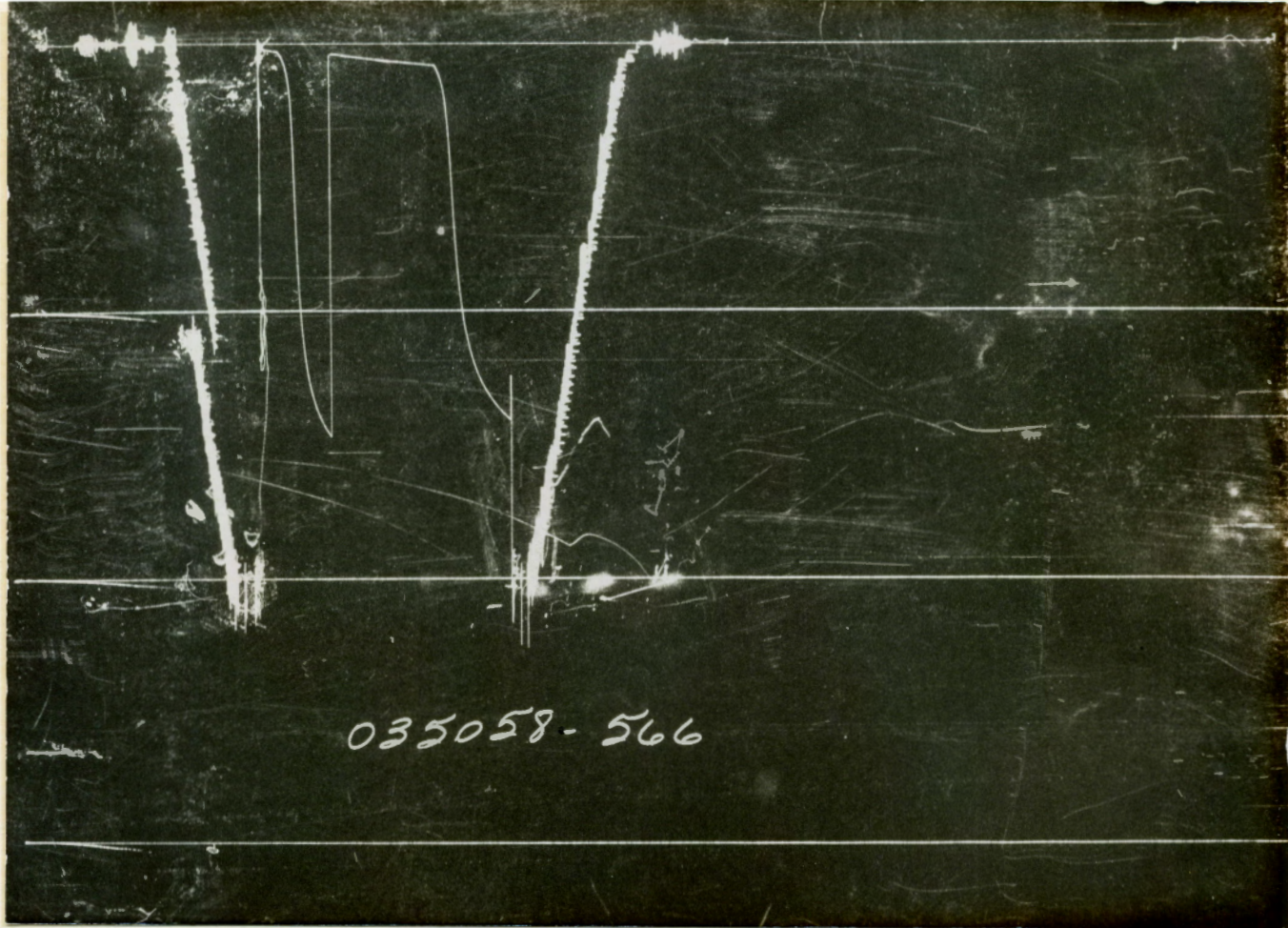
4018' - 4060'
Tested Interval

ATLAS MINERALS
Lease Owner/Company Name

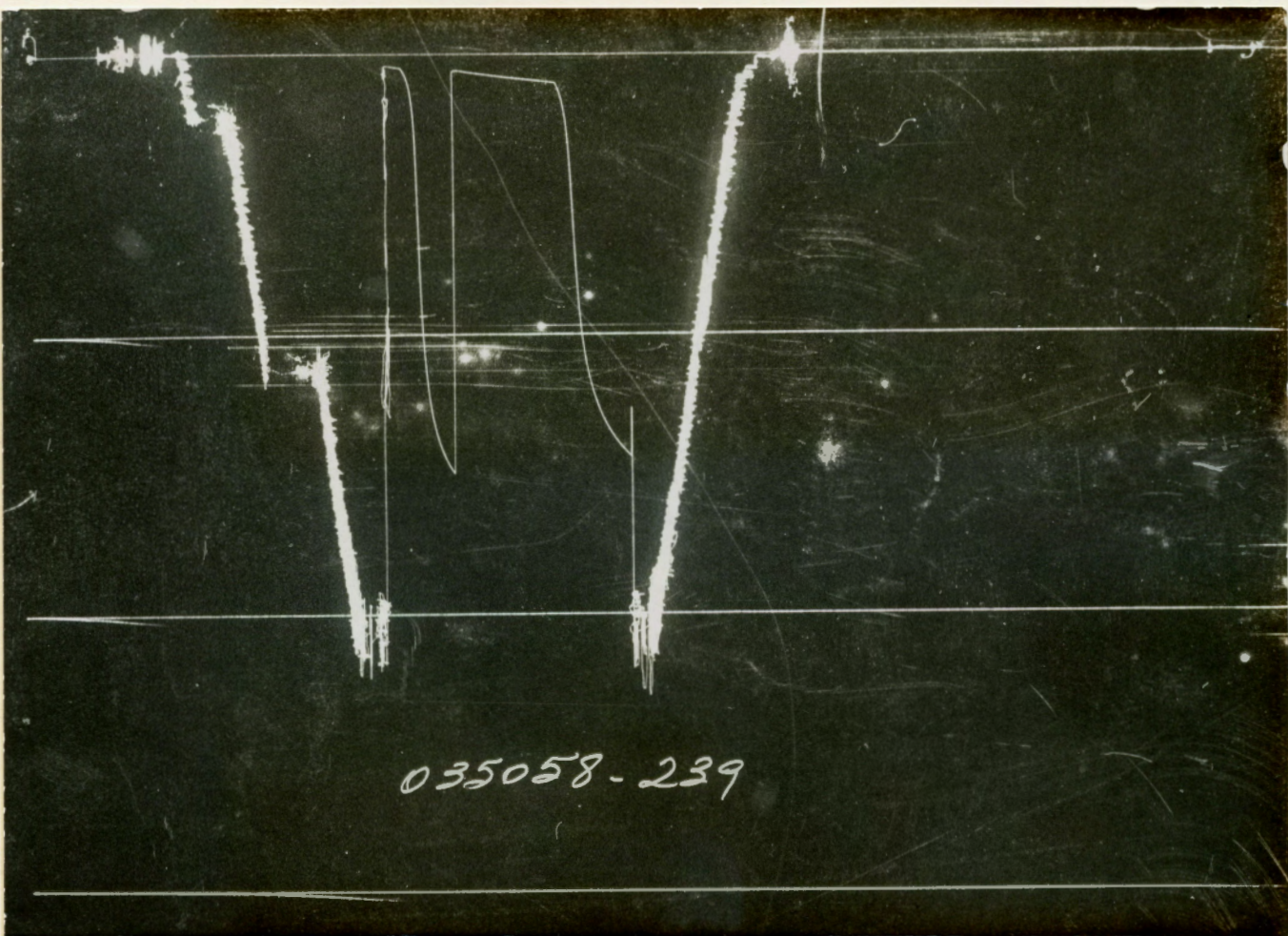


HALLIBURTON SERVICES
DUNCAN, OKLAHOMA

PRESSURE



TIME



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

PHILLIPS
Lease Name

1
Well No.

3
Test No.

4018' - 4060'
Tested Interval

ATLAS MINERALS
Lease Owner/Company Name

Legal Location
Sec. - Twp. - Rng.

26 - 32 - 4N

C/SW/SE

Field Area

County

SUMNER

State

KANSAS

FLUID SAMPLER DATA				Date 7-9-69		Ticket Number 035058	
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job OPEN HOLE		Halliburton District EL DORADO	
Recovery: Cu. Ft. Gas _____				Tester MR. GASPERSO		Witness MR. PAULSEN	
cc. Oil _____				Drilling Contractor SAGE DRILLING COMPANY INCORPORATED			
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud _____				Formation Tested Mississippi			
Tot. Liquid cc. _____				Elevation 1214' G.L. _____ Ft.			
Gravity _____ ° API @ _____ °F.				Net Productive Interval 17' _____ Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From 1219' K.B. _____			
RESISTIVITY CHLORIDE CONTENT				Total Depth 4060' _____ Ft.			
				Main Hole/Casing Size 7 7/8" _____			
Recovery Water _____ @ _____ °F. _____ ppm				Drill Collar Length _____ I.D. _____			
Recovery Mud _____ @ _____ °F. _____				Drill Pipe Length 1100' WT. PIPE 3"			
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm				Packer Depth(s) 4018' _____ Ft.			
Mud Pit Sample _____ @ _____ °F. _____ ppm				Depth Tester Valve 4014' _____ Ft.			
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm							
Mud Weight _____ vis _____ cp							
Cushion		TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke	
					1/4"	3/4"	
Recovered		250	Feet of	Gas cut watery mud			
Recovered			Feet of				
Recovered			Feet of				
Recovered			Feet of				
Recovered			Feet of				
Remarks Opened tool for 10 minute first flow. Closed tool for 32 minute initial closed in pressure. Reopened tool for 62 minute second flow. Closed tool for 45 minute second closed in pressure.							
TEMPERATURE		Gauge No. 566		Gauge No. 239		Gauge No. _____	
		Depth: 4020' Ft.		Depth: 4056' Ft.		Depth: _____ Ft.	
Est. 100 °F.		12 Hour Clock		12 Hour Clock		Hour Clock	
Blanked Off NO		Blanked Off YES		Blanked Off		Tool _____ A.M.	
Actual _____ °F.		Pressures		Pressures		Pressures	
		Field	Office	Field	Office	Field	Office
Initial Hydrostatic		2135	2051	-	2070		
First Period	Flow Initial	10	19	-	44		
	Flow Final	28	30	-	49		
	Closed in	1461	1469	-	1493		
Second Period	Flow Initial	28	46	-	65		
	Flow Final	85	82	-	101		
	Closed in	1414	1408	-	1432		
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic		-	2036	-	2056		

Gauge No. 566			Depth 4020'		Clock No. ---			12 hour	Ticket No. 035058						
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	19	.000		30	.000	46	.000		82					
1	.015	21	.0259		73	.0669	47	.0329		168					
2	.030	24	.0518		233	.1339	54	.0658		552					
3	.045	27	.0776		843	.2008	63	.0987		939					
4	.060	29	.1035		1162	.2667	68	.1316		1128					
5	.075	30	.1294		1302	.3347	74	.1645		1228					
6			.1553		1381	.4150	82*	.1974		1294					
7			.1812		1433			.2303		1342					
8			.2070		1469			.2632		1379					
9								.2960		1408					
10															
11															
12															
13															
14															
15															

Gauge No. 239			Depth 4056'			Clock No. ---			12 hour				
0	.000	44	.000		49	.000	65		.000				
1	.013	43	.0256		91	.0661	66		.0326				
2	.026	44	.0512		244	.1323	73		.0652				
3	.039	46	.0768		866	.1984	82		.0978				
4	.052	48	.1024		1183	.2645	88		.1304				
5	.065	49	.1280		1324	.3306	94		.1630				
6			.1536		1402	.4100	101*		.1956				
7			.1792		1456				.2282				
8			.2050		1493				.2608				
9									.2930				
10													
11													
12													
13													
14													
15													

Reading Interval 2

4

10

5

Minutes

REMARKS:

*Last interval equal to 12 minutes

Formation Testing Service Report

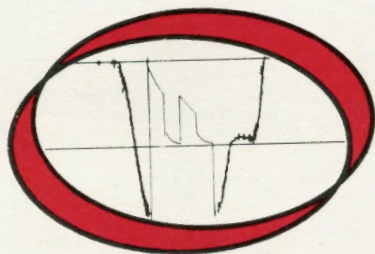
Lease Name **PHILLIPS**

Well No. **1**

Test No. **4**

Tested Interval **4325-4380'**

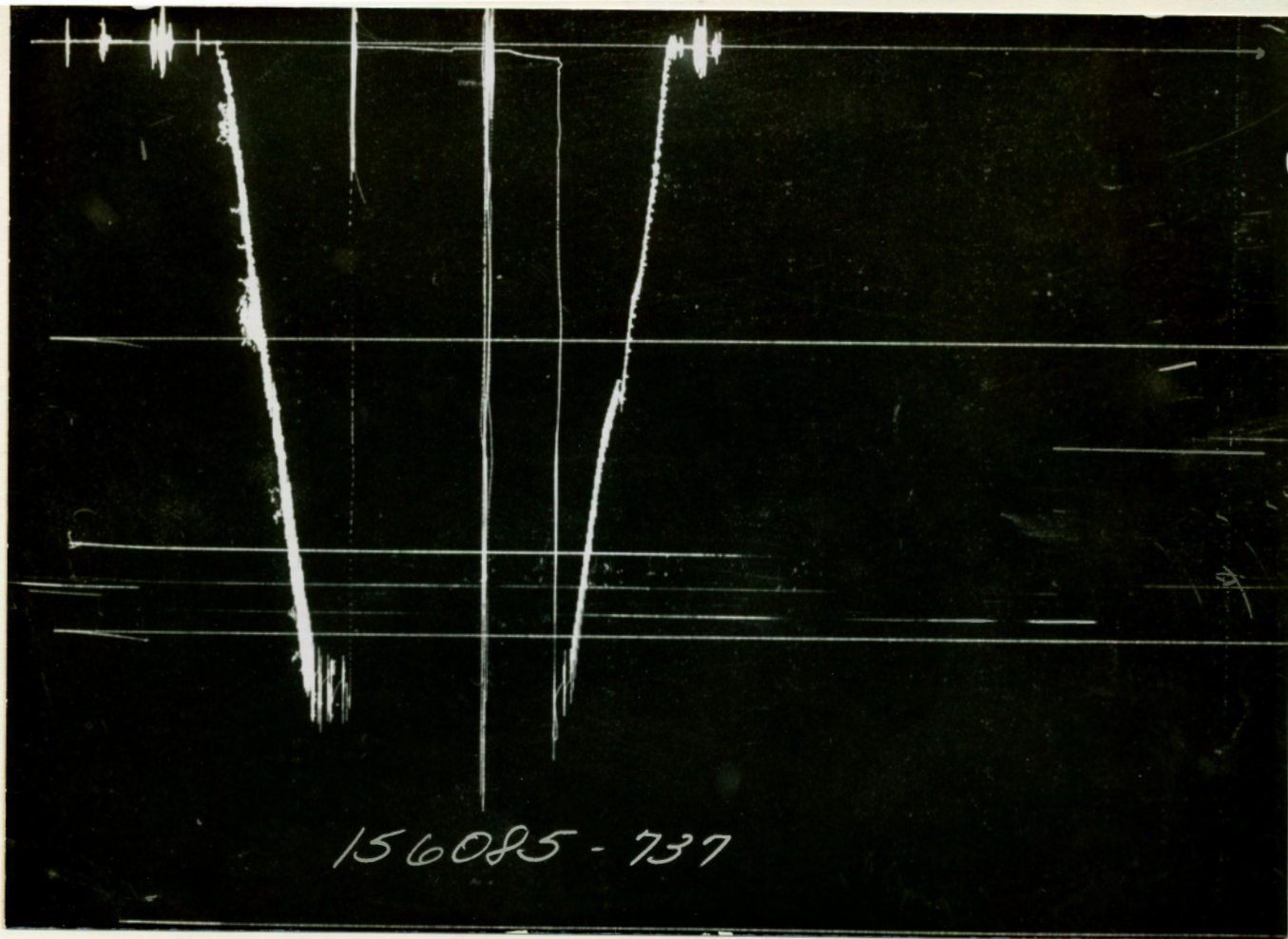
Lease Owner/Company Name **ATLAS MINERALS**



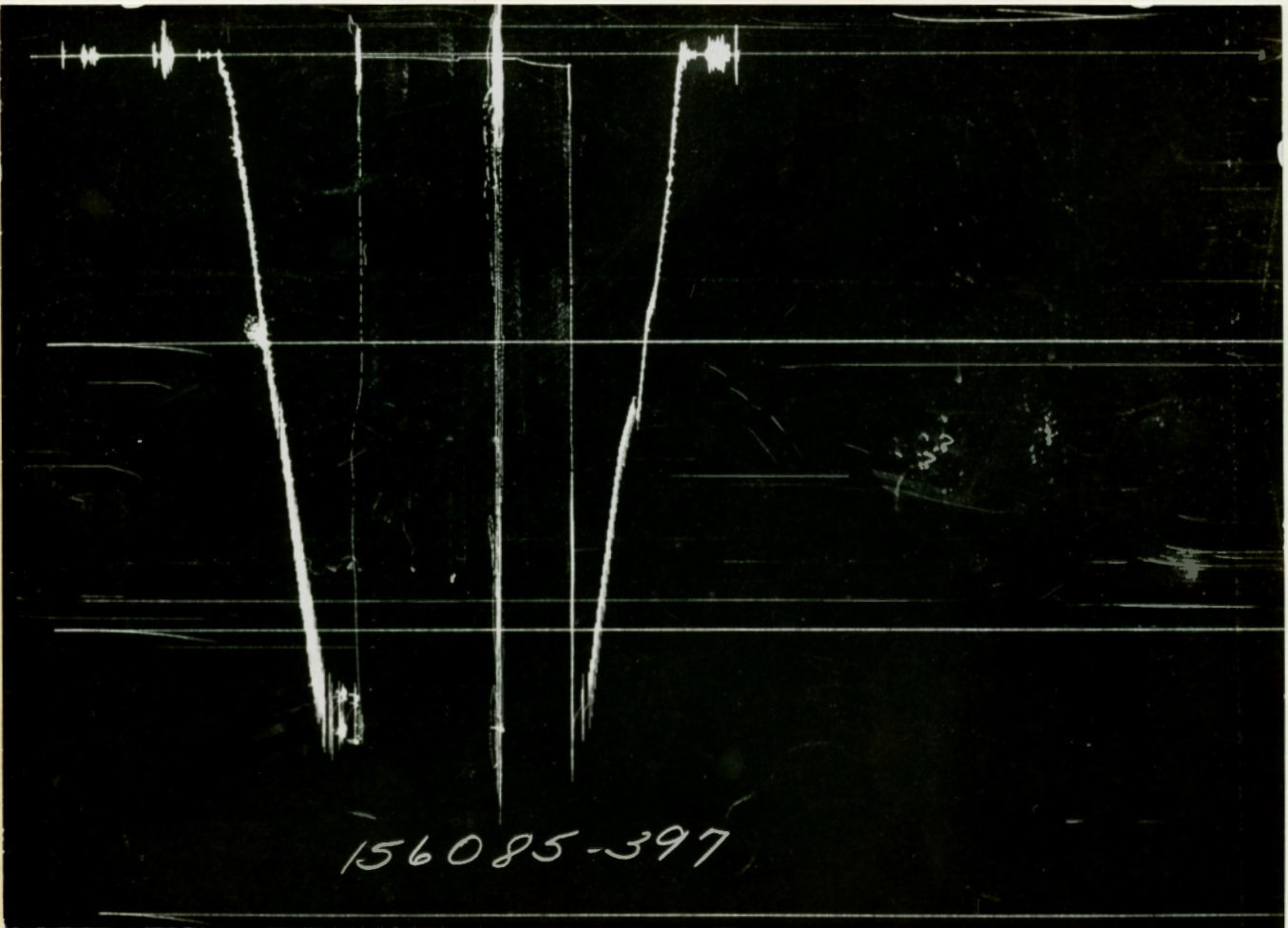
HALLIBURTON SERVICES

DUNCAN, OKLAHOMA

PRESSURE



TIME



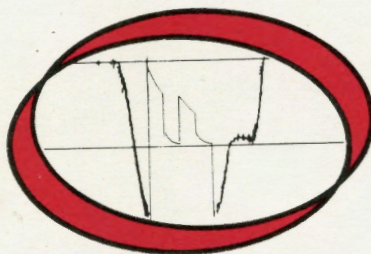
Each Horizontal Line Equal to 1000 p.s.i.

FLUID SAMPLER DATA				Date 7-12-69		Ticket Number 156085	
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.				Kind of Job OPEN HOLE		Halliburton District WINFIELD	
				Tester J. DURHAM		Witness L. POULSEN	
				Drilling Contractor SAGE DRILLING COMPANY SM			
EQUIPMENT & HOLE DATA							
				Formation Tested Simpson			
				Elevation 1219' KB		Ft.	
				Net Productive Interval 3'		Ft.	
				All Depths Measured From Kelly bushing			
				Total Depth 4330		Ft.	
				Main Hole/Casing Size 7 7/8"			
				Drill Collar Length None I.D.			
				Drill Pipe Length 4304' I.D. ??			
				Packer Depth(s) 4325'		Ft.	
				Depth Tester Valve 4315'		Ft.	
				DCIP Valve			
TYPE		AMOUNT		Depth Back Pres. Valve 4311		Surface Choke 1/4" Bottom Choke 3/4"	
Cushion							
Recovered 5		Feet of drilling mud					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks Tool opened with a very weak blur for 20 minutes of 30 minute first flow, no blow for 10 minutes. Closed tool for a 30 minute first closed in pressure. Tool reopened with no blow throughout test. Took a 30 minute second closed in pressure.							
TEMPERATURE		Gauge No. 737		Gauge No. 397		Gauge No.	
		Depth: 4319 Ft.		Depth: 4326 Ft.		Depth: Ft.	
		12 Hour Clock		12 Hour Clock		Hour Clock	
Est. 118 °F.		Blanked Off no		Blanked Off no		Blanked Off	
Actual °F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		-		2154		-	
First Period	Flow Initial	5		15		-	
	Flow Final	9		15		-	
	Closed in	17		25		-	
Second Period	Flow Initial	9		20		-	
	Flow Final	14		22		-	
	Closed in	43		48		-	
Third Period	Flow Initial	-		-		-	
	Flow Final	-		-		-	
	Closed in	-		-		-	
Final Hydrostatic		-		2154		-	

Legal Location Sec. - Twp. - Rng. C SW SE 26 32 4W
 Lease Name PHILLIPS
 Well No. 1
 Test No. 4
 Field Area YARNELL
 County SUMNER
 State KANSAS
 Tested Interval 4325-4380'
 ATLAS MINERALS
 Lease Owner/Company Name

	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5.75	2.25	1	
Water Cushion Valve				
Drill Pipe	4½		4304	
Drill Collars				
Handling Sub & Choke Assembly	5"	3/4"	4'	
Dual CIP Valve				
Dual CIP Sampler	5"	3/4"	4'	4315
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2.25	4'	4319'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4	2.25	4'	4325'
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	2.25	1'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2.25	4	4326'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				

Formation Testing Service Report



PHILLIPS
Lease Name

1
Well No.

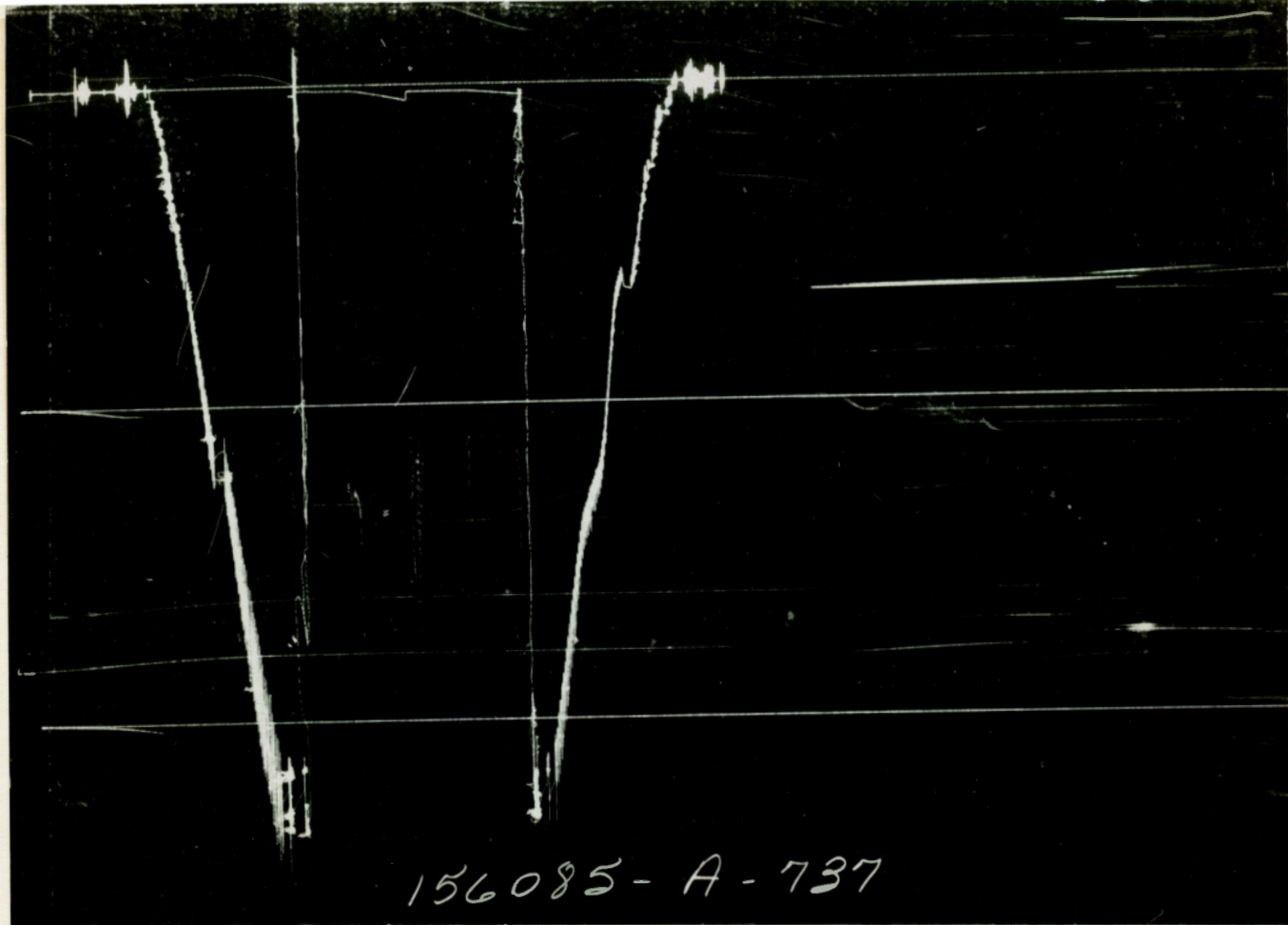
6
Test No.

4325' - 4339'
Tested Interval

ATLAS MINERALS
Lease Owner/Company Name

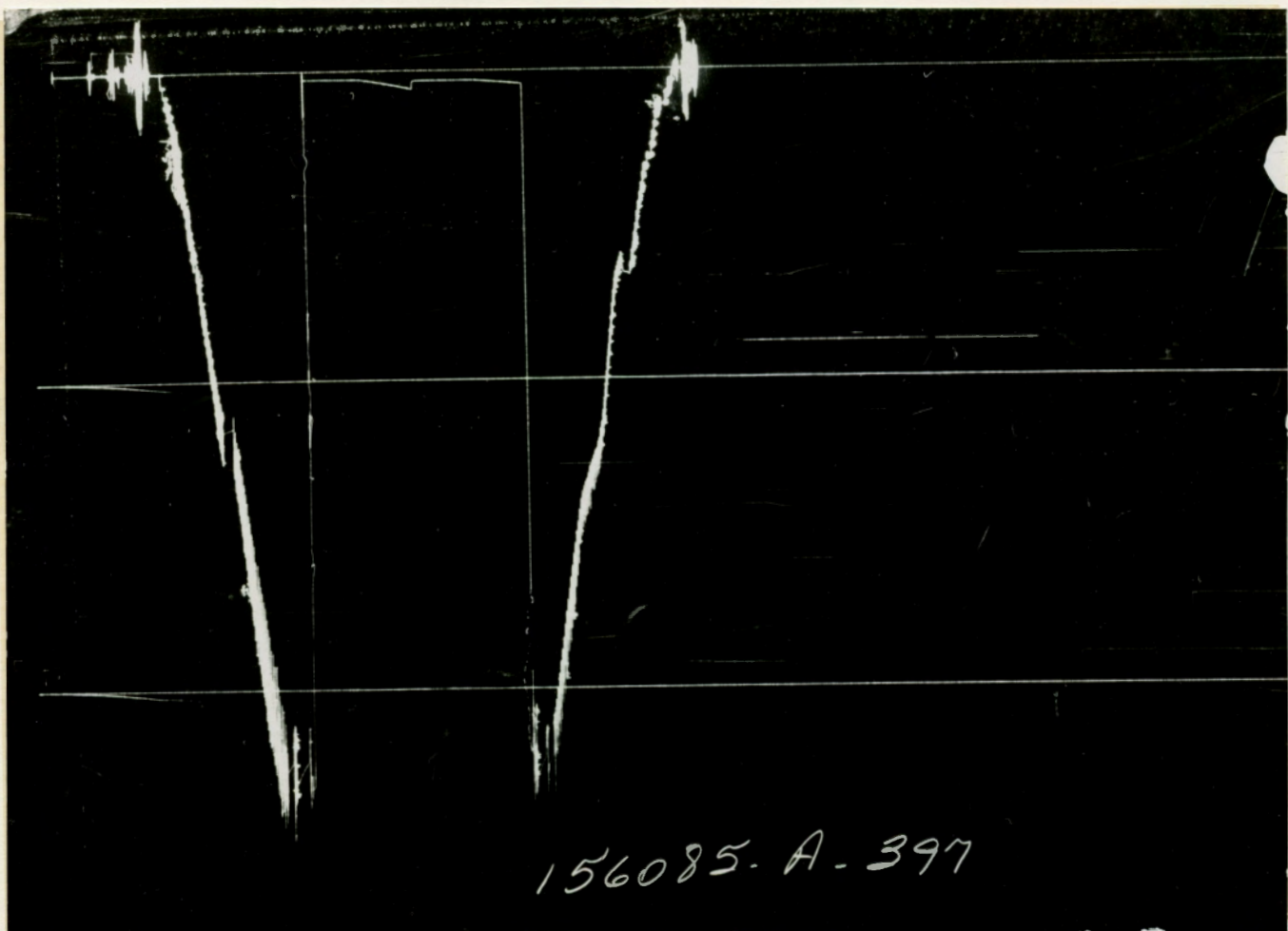
HALLIBURTON SERVICES
DUNCAN, OKLAHOMA

PRESSURE



156085-A-737

TIME



156085-A-397

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

FLUID SAMPLER DATA				Date 7-13-69		Ticket Number 156085-A	
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.				Kind of Job OPEN HOLE		Halliburton District WINFIELD	
				Tester MR. DURHAM		Witness MR. POULSEN	
				Drilling Contractor SAGE DRILLING COMPANY		IC	
EQUIPMENT & HOLE DATA							
				Formation Tested Simpson			
				Elevation 1219'		K.B. Ft.	
				Net Productive Interval 12'		Ft.	
				All Depths Measured From Kelly B ushings			
				Total Depth 4339'		Ft.	
				Main Hole/Casing Size 7 7/8"			
				Drill Collar Length _____		I.D. _____	
				Drill Pipe Length 4304'		I.D. 3.826"	
				Packer Depth(s) 4325'		Ft.	
				Depth Tester Valve 4315'		Ft.	
				D.C.I.P. 4311'		Surface Choke 1/4"	
				Depth Back Pres. Valve _____		Bottom Choke 3/4"	
TYPE _____ AMOUNT _____ Cushion _____							
Recovered 20 Feet of Drilling mud							
Recovered _____ Feet of _____							
Recovered _____ Feet of _____							
Recovered _____ Feet of _____							
Recovered _____ Feet of _____							
Remarks Opened tool for 30 minute first flow with a weak blow. Closed tool for 30 minute initial closed in pressure. Reopened tool for 30 minute second flow with a very weak blow for 5 minutes and then no blow. Closed tool for 30 minute second closed in pressure.							
TEMPERATURE		Gauge No. 737		Gauge No. 397		Gauge No. _____	
		Depth: 4319' Ft.		Depth: 4335' Ft.		Depth: _____ Ft.	
		12 Hour Clock		12 Hour Clock		Hour Clock	
Est. 118 °F.		Blanked Off NO		Blanked Off YES		Blanked Off _____	
Actual _____ °F.		Pressures		Pressures		Pressures	
		Field	Office	Field	Office	Field	Office
Initial Hydrostatic		-	2217	-	2229		
First Period	Flow Initial	14	17	-	31		
	Flow Final	17	20	-	28		
	Closed in	43	51	-	60		
Second Period	Flow Initial	17	24	-	37		
	Flow Final	26	23	-	31		
	Closed in	34	35	-	44		
Third Period	Flow Initial						
	Flow Final						
	Closed in						
Final Hydrostatic		-	2208	-	2218		

 Legal Location
 Sec. - Twp. - Rng.

26 - 32 - 4W

C/SW/SE

Field Area

YARNELL

County

SUMNER

State

KANSAS

 PHILLIPS
 Lease Name

Well No.

6

 4325' - 4339'
 Tested Interval

 ATLAS MINERALS
 Lease Owner/Company Name

5



	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5.75"	2.25"	1'	
Water Cushion Valve				
Drill Pipe	4 1/2"		4304'	
Drill Collars				
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	3/4"	4'	
Dual CIP Sampler				
Hydro-Spring Tester	5"	3/4"	4'	4315'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2.25"	4'	4319'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	2.25"	4'	4325'
Distributor				
Packer Assembly				
Flush Joint Anchor	5"	2.25"	10'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2.25"	4'	4335'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				

Formation Testing Service Report

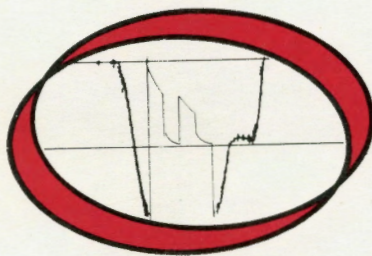
PHILLIPS
Lease Name

1
Well No.

7
Test No.

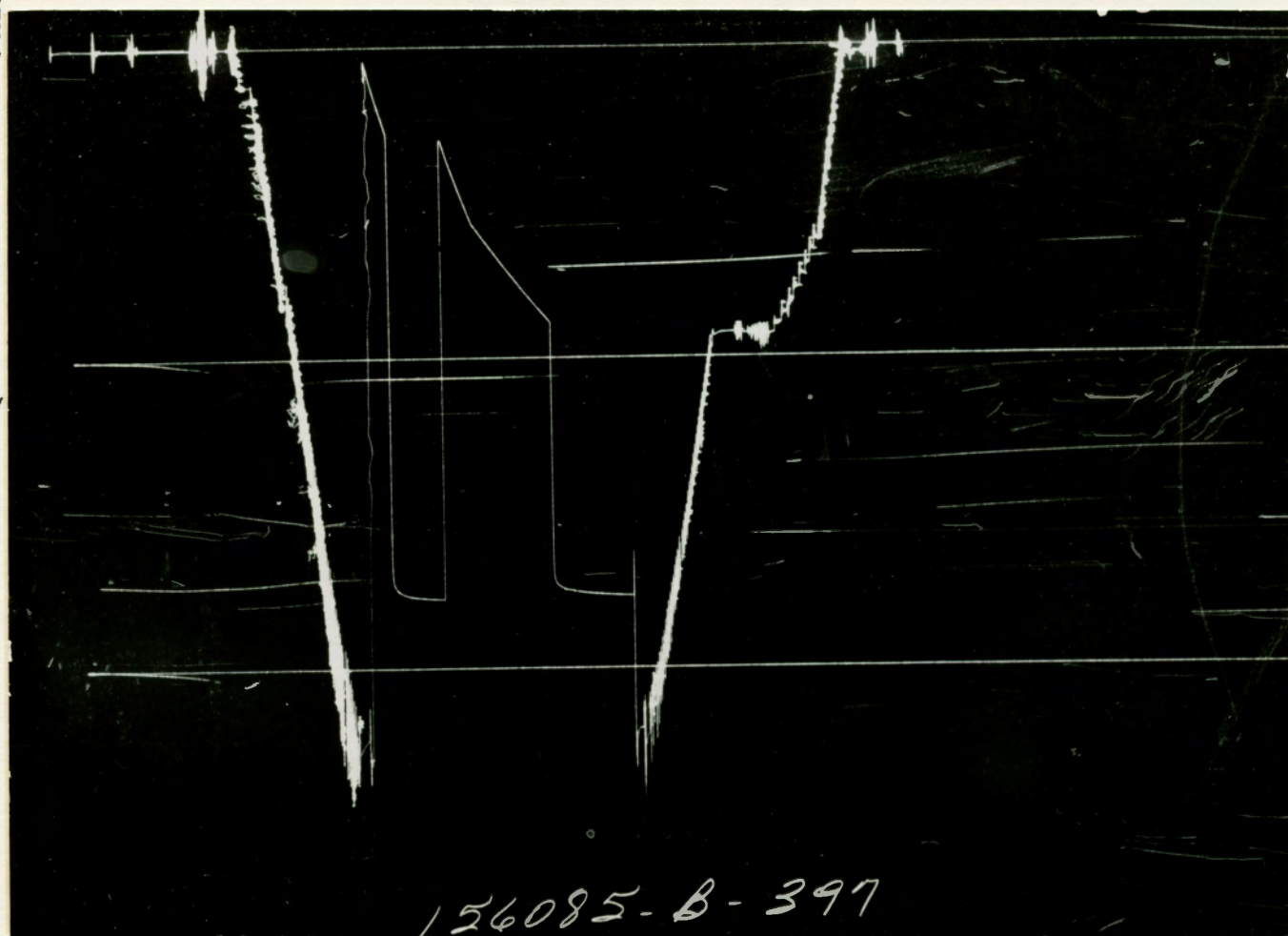
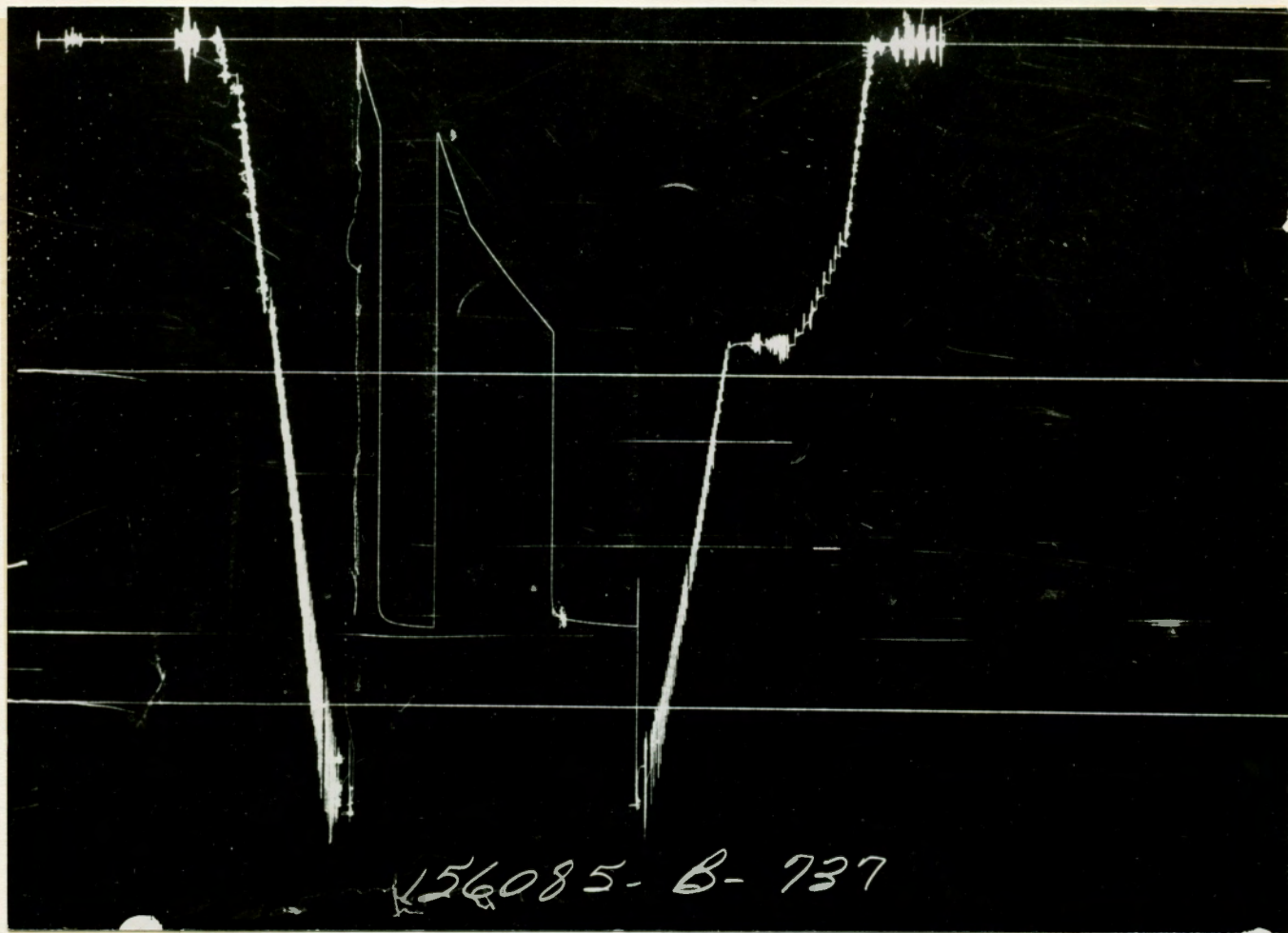
4325' - 4346'
Tested Interval

ATLAS MINERALS
Lease Owner/Company Name



HALLIBURTON SERVICES
DUNCAN, OKLAHOMA

PRESSURE



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

Lease Owner/Company Name

KANSAS

FLUID SAMPLER DATA				Date 7-13-69		Ticket Number 156085-B	
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job OPEN HOLE		Halliburton District WINFIELD	
Recovery: Cu. Ft. Gas _____				Tester MR. DURHAM		Witness MR. PAULSEN	
cc. Oil _____				Drilling Contractor SAGE DRILLING COMPANY IC S			
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud _____				Formation Tested Simpson			
Tot. Liquid cc. _____				Elevation 1219' Ft.			
Gravity _____ ° API @ _____ °F.				Net Productive Interval 19' Ft.			
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From Kelly Bushings			
RESISTIVITY _____ CHLORIDE CONTENT _____				Total Depth 4346' Ft.			
Recovery Water _____ @ _____ °F. _____ ppm				Main Hole/Casing Size 7 7/8"			
Recovery Mud _____ @ _____ °F. _____ ppm				Drill Collar Length _____ I.D. _____			
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm				Drill Pipe Length 4334' I.D. 3.826"			
Mud Pit Sample _____ @ _____ °F. _____ ppm				Packer Depth(s) 4325' Ft.			
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm				Depth Tester Valve 4315' Ft.			
Mud Weight 9.6 vis 49 cp							
TYPE		AMOUNT		Depth Back Pres. Valve 4311'		Surface Choke 1/4"	
Cushion		-				Bottom Choke 3/4"	
Recovered 1728 Feet of Saltwater							
Recovered Feet of							
Recovered Feet of							
Recovered Feet of							
Recovered Feet of							
Remarks Opened tool for 12 minute first flow with a strong blow. Closed tool for 29 minute initial closed in pressure. Reopened tool for 60 minute second flow with a strong blow throughout test. Closed tool for 44 minute second closed in pressure.							
TEMPERATURE		Gauge No. 737		Gauge No. 397		Gauge No.	
Depth:		4319' Ft.		4342' Ft.		Ft.	
12 Hour Clock		12 Hour Clock		Hour Clock		TIME	
Est. 118 °F.		Blanked Off NO		Blanked Off YES		Blanked Off	
Actual °F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		- 2205		- 2229			
Initial		17 29		- 52			
Flow Final		241 269		- 281			
Closed in		1750 1760		- 1777			
First Period						Reported Computed	
						Minutes Minutes	
Initial		258 280		- 301			
Flow Final		868 865		- 886			
Closed in		1750 1751		- 1767			
Second Period							
Initial							
Flow Final							
Closed in							
Third Period							
Initial							
Flow Final							
Closed in							
Final Hydrostatic		- 2175		- 2195			

Gauge No. 737			Depth 4319'		Clock No. ---			12 hour	Ticket No. 156085-B						
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	29	.000		269	.000	280	.000		865					
1	.020	88	.0204		1732	.0682	441	.0273		1723					
2	.040	150	.0408		1743	.1364	574	.0546		1732					
3	.060	204	.0611		1748	.2046	651	.0819		1736					
4	.080	269	.0815		1752	.2728	728	.1092		1740					
5			.1019		1754	.3410	796	.1365		1742					
6			.1223		1756	.4090	865	.1638		1744					
7			.1427		1757			.1911		1746					
8			.1630		1758			.2184		1748					
9			.1834		1759			.2457		1749					
10			.1970		1760*			.2730		1750					
11								.3000		1751					
12															
13															
14															
15															

Gauge No.			397			Depth		4342'		Clock No.		---		12 hour			
0	.000	52	.000		281	.000	301	.000		886							
1	.0195	111	.0199		1746	.0664	458	.0266		1738							
2	.0390	170	.0398		1759	.1328	590	.0532		1748							
3	.0585	226	.0598		1765	.1992	669	.0798		1753							
4	.0780	281	.0797		1769	.2656	744	.1064		1756							
5			.0996		1771	.3321	817	.1330		1759							
6			.1195		1773	.3990	886	.1596		1761							
7			.1395		1774			.1862		1763							
8			.1594		1775			.2128		1764							
9			.1793		1776			.2394		1765							
10			.1930		1777*			.2660		1766							
11								.2930		1767							
12																	
13																	
14																	
15																	
Reading Interval			2			3			10			4			Minutes		

REMARKS:

*Last interval equal to 2 minutes

	O. D.	I. D.	LENGTH	DEPTH
Reversing Sub	5.75"	2.75"	1'	
Water Cushion Valve				
Drill Pipe	4 1/2"		4334'	
Drill Collars				
Handling Sub & Choke Assembly	5"	3/4"	4'	
Dual CIP Valve				
Dual CIP Sampler	5"	3/4"	4'	4315'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	2.25"	4'	4319'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly				
Distributor				
Packer Assembly	6 3/4"	2.25"	4'	4325'
Flush Joint Anchor	5"	2.25"	17'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case	5"	2.25"	4'	4342'
Drill Collars				
Anchor Pipe Safety Joint				
Packer Assembly				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case				