

BRANDENBERG

1

3827-3930'

GULF ENERGY AND MINERAL COMPANY

Legal Location Sec. - Twp. - Rng. 16-12S-24W
 Well No. 1
 Test No. 1
 Tested Interval
 County TREGO
 State KANSAS

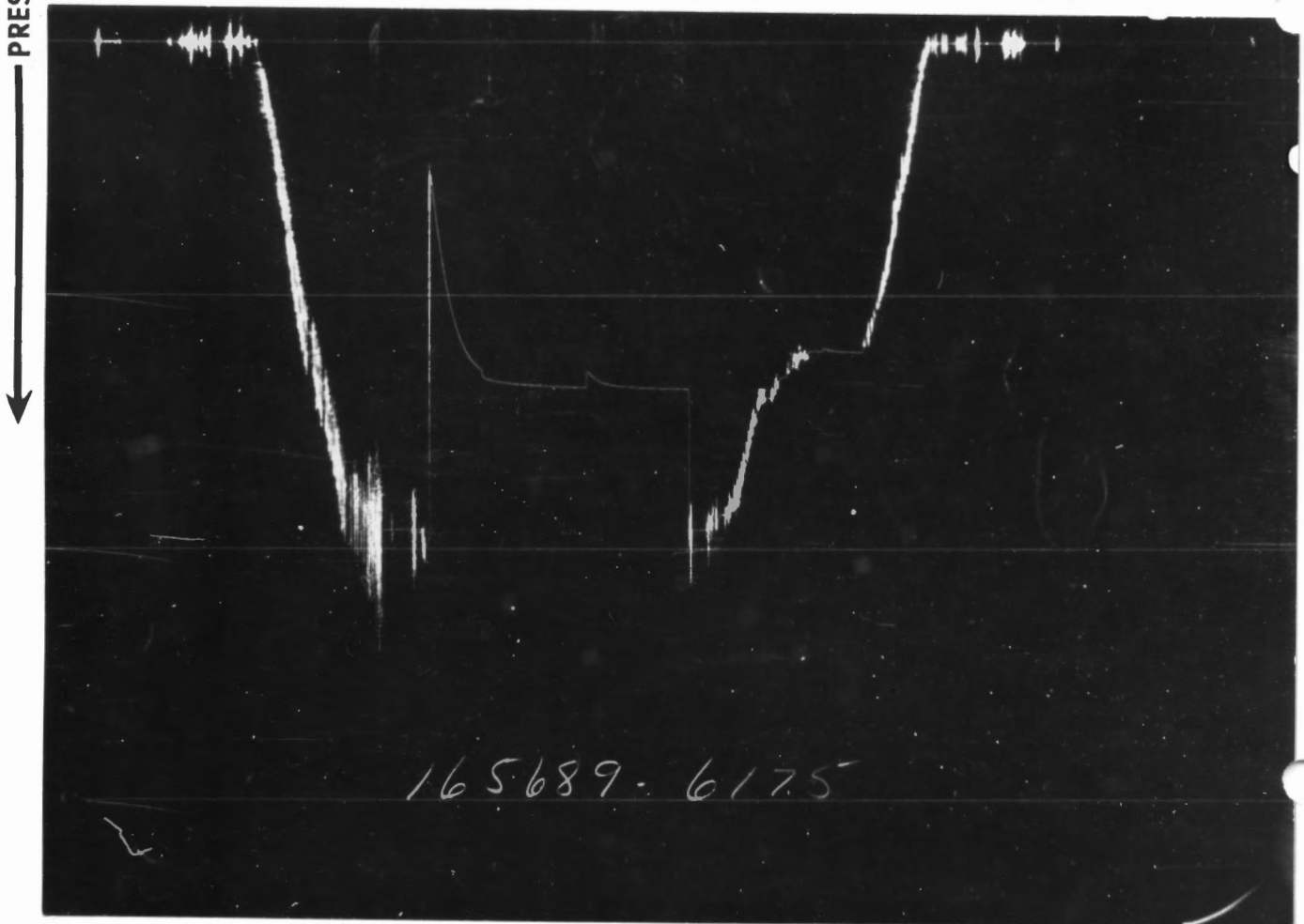
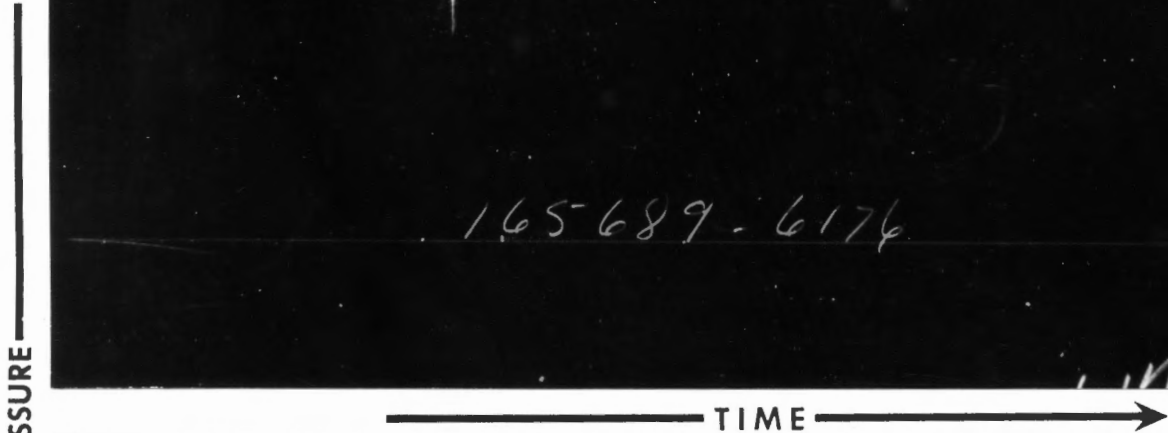
FLUID SAMPLE DATA				Date 11-14-76	Ticket Number 165689
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job OPEN HOLE	Halliburton District GREAT BEND
Recovery: Cu. Ft. Gas _____				Tester MR. KUHN	Witness MR. PAYNE
cc. Oil _____				Drilling Contractor RAINS AND WILLIAMSON RIG # 2 DR	
cc. Water _____				EQUIPMENT & HOLE DATA	
cc. Mud _____				Formation Tested Lansing	
Tot. Liquid cc. _____				Elevation 2491' KB	Ft.
Gravity _____ ° API @ _____ °F.				Net Productive Interval 103'	Ft.
Gas/Oil Ratio _____ cu. ft./bbl.				All Depths Measured From Kelly Bushing	
RESISTIVITY _____ CHLORIDE CONTENT _____				Total Depth 3930'	Ft.
Recovery Water @ _____ °F. _____ ppm				Main Hole/Casing Size 7 7/8"	
Recovery Mud @ _____ °F. _____ ppm				Drill Collar Length 180' I.D. 2.25"	
Recovery Mud Filtrate @ _____ °F. _____ ppm				Drill Pipe Length 3620' I.D. 2.764"	
Mud Pit Sample @ _____ °F. _____ ppm				Packer Depth(s) 3822-3827'	Ft.
Mud Pit Sample Filtrate @ _____ °F. _____ ppm				Depth Tester Valve 3813'	Ft.
Mud Weight 9.5 vis 28 sec					
Cushion		TYPE AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
			Ft.	1/4"	3/4"
Recovered		2886 Feet of muddy salt water			
Recovered		Feet of			
Recovered		Feet of			
Recovered		Feet of			
Recovered		Feet of			
Remarks Opened tool for 31 minute first flow with a good blow throughout.					
Closed tool for 60 minute first closed in pressure. Reopened tool for 30 minute					
second flow, blow decreasing. Closed tool for 29 minute second closed in pressure.					
TEMPERATURE		Gauge No. 6176	Gauge No. 6175	Gauge No.	TIME
Depth: 3817 Ft.		Depth: 3926 Ft.	Depth:	Ft.	
Est. 120 °F.		12 Hour Clock	12 Hour Clock	Hour Clock	Tool A.M.
Blanked Off NO		Blanked Off YES	Blanked Off		Opened 10:58 P.M.
Actual °F.		Pressures	Pressures	Pressures	Opened A.M.
		Field Office	Field Office	Field Office	Bypass 13:28 P.M.
Initial Hydrostatic		1869	1907 1920		Reported Minutes
Flow Initial		454	465 525		Computed Minutes
Flow Final		1240	1253 1293		
Closed in		1308	1346 1359		30 31
Flow Initial		1245	1255 1297		60 60
Flow Final		1308	1346 1361		
Closed in		1314	1346 1364		30 30
Flow Initial					30 29
Flow Final					
Closed in					
Final Hydrostatic		1869	1907 1920		

Gauge No.		6176		Depth		3817'		Clock No.		13857		12 hour		Ticket No.		165689	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0	.000	454		.000	1240	.000	1245	.000	1308	.000	1308						
1	.0403	738*		.0275	1278	.0323	1271	.0147	1308**								
2	.0738	937		.0551	1285	.0647	1289	.0367	1310								
3	.1074	1074		.0826	1289	.0970	1298	.0587	1311								
4	.1409	1156		.1101	1292	.1293	1303	.0808	1312								
5	.1745	1210		.1377	1294	.1617	1306	.1028	1313								
6	.2080	1240		.1652	1297	.1940	1308	.1248	1314								
7				.1927	1298			.1469	1314								
8				.2202	1300			.1689	1314								
9				.2478	1302			.1909	1314								
10				.2753	1303			.2130	1314								
11				.3028	1305												
12				.3304	1305												
13				.3579	1306												
14				.3854	1307												
15				.4130	1308												

Gauge No.		6175		Depth		3926'		Clock No.		7098		hour		12		
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	
0	.000	525		.000	1293	.000	1297	.000	1361							
1	.0408	803*		.0278	1331	.0345	1325	.0139	1361**							
2	.0749	999		.0556	1337	.0690	1343	.0348	1361							
3	.1089	1130		.0834	1342	.1035	1351	.0557	1362							
4	.1429	1215		.1112	1344	.1380	1355	.0766	1363							
5	.1770	1265		.1390	1348	.1725	1357	.0975	1364							
6	.2110	1293		.1668	1350	.2070	1361	.1184	1364							
7				.1946	1351			.1393	1364							
8				.2224	1352			.1602	1364							
9				.2502	1354			.1811	1364							
10				.2780	1355			.2020	1364							
11				.3058	1356											
12				.3336	1357											
13				.3614	1358											
14				.3892	1359											
15				.4170	1359											

Reading Interval 5 4 3 5 3
 REMARKS: *-6 minutes **-2 minutes.
 Minutes

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4 1/2"	2.764"	3620'	
Drill Collars	6 1/4"	2.25"	180'	
Hondling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	70"	3808'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	3813'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	3817'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	48.89"	3822'
Distributor				
Packer Assembly	6 3/4"	1.53"	48.89"	3827'
Flush Joint Anchor				
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars	6 1/4"	2.25"	86'	
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3.00"	12'	
Blanked-Off B.T. Running Case	5"	2.44"	48.71"	3926'
Total Depth				3930'



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

FLUID SAMPLE DATA				Date 11-15-76		Ticket Number 165690	
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. 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 28 sec				Kind of Job OPEN HOLE TEST Tester L. KUHN Drilling Contractor RAINS & WILLIAMSON PW		Halliburton District GREAT BEND Witness E. PAYNE EQUIPMENT & HOLE DATA Formation Tested Kansas City Elevation 2491' K.B. Ft. Net Productive Interval 125' Test Ft. All Depths Measured From Kelly Bushing Total Depth 4055' Ft. Main Hole/Casing Size 7 7/8" Drill Collar Length 180' I.D. 2.25" Drill Pipe Length 3731' I.D. 3.826" Packer Depth(s) 3925' - 3930' Ft. Depth Tester Valve 3916' Ft.	
TYPE AMOUNT Cushion _____ Ft.		Depth Back Pres. Valve _____ Ft.		Surface Choke 1/4"		Bottom Choke 3/4"	
Recovered 1449 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. 6176 Depth: 3921' Ft.		Gauge No. 6175 Depth: 4051' Ft.		Gauge No. _____ Depth: _____ Ft.	
Est. _____ ° F.		12 Hour Clock Blanked Off NO		12 Hour Clock Blanked Off YES		Hour Clock Blanked Off _____	
Actual 124 ° F.		Pressures		Pressures		Pressures	
		Field Office		Field Office		Field Office	
Initial Hydrostatic		1907		2029		1968 ✓	
First Period	Flow Initial	26		101		94	
	Flow Final	376		425		435 ✓	
	Closed in	1346		1397		1408 ✓	
Second Period	Flow Initial	388		425		449	
	Flow Final	635		688		694 ✓	
	Closed in	1346		1397		1407 ✓	
Third Period	Flow Initial						
	Flow Final						
Final Hydrostatic		1881		1927		1944	

Legal Location Sec. - Twp. - Rng. 16 - 12 - 24
 Lease Name BRANDENBERG
 Well No. 1
 Test No. 2
 Tested Interval 3930' - 4055'
 County TREGO
 State KANSAS
 Lease Owner/Company Name GULF OIL CORPORATION

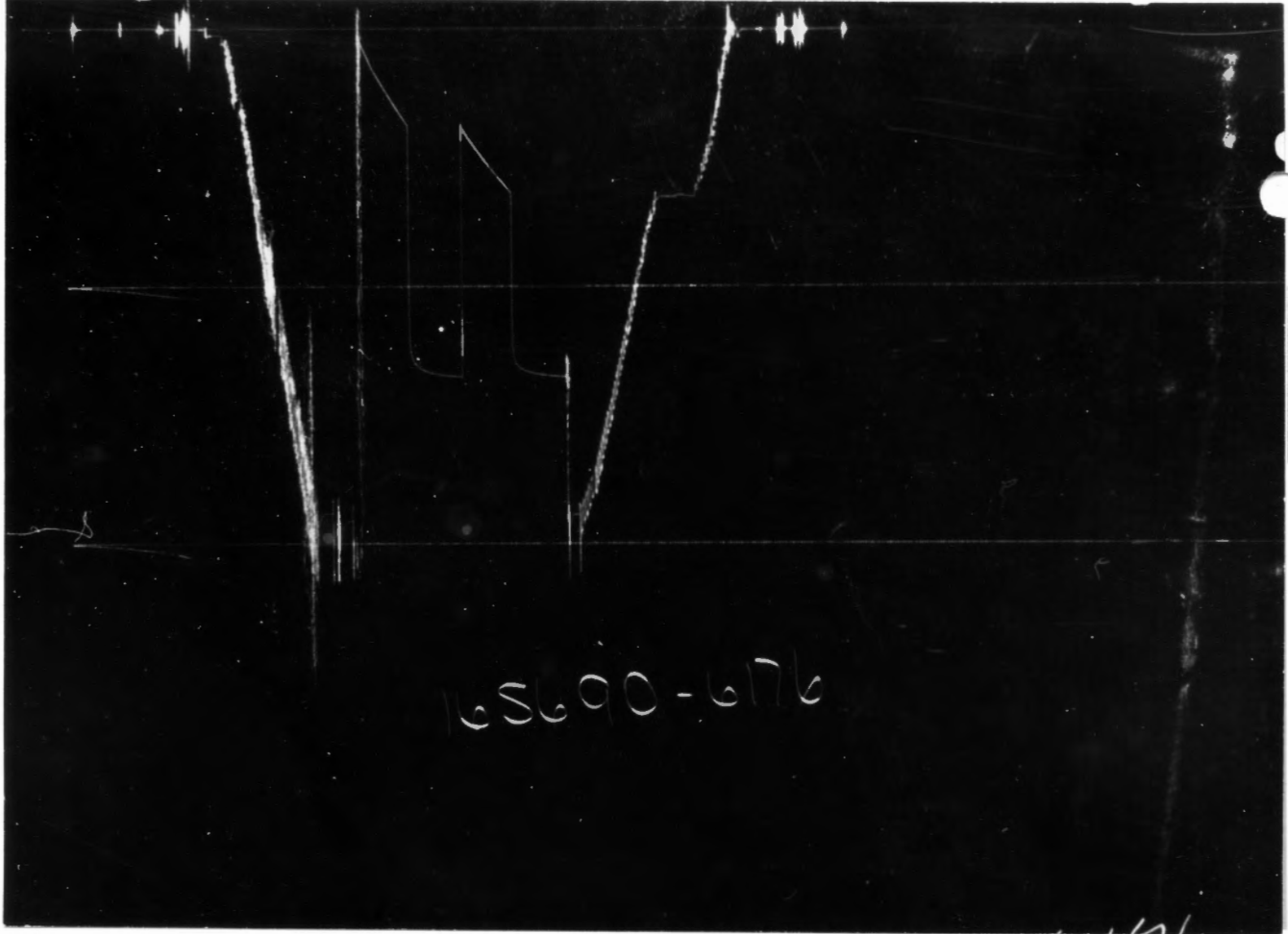
Gauge No. 6176		Depth 3921'		Clock No. 13851		12 hour		Ticket No. 165690	
First Flow Period		First Closed In Pressure		Second Flow Period		Second Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$	
0	.000	26	376	.000	388	.000	635		
1	.0268*	92	1288	.0207***	413	.0268***	1306		
2	.0602	164	1304	.0551	462	.0401	1316		
3	.0937	220	1315	.0896	509	.0535	1322		
4	.1271	273	1321	.1241	553	.0669	1328		
5	.1606	326	1327	.1585	592	.0803	1331		
6	.1940	376	1331	.1930	635	.0937	1334		
7			1334			.1070	1337		
8			1337			.1204	1339		
9			1339			.1338	1341		
10			1341			.1472	1342		
11			1342			.1606	1343		
12			1343			.1739	1344		
13			1344			.1873	1345		
14			1346			.2007	1346		
15			1346			.2140	1346		

Gauge No. 6175		Depth 4051'		Clock No. 7098		12 hour	
First Flow Period		First Closed In Pressure		Second Flow Period		Second Closed In Pressure	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$		$\text{Log } \frac{t + \theta}{\theta}$	
0	.000	94	435	.000	449	.000	694
1	.0273*	155	1351	.0208***	473	.0271***	1365
2	.0615	227	1367	.0554	522	.0407	1376
3	.0957	282	1376	.0901	568	.0543	1382
4	.1297	335	1383	.1247	611	.0678	1387
5	.1639	389	1388	.1594	654	.0814	1391
6	.1980	435	1392	.1940	694	.0949	1395
7			1396			.1085	1397
8			1399			.1221	1399
9			1401			.1356	1401
10			1403			.1492	1402
11			1404			.1627	1404
12			1406			.1763	1405
13			1407			.1899	1405
14			1408			.2034	1406
15			1408			.2170	1407
Reading Interval	5			5			
		2		2			

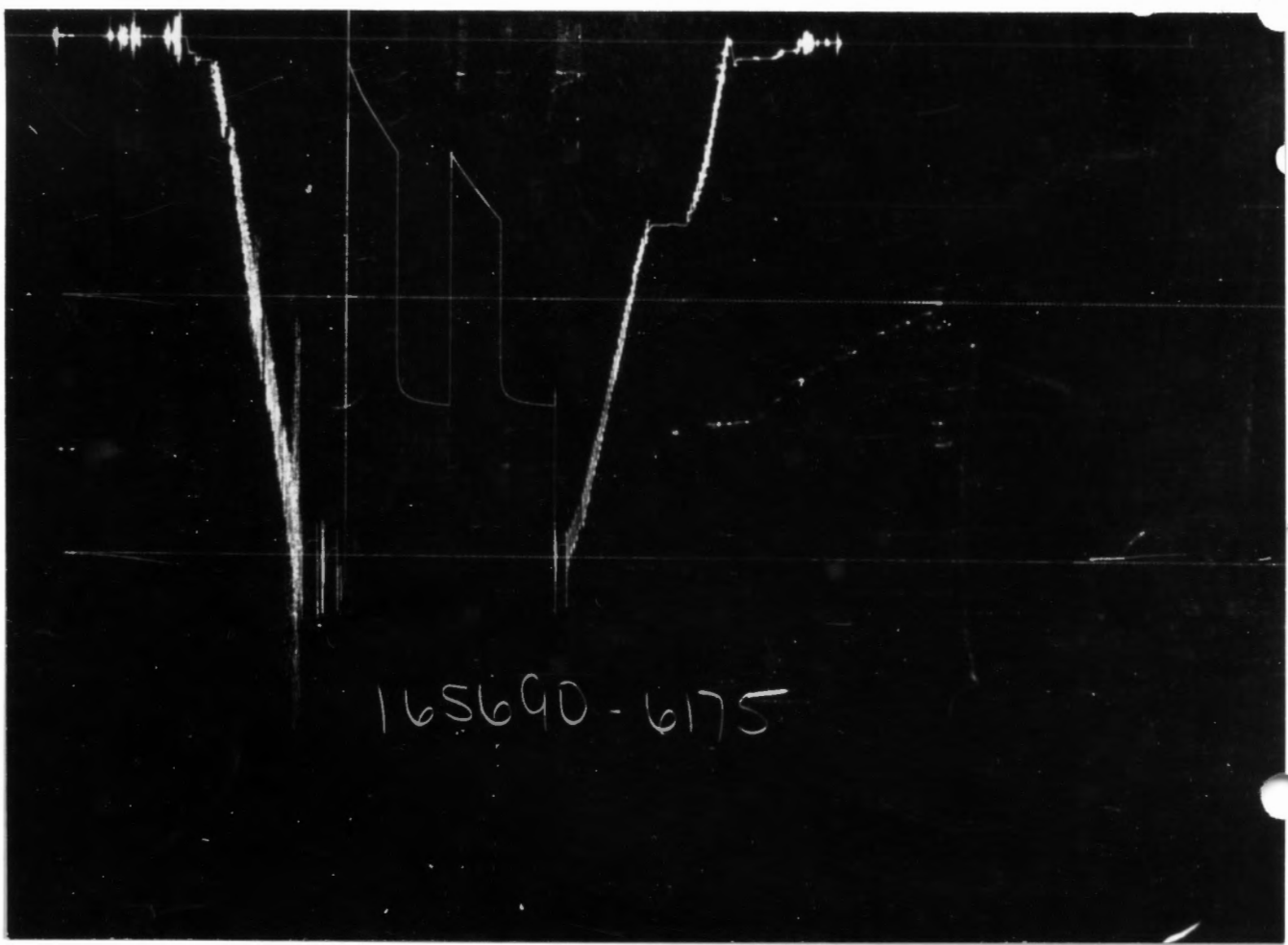
REMARKS: * = 4 minutes ** = 3 minutes *** = 3 minutes **** = 4 minutes

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4½"	3.826"	3731'	
Drill Collars	6¼"	2.25"	180'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	70"	3911'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	3916'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	3921'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	48.89"	3925'
Distributor				
Packer Assembly	6 3/4"	1.53"	48.89"	3930'
Flush Joint Anchor	5"	3"	29'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars	6¼"	2.25"	92'	
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor				
Blanked-Off B.T. Running Case	5"	2.44"	48.71"	4051'
Total Depth				4055'

PRESSURE



TIME



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

FLUID SAMPLE DATA				Date 11-16-76		Ticket Number 165691	
Sampler Pressure _____ P.S.I.G. at Surface				Kind of Job OPEN HOLE		Halliburton District GREAT BEND	
Recovery: Cu. Ft. Gas _____				Tester MR. KUHN		Witness MR. PAYNE	
cc. Oil _____				Drilling Contractor RAINS & WILLIAMSON IC			
cc. Water _____				EQUIPMENT & HOLE DATA			
cc. Mud _____				Formation Tested Kansas City			
Tot. Liquid cc. _____				Elevation _____ Ft.			
Gravity _____ ° API @ _____ °F.		Gas/Oil Ratio _____ cu. ft./bbl.		Net Productive Interval 90' Ft.			
RESISTIVITY _____		CHLORIDE CONTENT _____		All Depths Measured From Kelly Bushing			
Recovery Water _____ @ _____ °F. _____ ppm		Recovery Mud _____ @ _____ °F. _____ ppm		Total Depth 4145' Ft.			
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm		Mud Pit Sample _____ @ _____ °F. _____ ppm		Main Hole/Casing Size 7 7/8"			
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm		Mud Weight 9.4 vis 29 sec		Drill Collar Length 180' I.D. 2.25"			
				Drill Pipe Length 3856' I.D. 3.826"			
				Packer Depth(s) 4050' - 4055' Ft.			
				Depth Tester Valve 4041' Ft.			
TYPE		AMOUNT		Depth Back		Surface	
Cushion				Ft. Pres. Valve		Choke 1/4" Bottom Choke 3/4"	
Recovered		Feet of		Med. From Tester Valve			
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Remarks MISRUN...SEE PRODUCTION TEST DATA SHEET.							
TEMPERATURE		Gauge No. 6176		Gauge No. 6175		Gauge No.	
Depth: 4046' Ft.		Depth: 4141' Ft.		Depth: _____ Ft.		TIME	
Est. _____ °F.		12 Hour Clock		12 Hour Clock		Tool _____ A.M.	
Blanked Off NO		Blanked Off YES		Blanked Off		Opened 5:00 P.M.	
Actual 120 °F.		Pressures		Pressures		Bypass 5:30 P.M.	
		Field Office		Field Office		Reported Computed	
Initial Hydrostatic		- 1974		- 2024		Minutes Minutes	
First Period		Flow Initial		Flow Initial		_____	
		Flow Final		Flow Final		_____	
		Closed in		Closed in		_____	
Second Period		Flow Initial		Flow Initial		_____	
		Flow Final		Flow Final		_____	
		Closed in		Closed in		_____	
Third Period		Flow Initial		Flow Initial		_____	
		Flow Final		Flow Final		_____	
		Closed in		Closed in		_____	
Final Hydrostatic		- 1747		- 1798		_____	

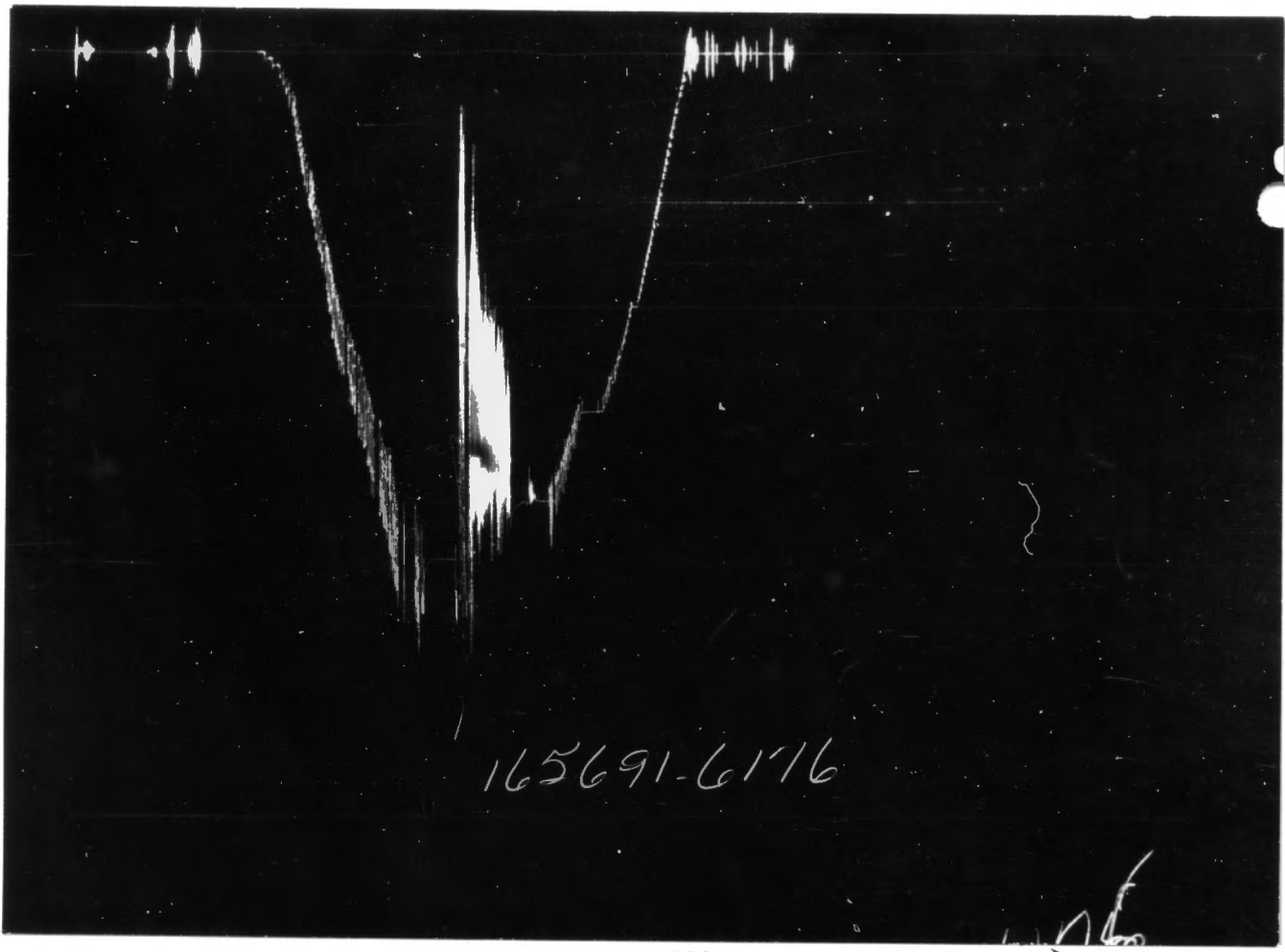
Well Location: 16 - 12 - 24
 Well No.: 1
 Test No.: 3
 Field Area: ---
 County: TREGO
 State: KANSAS

Lease Name: BRANDENBERG
 Tested Interval: 4055' - 4145'
 Lease Owner/Company Name: GULF OIL CORPORATION

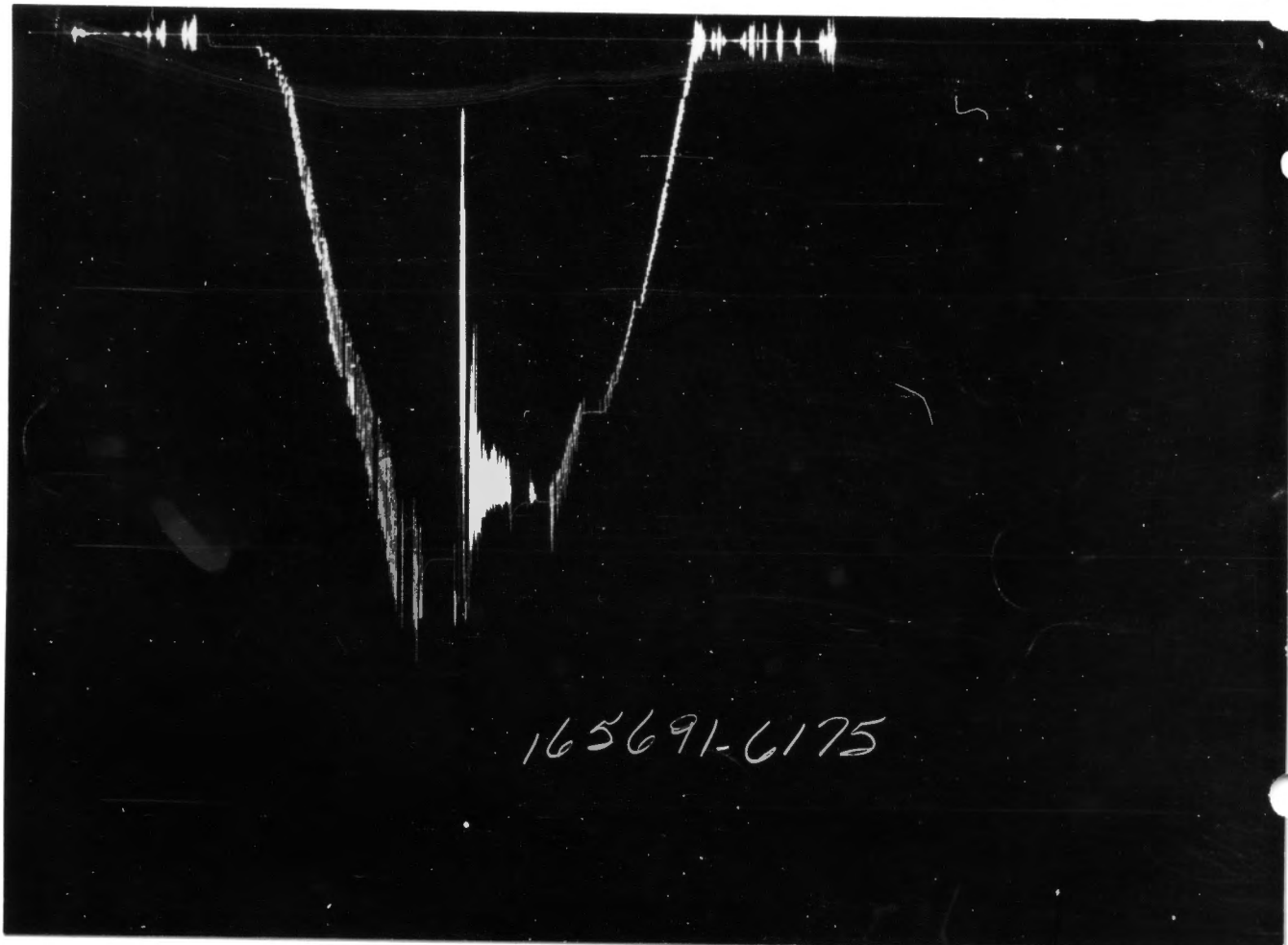


	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	3856'	
Drill Collars	6 1/4"	2.25"	180'	
Handling Sub & Choke Assembly	5"	.87"	70"	4036'
Dual CIP Valve				
Dual CIP Sampler	5"	.75"	60.21"	4041'
Hydro-Spring Tester				
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	4046'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.57"	48.89"	4050'
Distributor				
Packer Assembly	6 3/4"	1.57"	48.89"	4055'
Flush Joint Anchor	5"	3.00"	25'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars	6 1/4"	2.25"	60'	
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3.00"	5'	
Blanked-Off B.T. Running Case	5"	2.44"	48.71"	4141'
Total Depth				4145'

PRESSURE



TIME



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

FLUID SAMPLE DATA		Date	11-16-76	Ticket Number	165692
Sampler Pressure _____ P.S.I.G. at Surface	Kind of Job	OPEN HOLE	Halliburton District	GREAT BEND	
Recovery: Cu. Ft. Gas _____	Tester	MR. KUHN	Witness	MR. PAYNE	
cc. Oil _____	Drilling Contractor	RAINS AND WILLIAMS DRILLING COMPANY			
cc. Water _____	EQUIPMENT & HOLE DATA BC S				
cc. Mud _____	Formation Tested	Kansas City			
Tot. Liquid cc. _____	Elevation	2491' KB	Ft.		
Gravity _____ ° API @ _____ °F.	Net Productive Interval	101' Test	Ft.		
Gas/Oil Ratio _____ cu. ft./bbl.	All Depths Measured From	Kelly Bushing			
RESISTIVITY _____	Total Depth	4145'	Ft.		
CHLORIDE CONTENT _____	Main Hole/Casing Size	7 7/8"			
Recovery Water _____ @ _____ °F. _____ ppm	Drill Collar Length	180' I.D. 2.25"			
Recovery Mud _____ @ _____ °F. _____ ppm	Drill Pipe Length	3850' I.D. 3.826"			
Recovery Mud Filtrate _____ @ _____ °F. _____ ppm	Packer Depth(s)	4039' - 4044'	Ft.		
Mud Pit Sample _____ @ _____ °F. _____ ppm	Depth Tester Valve	4030'	Ft.		
Mud Pit Sample Filtrate _____ @ _____ °F. _____ ppm					
Mud Weight 9.4 vis 32 cp					

Legal Location
Sec. - Twp. - Rng. 16 - 12 - 24

BRANDENBERG
Lease Name

Well No. 1

Test No. 4

4044' - 4145'
Tested Interval

GULF OIL CORPORATION
Lease Owner/Company Name

TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
Cushion			1/4"	3/4"
Recovered	753 Feet of	Muddy salt water		
Recovered	Feet of			
Recovered	Feet of			
Recovered	Feet of			
Recovered	Feet of			
Remarks	SEE PRODUCTION TEST DATA SHEET.			

Field Area
Mea. From Tester Valve

County

TREGO

State

KANSAS

TEMPERATURE	Gauge No. 6176	Gauge No. 6175	Gauge No.	TIME	
	Depth: 4035' Ft.	Depth: 4141' Ft.	Depth: Ft.		
Est. °F.	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 1040 A.M.	
	Blanked Off NO	Blanked Off YES	Blanked Off	Opened 1240 A.M.	
Actual 130 °F.	Pressures	Pressures	Pressures	Bypass P.M.	
	Field Office	Field Office	Field Office	Reported Minutes	
Initial Hydrostatic	1999	2050	2057 ✓	Computed Minutes	
First Period	Flow Initial	17	101	98	
	Flow Final	217	263	275	
	Closed in	1019	1073	1077	30 30
Second Period	Flow Initial	225	283	285	
	Flow Final	310	364	364	
	Closed in	849	890	903	30 30
Third Period	Flow Initial				
	Flow Final				
	Closed in				
Final Hydrostatic	1993	2050	2050		

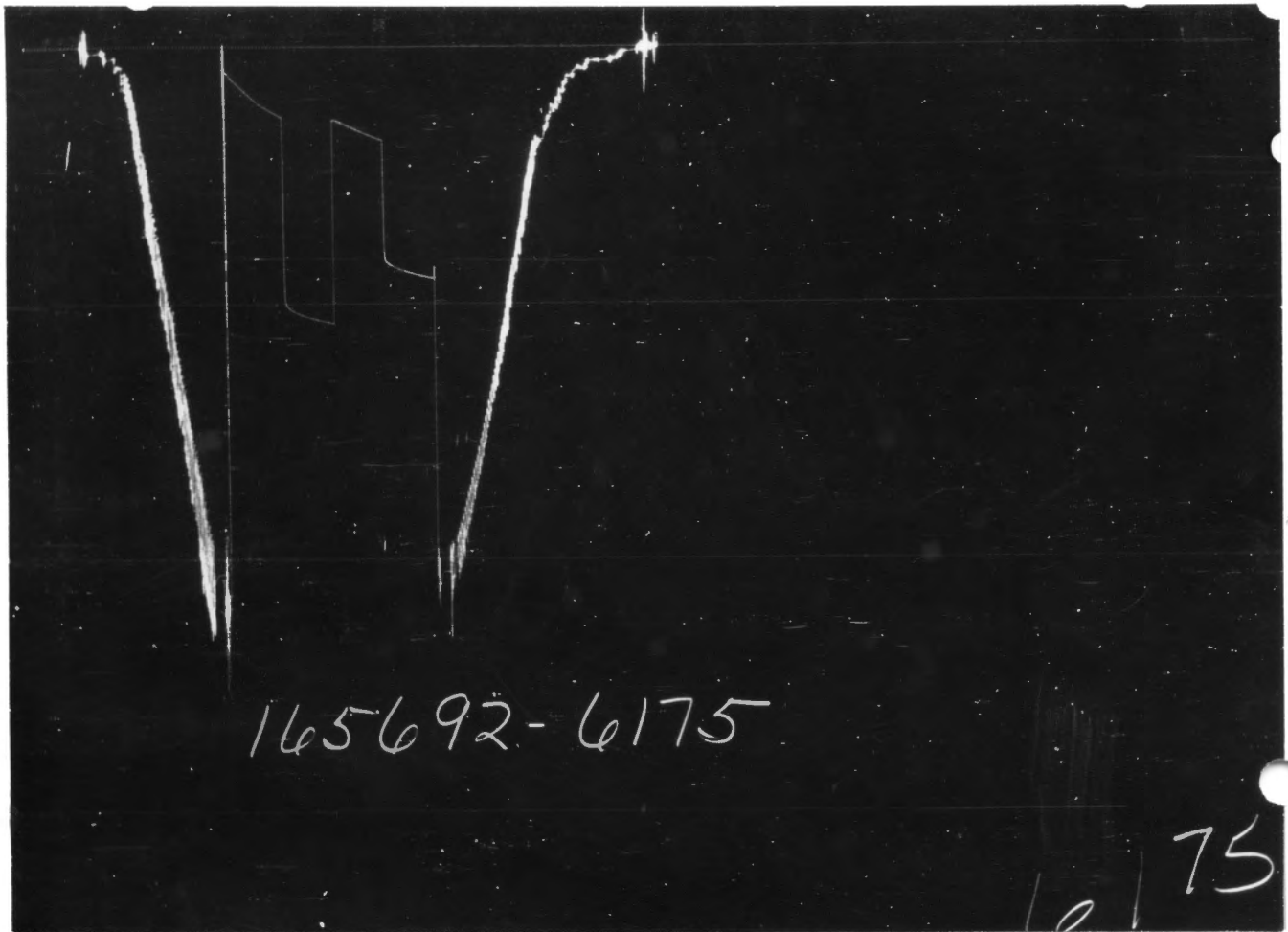
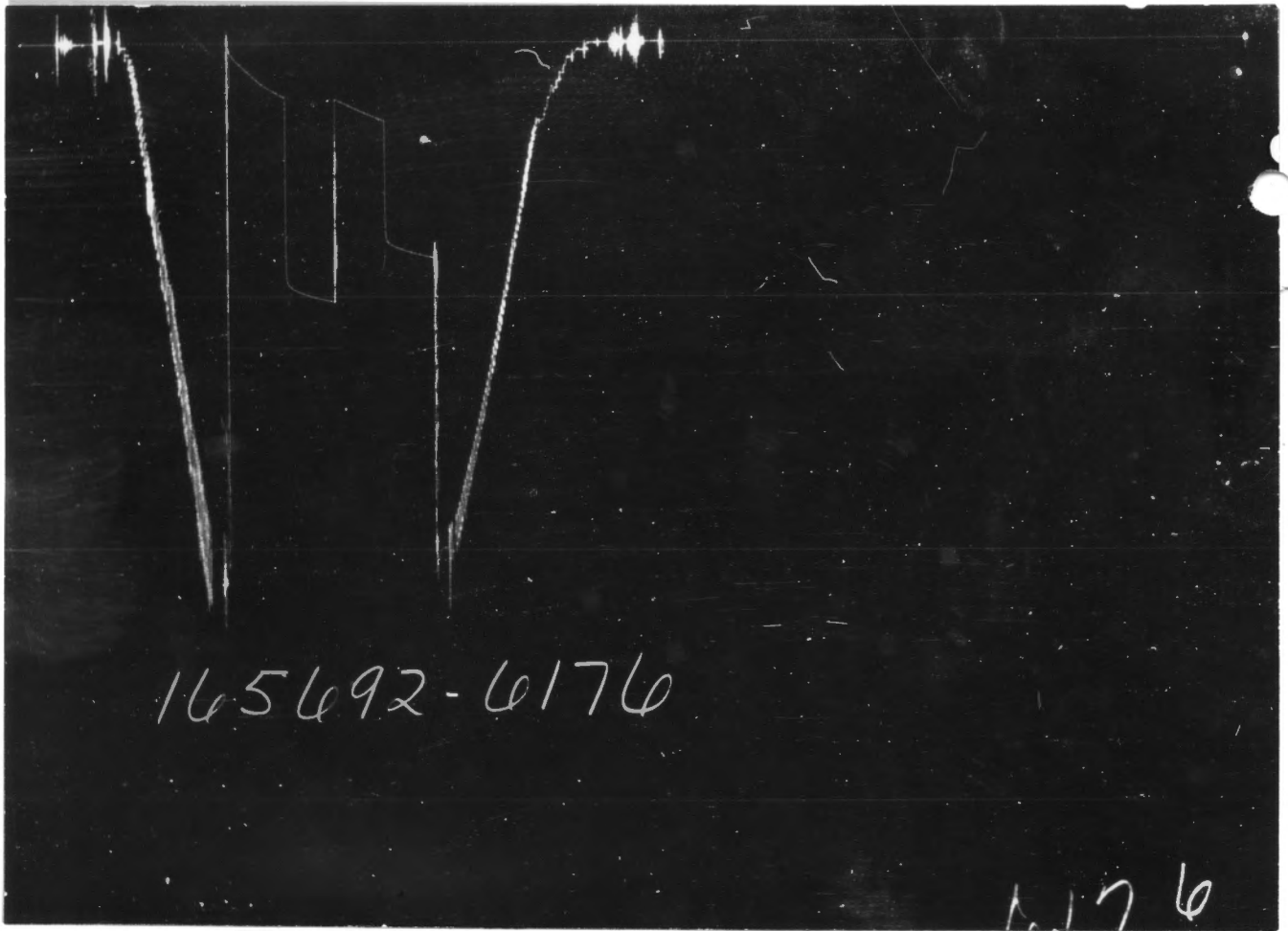
Gauge No. 6176		Depth		4035'		Clock No. 13851		12 hour		Ticket No. 165692	
First Flow Period		Closed In Pressure		Second Flow Period		Second Closed In Pressure		Third Flow Period		Third Closed In Pressure	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
0	.0000	17		.0000	217	.0000	225	.0000	310		
1	.0329	68		.0131	955	.0332	239	.0131	786		
2	.0657	101		.0261	966	.0663	254	.0263	797		
3	.0986	131		.0392	976	.0995	269	.0394	804		
4	.1314	161		.0523	982	.1327	284	.0525	809		
5	.1643	128		.0653	987	.1658	298	.0657	814		
6	.1971	200		.0784	992	.1990	310	.0788	819		
7	.2300	217		.0915	996			.0919	823		
8				.1045	999			.1051	827		
9				.1176	1003			.1182	830		
10				.1307	1006			.1313	834		
11				.1437	1009			.1445	837		
12				.1568	1012			.1576	840		
13				.1699	1015			.1707	844		
14				.1829	1017			.1839	847		
15				.1960	1019			.1970	849		

Gauge No. 6175		Depth		4141'		Clock No. 7098		12 hour	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.
0	.0000	98		.0000	275	.0000	285	.0000	364
1	.0327	129		.0131	1012	.0337	294	.0132	844
2	.0651	158		.0263	1024	.0673	311	.0264	852
3	.0981	188		.0394	1031	.1010	326	.0396	858
4	.1309	217		.0525	1038	.1347	339	.0528	864
5	.1636	239		.0657	1044	.1683	352	.0660	869
6	.1963	258		.0788	1048	.2020	364	.0792	873
7	.2290	275		.0919	1052			.0924	878
8				.1051	1056			.1056	882
9				.1182	1059			.1188	886
10				.1313	1063			.1320	889
11				.1445	1066			.1452	892
12				.1576	1069			.1584	895
13				.1707	1071			.1716	898
14				.1839	1074			.1848	901
15				.1970	1077			.1980	903

Reading Interval	5	2	5	2	Minutes
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5

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4.50"	3.826"	3850'	
Drill Collars	6.25"	2.25"	180'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	70"	4025'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	4030'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	4035'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6.75"	1.53"	48.89"	4039'
Distributor				
Packer Assembly	6.75"	1.53"	48.89"	4044'
Flush Joint Anchor	5"	3"	32'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars	6.25"	2.25"	60'	
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3"	5'	
Blanked-Off B.T. Running Case	5"	2.44"	48.71"	4141'
Total Depth				4145'



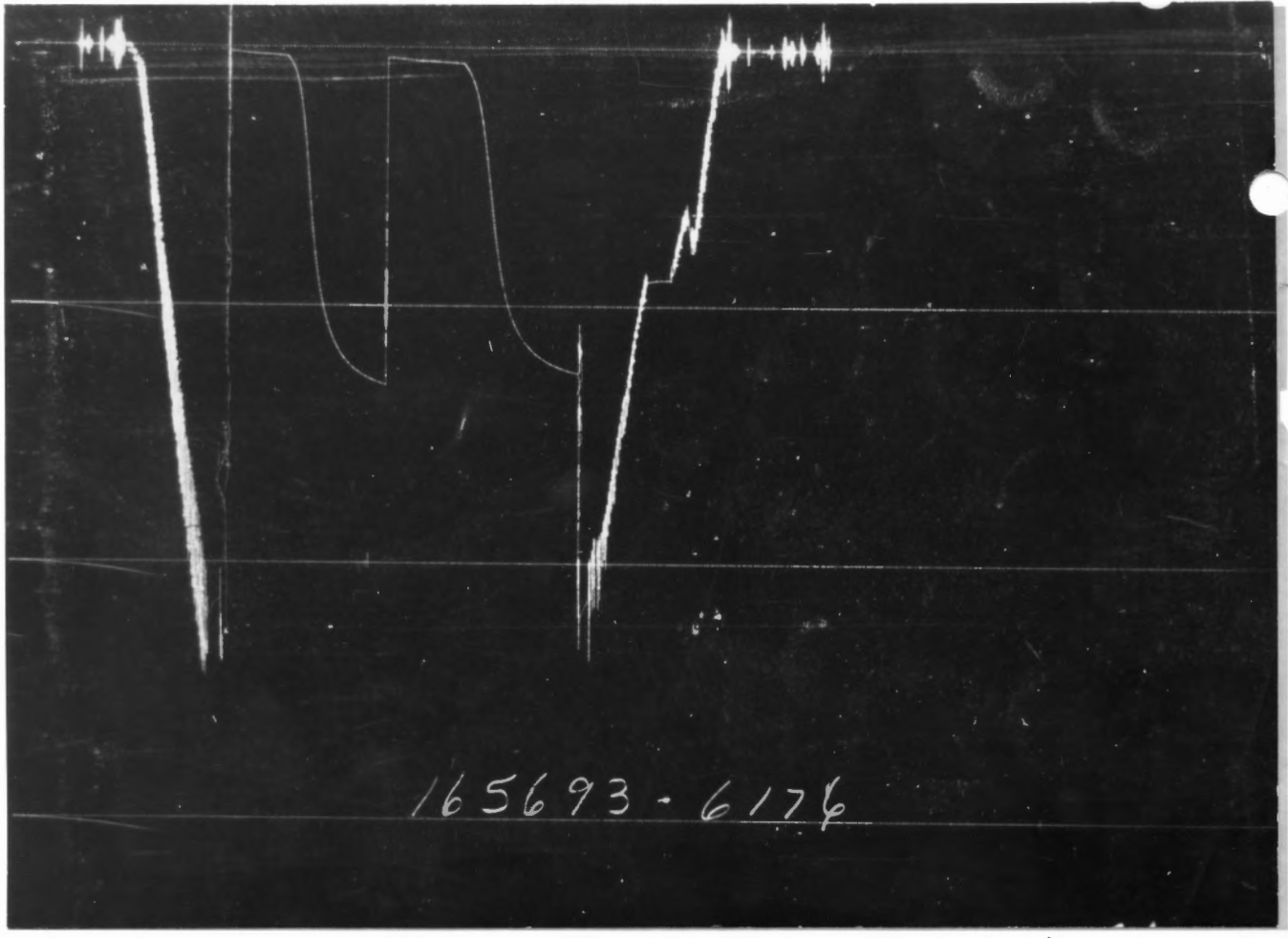
Each Horizontal Line Equal to 1000 p.s.i.

Gauge No.		6176		Depth		4290'		Clock No.		13851		12 hour		Ticket No.		165693	
First Flow Period		Closed In Pressure		Second Flow Period		Second In Pressure		Third Flow Period		Third In Pressure		Third Flow Period		Third In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	
0	.000	18	.000	36	.000	43	.000	.000	63								
1	.0546	24*	.0335	91**	.0596	46	.0535	.0535	177*								
2	.0886	27	.0737	315	.1192	53	.0937	.0937	423								
3	.1227	30	.1138	762	.1788	56	.1338	.1338	778								
4	.1568	33	.1540	1026	.2384	58	.1740	.1740	991								
5	.1909	35	.1942	1147	.2980	63	.2141	.2141	1097								
6	.2250	36	.2343	1210	.2944		.2543	.2543	1155								
7			.2745	1250	.3346		.2944	.2944	1193								
8			.3147	1276	.3747		.3346	.3346	1220								
9			.3548	1295	.4149		.3747	.3747	1238								
10			.3950	1307	.4550		.4149	.4149	1251								
11							.4550	.4550	1261								
12																	
13																	
14																	
15																	
Reading Interval		5		6		9		6		6		6		6		Minutes	
REMARKS: * -8 minutes ** -5 minutes																	

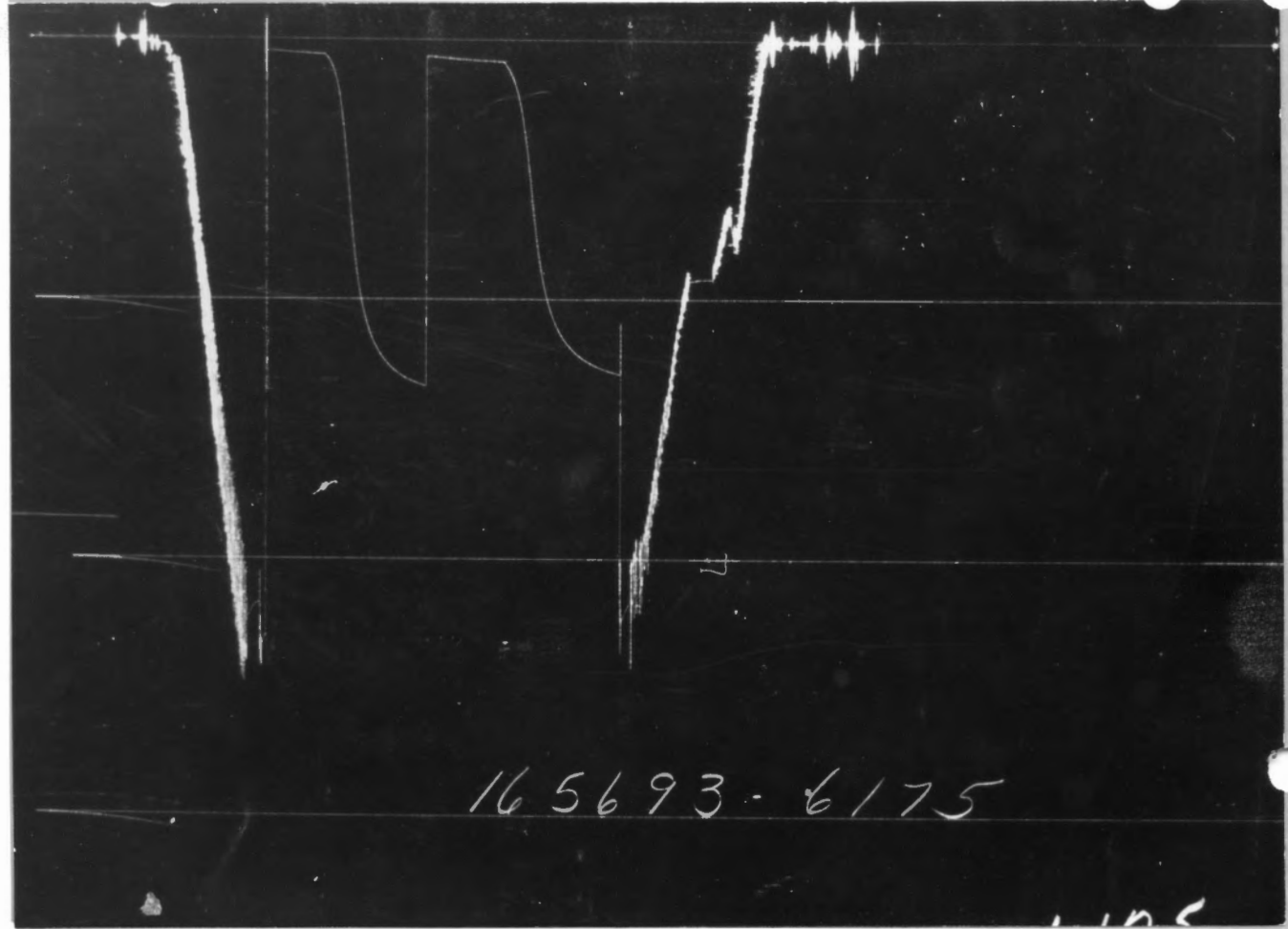
Gauge No.		6175		Depth		4341'		Clock No.		7098		12 hour					
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.				
0	.000	50	.000	61	.000	68	.000	.000	87								
1	.0560	50*	.0336	118**	.0606	72	.0538	.0538	205*								
2	.0910	54	.0738	240	.1212	78	.0941	.0941	456								
3	.1260	56	.1141	816	.1818	80	.1344	.1344	814								
4	.1610	57	.1544	1059	.2424	83	.1747	.1747	1018								
5	.1960	59	.1946	1173	.3030	87	.2150	.2150	1123								
6	.2310	61	.2349	1238	.2752		.2554	.2554	1178								
7			.2752	1276	.3155		.2957	.2957	1219								
8			.3155	1302	.3558		.3360	.3360	1243								
9			.3558	1320	.3960		.3763	.3763	1264								
10			.3960	1333			.4166	.4166	1276								
11							.4570	.4570	1286								
12																	
13																	
14																	
15																	
Reading Interval		5		6		9		6		6		6		6		Minutes	
REMARKS: * -8 minutes ** -5 minutes																	

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4 1/2"	3.764"	4101'	
Drill Collars	6 1/4"	2.25"	180'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	70"	4281'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	4286'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	4290'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	48.89"	4295'
Distributor				
Packer Assembly	6 3/4"	1.53"	48.89"	4300'
Flush Joint Anchor	5"	3.00"	5'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars	6 1/4"	2.25"	30'	
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3.00"	5'	
Blanked-Off B.T. Running Case	5"	2.44"	48.71"	4341'
Total Depth				4345'

PRESSURE



TIME



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

BRANDENBERG

Lease Name

1

Well No.

6

Test No.

4372 - 4475'

Tested Interval

GULF OIL CORPORATION

Lease Owner/Company Name

Legal Location
Sec. - Twp. - Rng.

16 12 24

Field Area

Mea. From Tester Valve

County TREGO

State

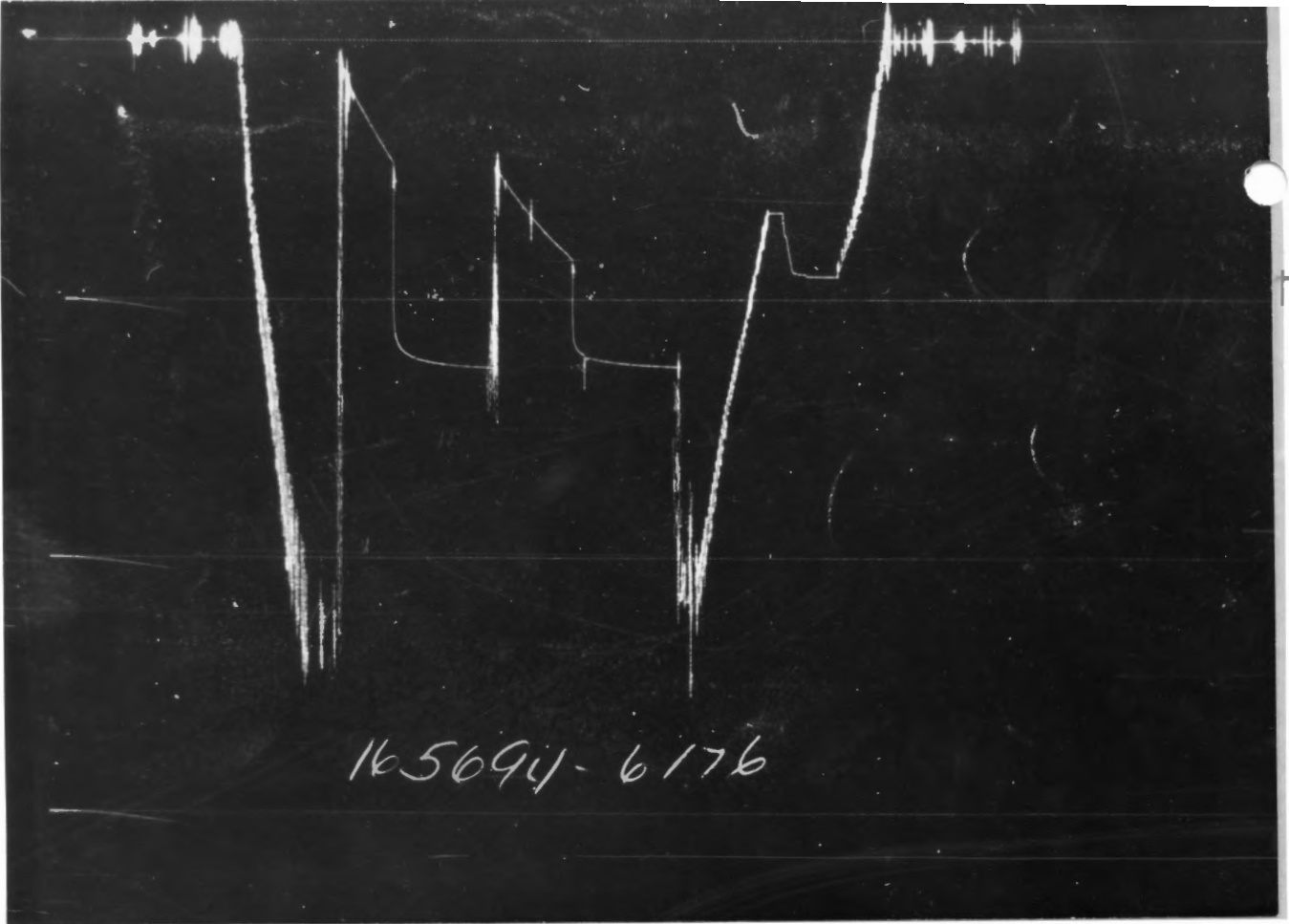
KANSAS

FLUID SAMPLE DATA				Date	11-18-76 <th>Ticket Number</th> <td>165694 </td>	Ticket Number	165694
Sampler Pressure _____ P.S.I.G. at Surface	Recovery: Cu. Ft. Gas _____	cc. Oil _____	cc. Water _____	Kind of Job	OPEN HOLE	Halliburton District	GREAT BEND
cc. Mud _____	Tot. Liquid cc. _____	Gravity _____ ° API @ _____ ° F.	Gas/Oil Ratio _____ cu. ft./bbl.	Tester	MR. KUHN	Witness	MR. PAYNE
Recovery Water _____ @ _____ ° F. _____ ppm	Recovery Mud _____ @ _____ ° F. _____ ppm	Recovery Mud Filtrate _____ @ _____ ° F. _____ ppm	Mud Pit Sample _____ @ _____ ° F. _____ ppm	Drilling Contractor	RAINS & WILLIAMSON SM		
Mud Pit Sample Filtrate _____ @ _____ ° F. _____ ppm	Mud Weight 9.6 vis 60 sec	EQUIPMENT & HOLE DATA					
TYPE AMOUNT Depth Back Surface Bottom Cushion Ft. Pres. Valve Choke 1/4" Choke 3/4"				Formation Tested	Mississippi		
Recovered 2183 Feet of muddy salt water				Elevation	2491' Kelly bushing Ft.		
Recovered _____ Feet of				Net Productive Interval	103' Test Ft.		
Recovered _____ Feet of				All Depths Measured From	Kelly bushing		
Recovered _____ Feet of				Total Depth	4475' Ft.		
Recovered _____ Feet of				Main Hole/Casing Size	7 7/8"		
Remarks SEE PRODUCTION TEST DATA SHEET				Drill Collar Length	180' I.D.	2.25"	
				Drill Pipe Length	4173' I.D.	3.826"	
				Packer Depth(s)	4367-4372' Ft.		
				Depth Tester Valve	4358' Ft.		
				TEMPERATURE			
Gauge No. 6176		Gauge No. 6175		Gauge No.		TIME	
Depth: 4363 Ft.		Depth: 4471 Ft.		Depth: Ft.			
12 Hour Clock		12 Hour Clock		Hour Clock		Tool A.M.	
Blanked Off NO		Blanked Off YES		Blanked Off		Opened 1740 P.M.	
Actual 134 °F.		Pressures		Pressures		Opened A.M.	
		Pressures		Pressures		Bypass 2055 P.M.	
		Field	Office	Field	Office	Field	Office
Initial Hydrostatic			2196	2213	2251	Reported	Computed
Flow Initial			48	40	115	Minutes	Minutes
Flow Final			474	506	525	30	31
Closed in			1265	1316	1317	60	58
Flow Initial			491	506	541		
Flow Final			847	890	897	45	45
Closed in			1261	1316	1310	60	61
Flow Initial							
Flow Final							
Closed in							
Final Hydrostatic			2167	2213	2232		

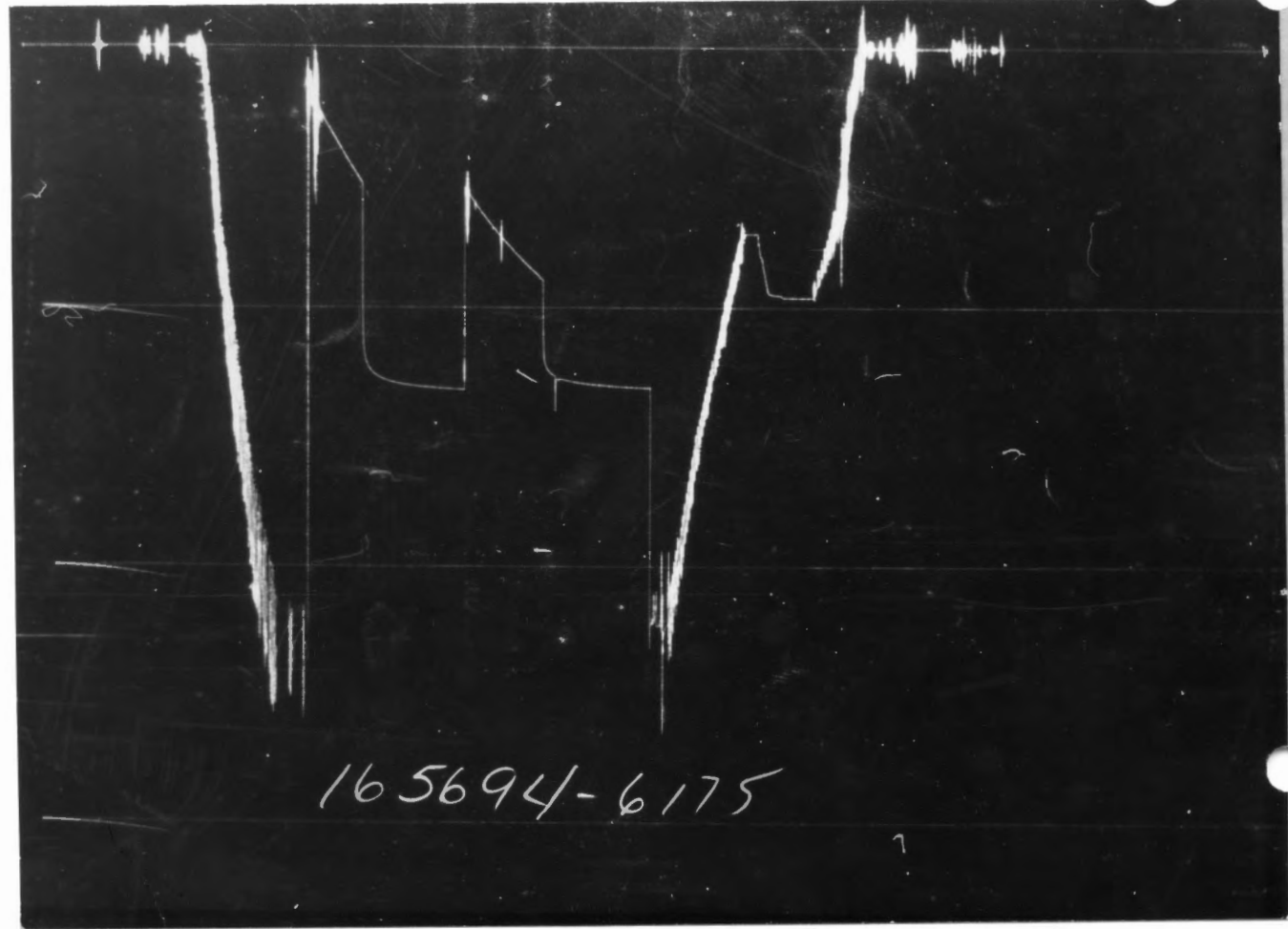
Gauge No.		6176		Depth		4363'		Clock No.		13851		12 hour		Ticket No.		165694	
First Flow Period		Closed In Pressure		Second Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period		Closed In Pressure		Third Flow Period	
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0	.0000	48	.0000	474	.0000	491	.0000	.0000	847	.0000	847						
1	.0407*	190	.0136**	1157	.0606	578	.0339***	.0339***	1209	.0339***	1209						
2	.0745	250	.0407	1202	.1212	657	.0611	.0611	1228	.0611	1228						
3	.1084	308	.0678	1221	.1818	728	.0882	.0882	1233	.0882	1233						
4	.1423	366	.0949	1232	.2424	791	.1154	.1154	1238	.1154	1238						
5	.1761	422	.1220	1240	.3030	847	.1425	.1425	1243	.1425	1243						
6	.2100	474	.1491	1245			.1697	.1697	1246	.1697	1246						
7			.1762	1250			.1968	.1968	1249	.1968	1249						
8			.2033	1253			.2240	.2240	1252	.2240	1252						
9			.2304	1255			.2511	.2511	1253	.2511	1253						
10			.2575	1258			.2783	.2783	1255	.2783	1255						
11			.2847	1260			.3054	.3054	1257	.3054	1257						
12			.3118	1262			.3326	.3326	1258	.3326	1258						
13			.3389	1263			.3597	.3597	1259	.3597	1259						
14			.3660	1264			.3869	.3869	1260	.3869	1260						
15			.3930	1265			.4140	.4140	1261	.4140	1261						
Gauge No.		6175		Depth		4471'		Clock No.		7098		12 hour					
Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\text{Log } \frac{t + \theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.	$\text{Log } \frac{t + \theta}{\theta}$	Time Defl. .000"	PSIG Temp. Corr.
0	.0000	115	.0000	525	.0000	541	.0000	.0000	897	.0000	897						
1	.0412*	238	.0137**	1207	.0614	630	.0343***	.0343***	1259	.0343***	1259						
2	.0756	302	.0412	1255	.1228	706	.0617	.0617	1276	.0617	1276						
3	.1100	357	.0686	1272	.1842	777	.0891	.0891	1281	.0891	1281						
4	.1443	417	.0961	1285	.2456	841	.1165	.1165	1286	.1165	1286						
5	.1787	470	.1235	1291	.3070	897	.1439	.1439	1291	.1439	1291						
6	.2130	525	.1510	1297			.1713	.1713	1295	.1713	1295						
7			.1784	1301			.1987	.1987	1297	.1987	1297						
8			.2059	1304			.2261	.2261	1299	.2261	1299						
9			.2333	1307			.2535	.2535	1301	.2535	1301						
10			.2608	1310			.2810	.2810	1304	.2810	1304						
11			.2882	1311			.3084	.3084	1305	.3084	1305						
12			.3157	1313			.3358	.3358	1306	.3358	1306						
13			.3431	1315			.3632	.3632	1308	.3632	1308						
14			.3706	1316			.3906	.3906	1309	.3906	1309						
15			.3980	1317			.4180	.4180	1310	.4180	1310						
Reading Interval		5		4		9		4		4		Minutes					
REMARKS: *First interval is equal to 6 minutes. ** = 2 minutes. *** = 5 minutes.																	

	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing				
Reversing Sub				
Water Cushion Valve				
Drill Pipe	4 1/2"	3.826"	4173'	
Drill Collars	6 1/4"	2.25"	180'	
Handling Sub & Choke Assembly				
Dual CIP Valve	5"	.87"	70"	4353'
Dual CIP Sampler				
Hydro-Spring Tester	5"	.75"	60.21"	4358'
Multiple CIP Sampler				
Extension Joint				
AP Running Case	5"	3.06"	49.63"	4363'
Hydraulic Jar				
VR Safety Joint				
Pressure Equalizing Crossover				
Packer Assembly	6 3/4"	1.53"	48.89"	4367'
Distributor				
Packer Assembly	6 3/4"	1.53"	48.89"	4372'
Flush Joint Anchor	5"	3"	31'	
Pressure Equalizing Tube				
Blanked-Off B.T. Running Case				
Drill Collars	6 1/4"	2.25"	60'	
Anchor Pipe Safety Joint				
Packer Assembly				
Distributor				
Packer Assembly				
Anchor Pipe Safety Joint				
Side Wall Anchor				
Drill Collars				
Flush Joint Anchor	5"	3"	7'	
Blanked-Off B.T. Running Case	5"	2.44"	48.73"	4471'
Total Depth				4475'

PRESSURE



TIME



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