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 9.4 vis 43 sec

Date	11-28-78	Ticket Number 524677
Kind of Job	OPEN HOLE	Halliburton District WINFIELD
Tester	MR. O'NEAL	Witness MR. WHITE
Drilling Contractor	STERLING DRILLING COMPANY	BC S

EQUIPMENT & HOLE DATA

Formation Tested	Mississippi
Elevation	1430' KB Ft.
Net Productive Interval	5' Ft.
All Depths Measured From	Kelly Bushing
Total Depth	3210' Ft.
Main Hole/Casing Size	7 7/8"
Drill Collar Length	300' I.D. 2.25"
Drill Pipe Length	426'WP-2407' I.D. 2.764" - 3.826"
Packer Depth(s)	3162' Ft.
Depth Tester Valve	3148' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve 3143' Surface Choke ¼" Bottom Choke 3/4"

Recovered 120 Feet of Drilling mud
Recovered Feet of Gas to surface
Recovered Feet of
Recovered Feet of
Recovered Feet of

Mea. From Tester Valve

Remarks Unable to perform calculation service, insufficient closure of final closed in pressure buildup curve for a reliable extrapolation. Charts indicate possibly more than one producing zone in tested interval.

SEE PRODUCTION TEST DATA SHEET.

TEMPERATURE	Gauge No. 7505 Depth: 3150' Ft.	Gauge No. 7504 Depth: 3206' Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 0945 A.M. P.M.
Est. °F. 3205'	Blanked Off No	Blanked Off Yes	Blanked Off	Opened A.M. P.M.
Actual 121 °F.	Pressures	Pressures	Pressures	Bypass 1330

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			1510	1545	1543				
First Period	Flow Initial		34	40	59			—	—
	Flow Final		90	91	110			30	29
	Closed in		1112	1104	1132			45	46
Second Period	Flow Initial		60	60	79			—	—
	Flow Final		72	71	94			90	89
	Closed in		1052	1044	1075			60	61
Third Period	Flow Initial							—	—
	Flow Final								
	Closed in								
Final Hydrostatic			1482	1505	1517			—	—

Legal Location Sec. - Twp. - Rng. 23 - 22S - 3W
Lease Name STRUEBY
Well No. 1
Test No. 1
Tested Interval 3162' - 3210'
Field Area
County HARVEY
State KANSAS
Lease Owner/Company Name VINCENT OIL CORPORATION

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 SM 9/76

5

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 524677

Gas gravity _____ Oil gravity _____ GOR _____

Spec. gravity _____ Chlorides _____ ppm Res. _____ @ _____ °F Page 1

INDICATE TYPE AND SIZE OF GAS MEASURING DEVICE USED Merla

Date Time a.m. p.m.	Choke Size	Surface Pressure psi	Gas Rate MCF	Liquid Rate BPD	Remarks
0130					Called out
0400					On location
0700					Made up tool
0800					Ready to start in hole
0945					Opened tool with a strong blow
0949					Gas to surface
0954	½"	6#	86.3		
0959	"	20	177		
1004	"	26	211		
1009	"	29	226		
1014	"	29.5	228		
1015					Closed tool
1100					Opened tool
1105	"	29	226		
1110	"	32	243		
1115	"	31	237		
1120	"	29	226		
1125	"	27.5	219		
1130	"	26	211		
1135	"	25	205		
1140	"	24	200		
1145	"	23	193		
1150	"	22	189		
1155	"	21.5	186		
1200	"	21	183		

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 SM 8-67

5

Casing perfs.____ Bottom choke____ Surf. temp____ °F Ticket No. 524677

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
1205	½"	20	177		
1210	"	20	177		
1215	"	19	171		
1220	"	19	171		
1225	"	18.5	168		
1230	"	18	166		Closed tool
1330					Started out of hole

PRODUCTION TEST DATA

Gauge No. 7505	Depth 3150'	Clock No. 13664	12 hour	Ticket No. 524677

	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	.0000	34	.0000		90	.0000	60	.0000		72					
1	.0276	55*	.0202		827	.0547	67**	.0272		689					
2	.0621	66	.0404		970	.1161	70	.0544		802					
3	.0966	80	.0607		1020	.1776	71	.0816		836					
4	.1310	57	.0809		1038	.2391	74	.1089		867					
5	.1655	89	.1011		1049	.3006	75	.1361		901					
6	.2000	90	.1213		1056	.3621	75	.1633		928					
7			.1415		1061	.4236	74	.1905		951					
8			.1617		1068	.4850	74	.2177		970					
9			.1820		1076	.5465	73	.2449		988					
10			.2022		1085	.6080	72	.2721		1004					
11			.2224		1091			.2993		1016					
12			.2426		1097			.3266		1027					
13			.2628		1102			.3538		1036					
14			.2830		1106			.3810		1044					
15			.3100		1112*			.4150		1052***					

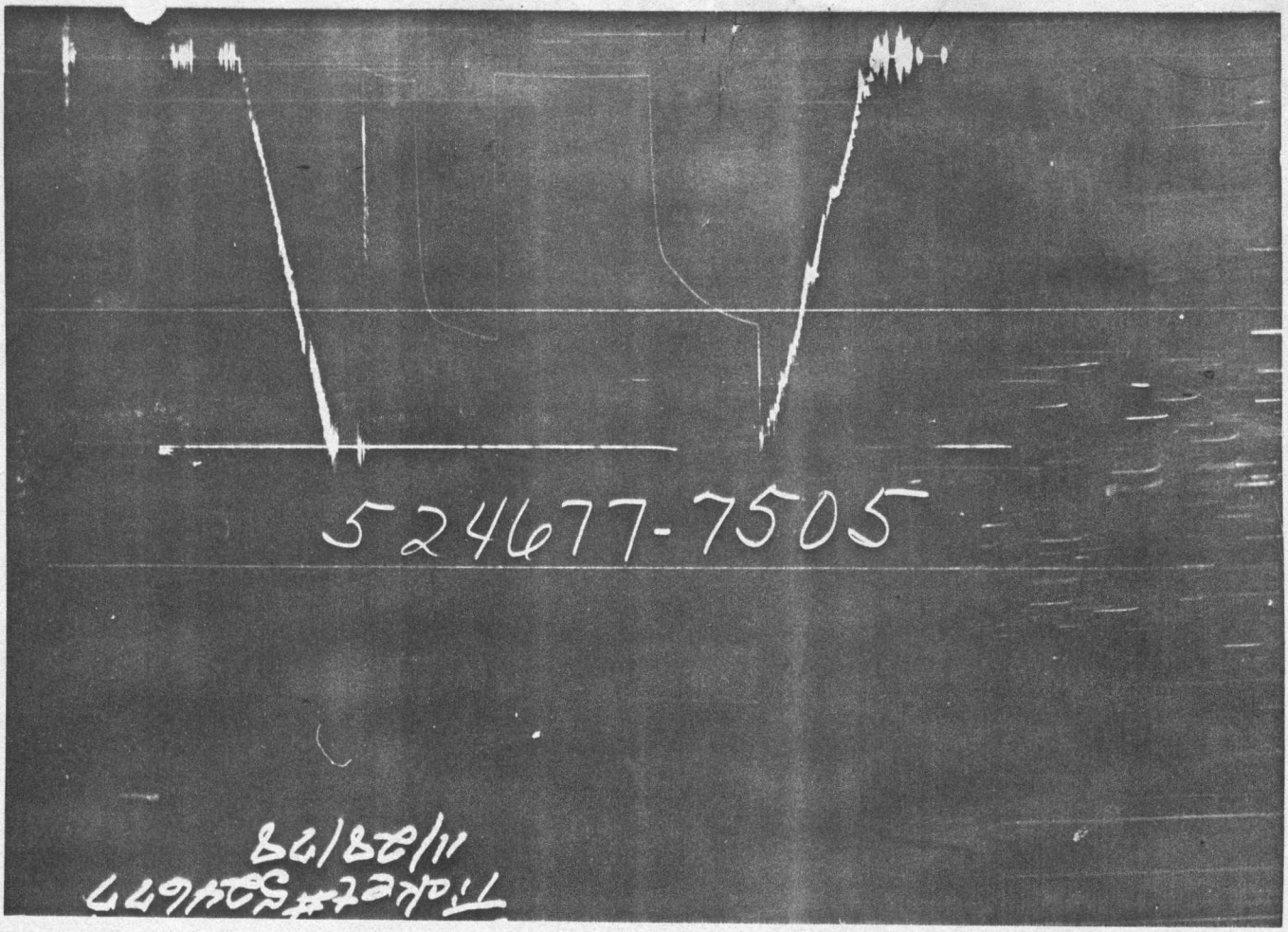
Gauge No. 7504	Depth 3206'	Clock No. 13662	12 hour

0	.0000	59	.0000		110	.0000	79	.0000		94					
1	.0274	79*	.0201		875	.0544	89**	.0269		718					
2	.0618	88	.0402		1001	.1156	92	.0538		828					
3	.0961	100	.0603		1044	.1767	94	.0807		862					
4	.1304	108	.0803		1061	.2379	96	.1075		894					
5	.1647	109	.1004		1071	.2991	97	.1344		927					
6	.1990	110	.1205		1077	.3603	97	.1613		954					
7			.1406		1084	.4215	96	.1882		976					
8			.1607		1091	.4826	95	.2151		995					
9			.1808		1099	.5438	94	.2420		1012					
10			.2009		1105	.6050	94	.2689		1026					
11			.2210		1112			.2957		1039					
12			.2410		1118			.3226		1050					
13			.2611		1123			.3495		1059					
14			.2812		1128			.3764		1066					
15			.3080		1132*			.4100		1075***					
Reading Interval		5		3			9		4						Minutes

REMARKS: *Interval = 4 minutes **Interval = 8 minutes ***Interval = 5 minutes

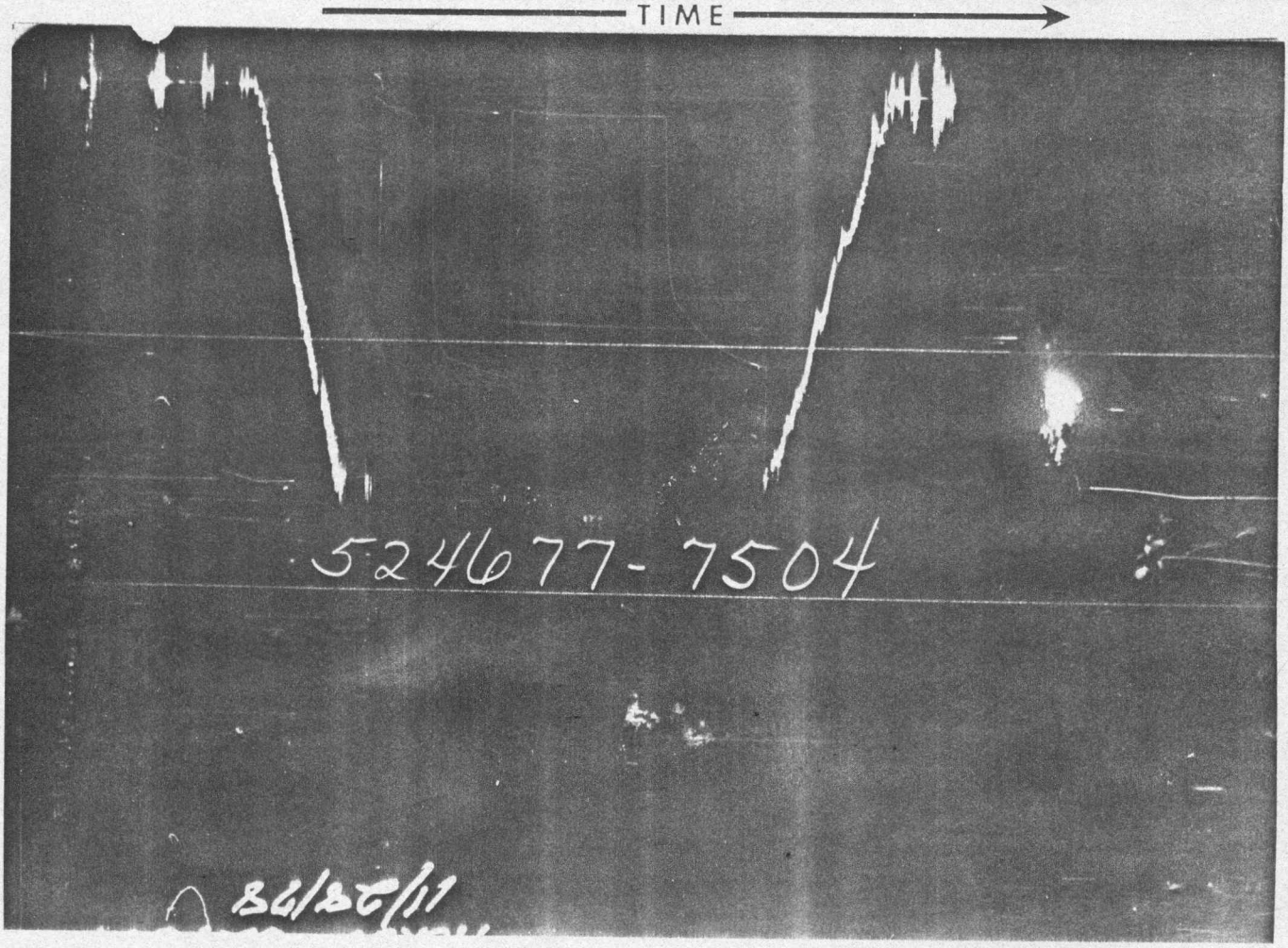
5

SPECIAL PRESSURE 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 9.5 vis 42 sec

Date 11-29-78 Ticket Number 524678
Kind of Job OPEN HOLE TEST Halliburton District WINFIELD
Tester R. O'NEAL Witness R. WHITE
Drilling Contractor STERLING DRILLING COMPANY TJB S

EQUIPMENT & HOLE DATA

Formation Tested Mississippi
Elevation 1430' KB Ft.
Net Productive Interval 6' Ft.
All Depths Measured From Kelly Bushing
Total Depth 3225' Ft.
Main Hole/Casing Size 7 7/8"
Drill Collar Length 300' I.D. 2.25"
Drill Pipe Length 2454' - 426'WP I.D. 3.826"-2.764"WP
Packer Depth(s) 3212' Ft.
Depth Tester Valve 3195' Ft.

Cushion TYPE AMOUNT Ft. Depth Back Pres. Valve 3190' Surface Choke Bottom Choke

Recovered 90 Feet of drilling mud.
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Mea. From Tester Valve

Remarks SEE PRODUCTION TEST DATA SHEET . . .

TEMPERATURE	Gauge No. 7505 Depth: 3197 Ft.	Gauge No. 7504 Depth: 3221 Ft.	Gauge No. Depth: Ft.	TIME
	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 2341 A.M. P.M.
Est. °F.	Blanked Off NO	Blanked Off YES	Blanked Off	
3220 Actual 117 °F.	Pressures	Pressures	Pressures	Opened A.M. Bypass 0241 P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic			1545	1575	1563				
First Period	Flow Initial		53	70	66			—	—
	Flow Final		61	70	74			45	44
	Closed in		734	743	747			45	46
Second Period	Flow Initial		60	70	66			—	—
	Flow Final		68	80	80			45	45
	Closed in		602	613	616			45	45
Third Period	Flow Initial							—	—
	Flow Final								
	Closed in								
Final Hydrostatic			1538	1565	1553			—	—

Legal Location Sec. - Twp. - Rng. 23 - 22S - 3W
Lease Name STRUEBY
Well No. 1
Test No. 2
Tested Interval 3212' - 3225'
Field Area
County HARVEY
State KANSAS
Lease Owner/Company Name VINCENT OIL CORPORATION

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. 524678

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
2110					On location.
2140					Made up tool.
2220					Started in hole.
2337					Tool opened with no packer seat, picked
					up off bottom and filled hole.
2341					Opened tool, packer held, weak blow
					building to a strong blow.
0026					Closed tool.
0111					Opened tool with a strong blow.
0156					Closed tool.
0241					Started out of hole.
0400					Out of hole.

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

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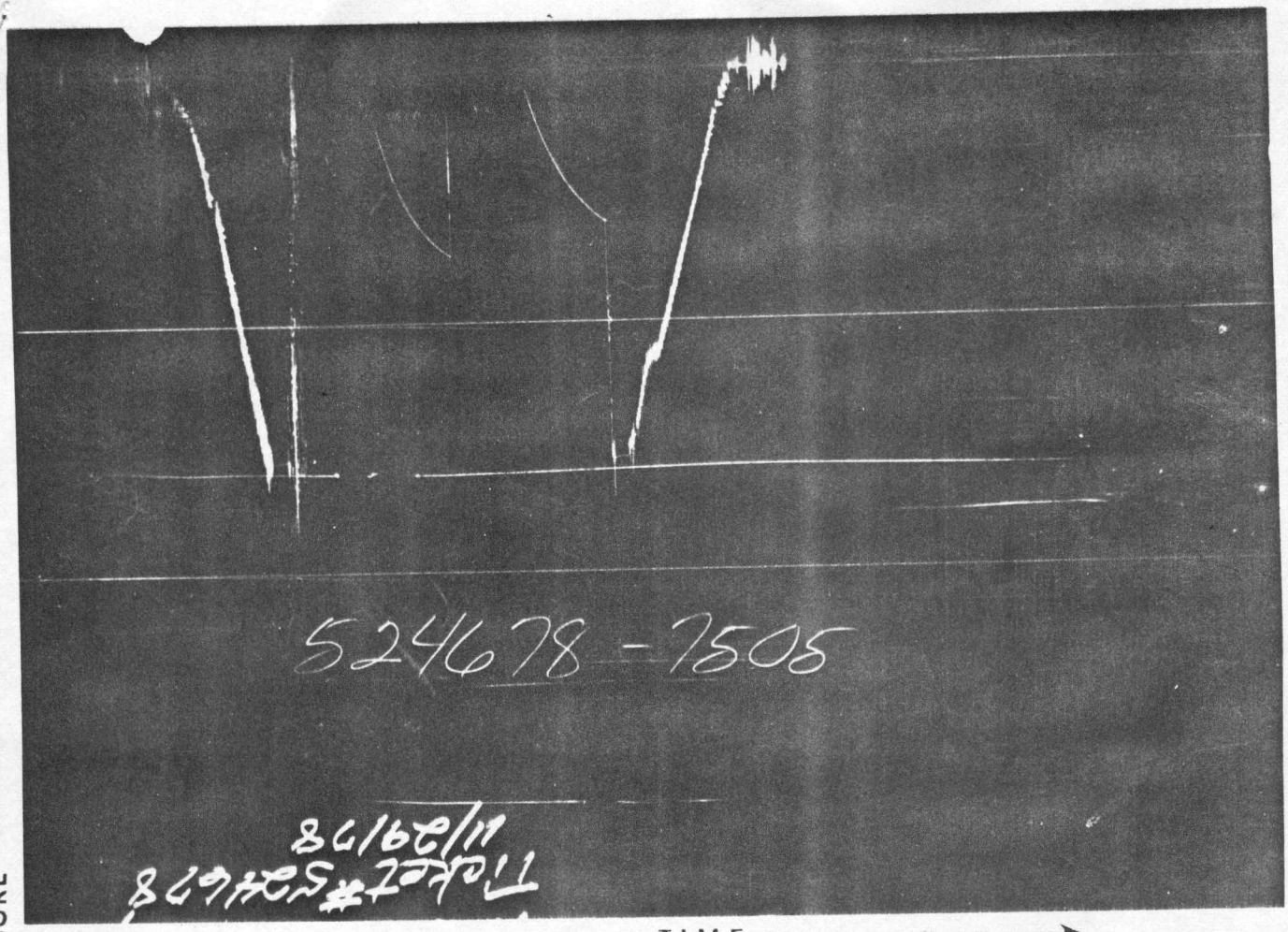
LITTLE'S 96672 5M 8/74

Gauge No. 7505				Depth 3197			Clock No. 13664			12 hour	Ticket No. 524678			
	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	.0000	53	.0000		61	.0000	60	.0000		68					
1	.0612*	56	.0272**		201	.0618	66	.0205		130					
2	.1087	58	.0476		280	.1236	66	.0409		195					
3	.1563	59	.0680		350	.1854	66	.0614		250					
4	.2038	59	.0884		412	.2472	67	.0818		302					
5	.2514	61	.1089		466	.3090	68	.1023		345					
6	.2990	61	.1293		512			.1228		386					
7			.1497		549			.1432		423					
8			.1701		585			.1637		454					
9			.1905		614			.1841		484					
10			.2109		639			.2046		508					
11			.2313		663			.2251		530					
12			.2517		684			.2455		550					
13			.2721		702			.2660		570					
14			.2925		718			.2864		587					
15			.3130		734			.3070		602					
Gauge No. 7504				Depth 3221			Clock No. 13662			12 hour					
0	.0000	66	.0000		74	.0000	66	.0000		80					
1	.0605*	68	.0268**		215	.0614	75	.0203		146					
2	.1076	70	.0469		298	.1228	78	.0405		209					
3	.1547	71	.0669		363	.1842	78	.0608		263					
4	.2018	72	.0870		426	.2456	79	.0810		315					
5	.2489	73	.1071		481	.3070	80	.1013		361					
6	.2960	74	.1272		525			.1216		400					
7			.1473		564			.1418		434					
8			.1673		598			.1621		467					
9			.1874		627			.1823		497					
10			.2075		655			.2026		521					
11			.2276		678			.2229		542					
12			.2477		698			.2431		564					
13			.2677		715			.2634		583					
14			.2878		732			.2836		600					
15			.3080		747			.3040		616					
Reading Interval		7		3			9		3						Minutes

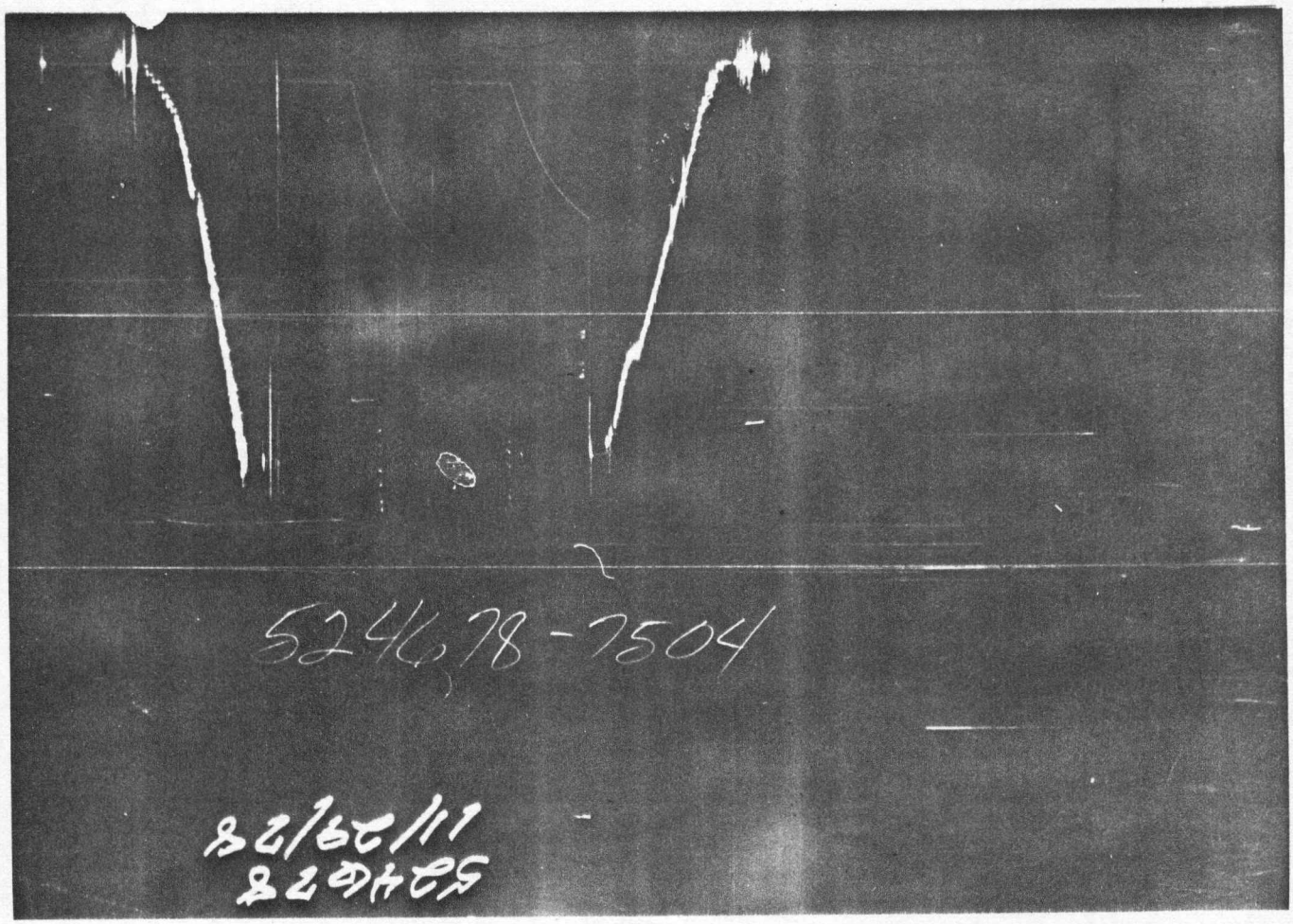
REMARKS: * - first interval is equal to 9 minutes, ** - 4 minutes.

SPECIAL PRESSURE 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 9.4 vis 43 sec

Date	11-29-78	Ticket Number	524679
Kind of Job	OPEN HOLE	Halliburton District	WINFIELD
Tester	O'NEAL	Witness	WHITE
Drilling Contractor	STERLING DRILLING COMPANY NM S		

EQUIPMENT & HOLE DATA

Formation Tested	Mississippi	
Elevation	1430' K.B.	Ft.
Net Productive Interval	3'	Ft.
All Depths Measured From	Kelly Bushing	
Total Depth	3242'	Ft.
Main Hole/Casing Size	7 7/8"	
Drill Collar Length	300' I.D. 2.25"	
Drill Pipe Length	2466' I.D. 3.826"	
Packer Depth(s)	3224' - 3230'	Ft.
Depth Tester Valve	3207'	Ft.

Cushion TYPE NONE AMOUNT _____ Ft. Depth Back Pres. Valve 3202' Surface Choke 1/4" Bottom Choke 3/4"

Recovered 45' Feet of drilling mud

Recovered Feet of

Recovered Feet of

Recovered Feet of

Recovered Feet of

Mea. From Tester Valve

Remarks SEE PRODUCTION TEST DATA SHEET...

TEMPERATURE	Gauge No. 7505 Depth: 3209' Ft.	Gauge No. 7504 Depth: 3239' Ft.	Gauge No. Depth: Ft.	TIME
Est. °F.	12 Hour Clock	12 Hour Clock	Hour Clock	Tool Opened 1513 A.M. P.M.
	Blanked Off NO	Blanked Off YES	Blanked Off	
3237' @ Actual 106 °F.	Pressures	Pressures	Pressures	Opened Bypass 1743 A.M. P.M.

		Field	Office	Field	Office	Field	Office	Reported Minutes	Computed Minutes
Initial Hydrostatic		-	1548	1555	1560				
First Period	Flow Initial	-	10	20	20			—	—
	Flow Final	-	19	30	29			30	30
	Closed in	-	684	683	693			45	44
Second Period	Flow Initial	-	26	30	35			—	—
	Flow Final	-	30	40	40			30	31
	Closed in	-	606	613	616			45	45
Third Period	Flow Initial							—	—
	Flow Final								
	Closed in								
Final Hydrostatic		-	1513	1525	1525			—	—

Legal Location Sec. - Twp. - Rng. 23 - 22S - 3W

Lease Name STRUEBY

Well No. 1

Test No. 3

Tested Interval 3230' - 3242'

Field Area -

County HARVEY

State KANSAS

Lease Owner/Company Name VINCENT OIL CORPORATION

FORM 181-R2—PRINTED IN U.S.A.

FORMATION TEST DATA

LITTLE'S 102548 5M 9/76

5

Casing perfs. _____ Bottom choke _____ Surf. temp _____ °F Ticket No. 524679

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
1325					Making up the tool.
1355					Started in the hole.
1513					Tool opened for the first flow with a weak blow.
1543					Took a 45 minute first closed in.
1628					Tool reopened with a weak blow.
1658					Took a 45 minute second closed in.
1743					Started out of the hole.
1910					Out of the hole.

FORM 182-R1—PRINTED IN U.S.A.

PRODUCTION TEST DATA

LITTLE'S 96672 5M 8/74

Gauge No.	7505	Depth	3209'	Clock No.	13664	12 hour	Ticket No.	524679

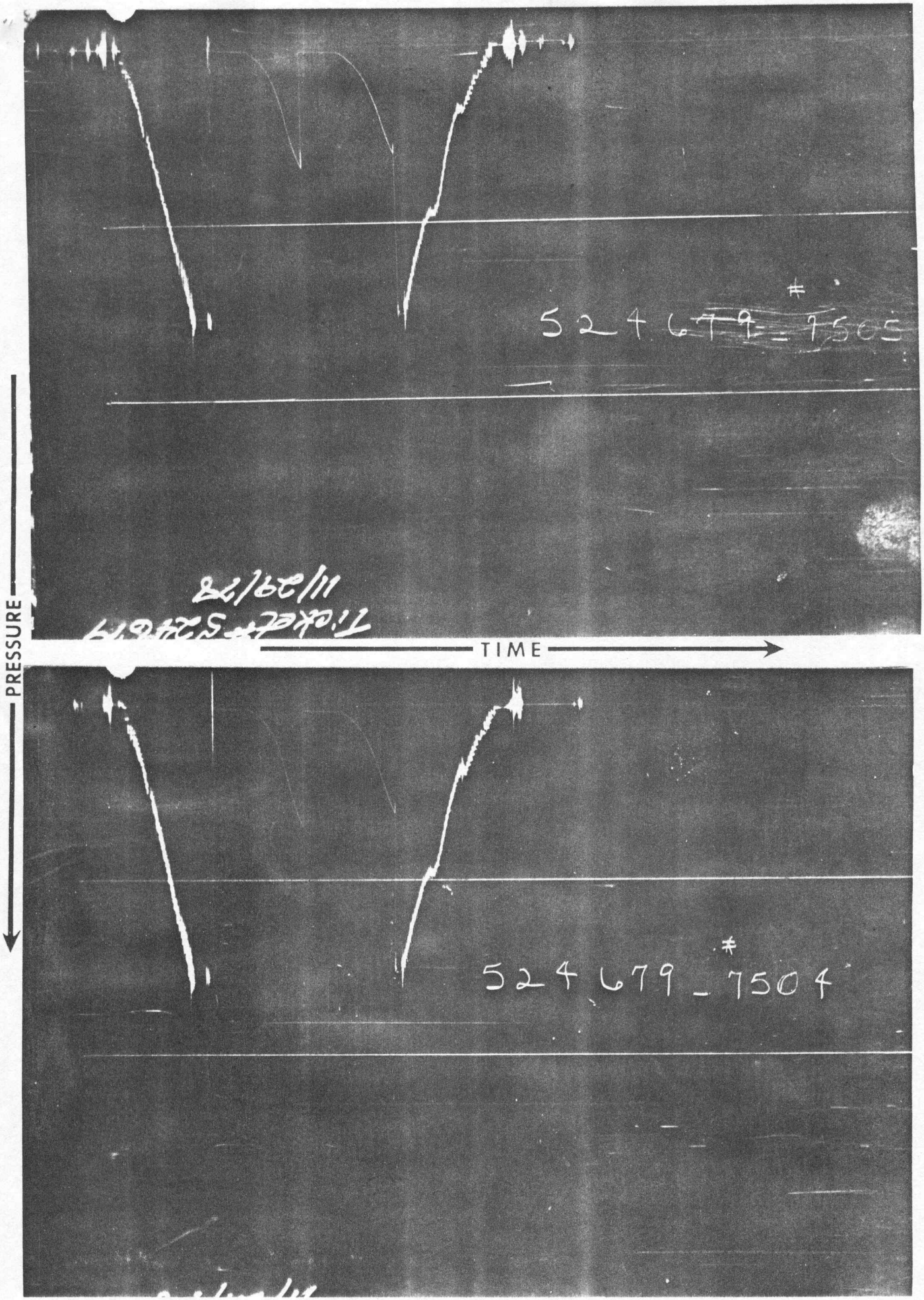
	First Flow Period		First Closed In Pressure			Second Flow Period		Second Closed In Pressure			Third Flow Period		Third Closed In Pressure		
	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	PSIG Temp. Corr.	Time Defl. .000"	PSIG Temp. Corr.	Time Defl. .000"	$\log \frac{t+\theta}{\theta}$	PSIG Temp. Corr.
0	.000	10	.000		19	.000	26	.000		30					
1	.034	12	.0275		33	.0406	25*	.0342		50**					
2	.068	15	.0549		54	.0745	27	.0616		71					
3	.102	16	.0824		80	.1084	27	.0890		99					
4	.136	17	.1098		119	.1423	28	.1164		133					
5	.170	18	.1373		167	.1761	29	.1437		175					
6	.204	19	.1647		232	.2100	30	.1711		232					
7			.1922		322			.1985		300					
8			.2196		432			.2259		380					
9			.2471		531			.2532		463					
10			.2745		623			.2806		546					
11			.3020		684			.3080		606					
12															
13															
14															
15															

Gauge No.	7504	Depth	3239'	Clock No.	13662	hour	12

0	.000	20	.000		29	.000	35	.000		40					
1	.0343	23	.0271		47	.0406	36*	.0340		63**					
2	.0687	24	.0542		69	.0745	37	.0612		85					
3	.1030	25	.0813		97	.1084	37	.0884		111					
4	.1373	26	.1084		131	.1423	38	.1156		146					
5	.1717	28	.1355		181	.1761	39	.1428		192					
6	.2060	29	.1625		249	.2100	40	.1700		247					
7			.1896		338			.1972		319					
8			.2167		446			.2244		399					
9			.2438		547			.2516		484					
10			.2709		630			.2788		560					
11			.2980		693			.3060		616					
12															
13															
14															
15															
Reading Interval	5		4			5		4							Minutes

REMARKS: * INTERVAL = 6 MINUTES. ** INTERVAL = 5 MINUTES.

SPECIAL PRESSURE DATA



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