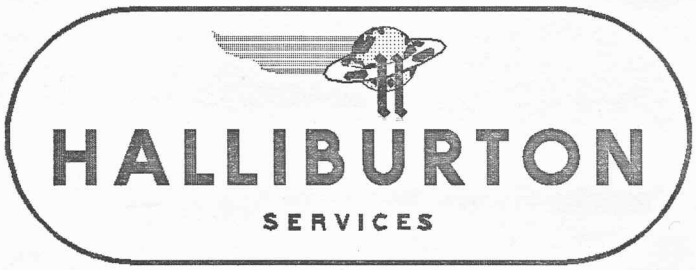


TICKET NO. 65006200

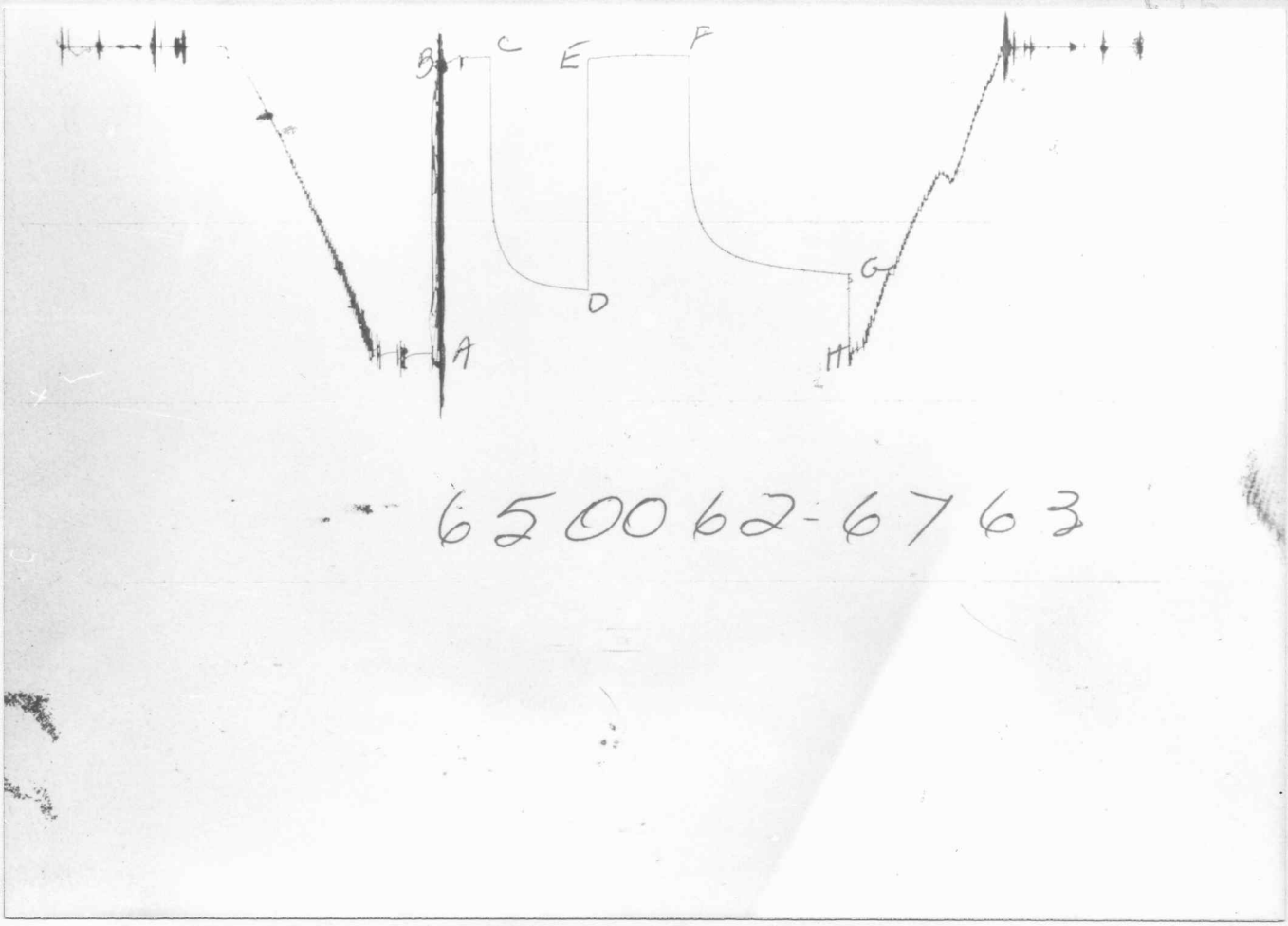
19-NOV-82

PRATT

FORMATION TESTING SERVICE REPORT

LEASE NAME: ENDICOTT	WELL NO.: 1-A	TEST NO.: 1	TESTED INTERVAL: 3739.' - 3757.'	LEASE OWNER/COMPANY NAME: CINCO EXPLORATION COMPANY	
LEGAL LOCATION SEC. - TWP. - RNG.: 23-27-6	FIELD AREA	COUNTY: KINGMAN	STATE: KANSAS	SM-OR	

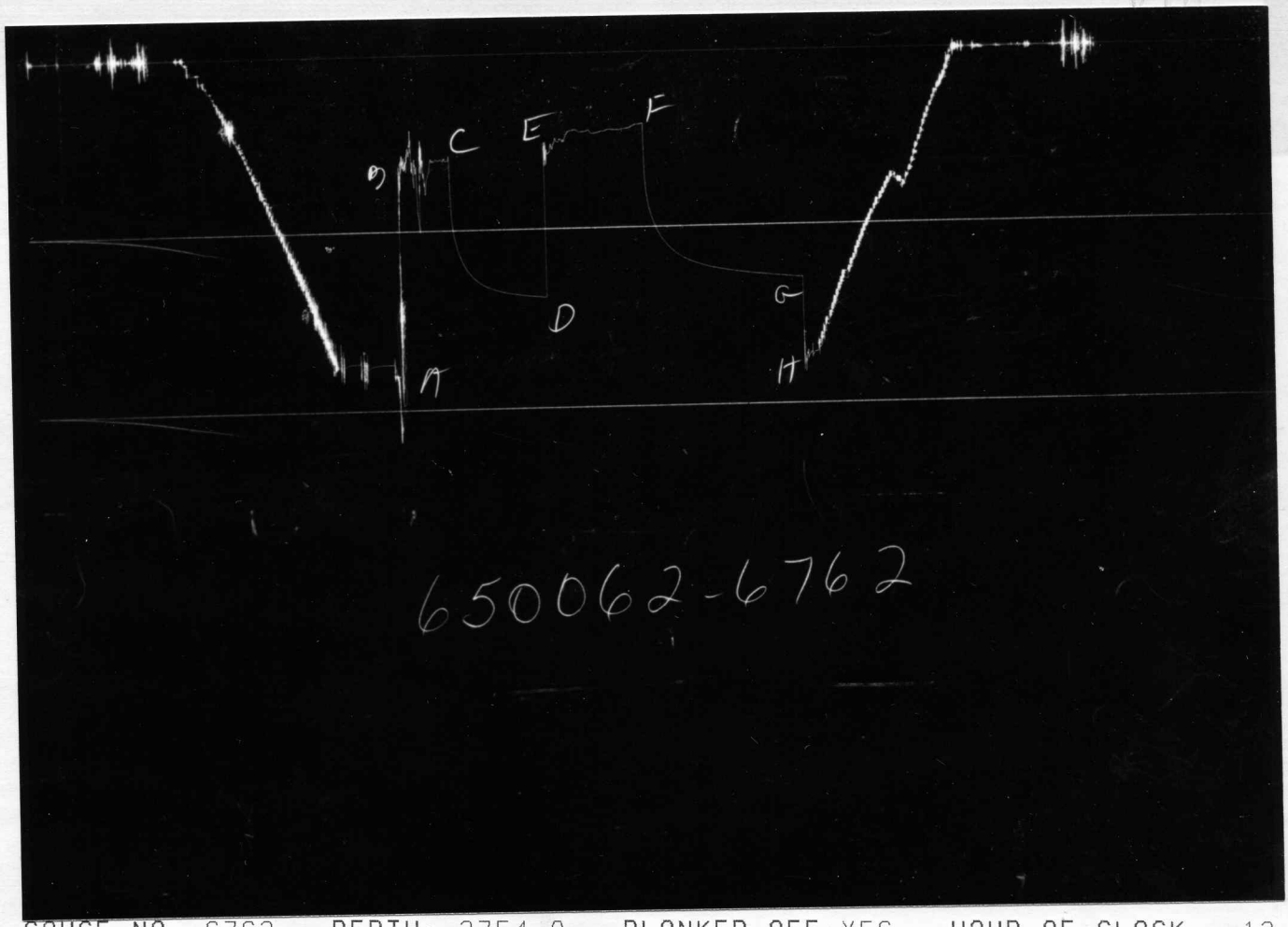
23-27-6W



650062-6763

GAUGE NO: 6763 DEPTH: 3718.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1698	1711.5			
B	INITIAL FIRST FLOW	69	91.4	30.0	30.6	F
C	FINAL FIRST FLOW	69	59.1			
C	INITIAL FIRST CLOSED-IN	69	59.1	60.0	58.1	C
D	FINAL FIRST CLOSED-IN	1366	1360.4			
E	INITIAL SECOND FLOW	69	73.6	60.0	60.7	F
F	FINAL SECOND FLOW	55	51.5			
F	INITIAL SECOND CLOSED-IN	55	51.5	95.0	95.7	C
G	FINAL SECOND CLOSED-IN	1269	1272.0			
H	FINAL HYDROSTATIC	1684	1739.9			



GAUGE NO: 6762 DEPTH: 3754.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1731.7			
B	INITIAL FIRST FLOW		620.6	30.0	30.6	F
C	FINAL FIRST FLOW		565.4			
C	INITIAL FIRST CLOSED-IN		565.4	60.0	58.1	C
D	FINAL FIRST CLOSED-IN		1367.7			
E	INITIAL SECOND FLOW		499.4	60.0	60.7	F
F	FINAL SECOND FLOW		400.1			
F	INITIAL SECOND CLOSED-IN		400.1	95.0	95.7	C
G	FINAL SECOND CLOSED-IN		1279.6			
H	FINAL HYDROSTATIC		1741.9			

EQUIPMENT & HOLE DATA

FORMATION TESTED: MISSISSIPPI
NET PAY (ft):
GROSS TESTED FOOTAGE: 18.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 0
TOTAL DEPTH (ft): 3757.0
PACKER DEPTH(S) (ft): 3733, 3739
FINAL SURFACE CHOKE (in): 0.250
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.10
MUD VISCOSITY (sec): 40
ESTIMATED HOLE TEMP. (°F): 107
ACTUAL HOLE TEMP. (°F): 110 @ 3753.0 ft

TICKET NUMBER: 65006200

DATE: 11-12-82 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: PRATT

TESTER: MESSER

WITNESS: CHARLIE SHANK

DRILLING CONTRACTOR: RENOLDS DRILLING

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
PIT	@ °F	9000 ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm
	@ °F	ppm

SAMPLER DATA

Psig AT SURFACE:
cu.ft. OF GAS:
cc OF OIL:
cc OF WATER:
cc OF MUD:
TOTAL LIQUID cc:

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): @ °F
GAS/OIL RATIO (cu.ft. per bbl):
GAS GRAVITY:

CUSHION DATA

TYPE	AMOUNT	WEIGHT

RECOVERED:

120' OF MUD

MEASURED FROM TESTER VALVE

REMARKS:

CHARTS INDICATE PARTIAL PLUGGING OF ANCHOR PERFORATIONS THROUGHOUT FLOW PERIODS.

TYPE & SIZE MEASURING DEVICE: MERLA ORIFICE WELL TESTER | TICKET NO: 65006200

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
11-12-82					
0200					RECEIVED CALL TO BE READ @ 0430.
0400					ON LOCATION-RIG JUST STARTED
					OUT.
0730					RIG OUT-STARTED MAKING UP TOOL
0835					MADE UP TOOL AND IN TABLE
0845					TOOL STARTED IN HOLE
1115					OPENED TOOL-SLID 8' WITH A
					STRONG BLOW
1118					FLOOR VALVE OPEN-GAS TO SURFACE
1125	3/4"	15	331		
1135	3/4	11	274		
1145	3/4	10.5	265		CLOSED TOOL
1245	3/4	15	331		OPENED TOOL
1255	3/4	15	331		
1305	3/4	11	274		
1315	3/4	9	245		
1325	3/4	8	227		
1335	3/4	7.5	219		
1345	3/4	7	211		CLOSED TOOL
1520					TOOL STARTED OFF BOTTOM

TICKET NO: 65006200	GAUGE NO: 6763
CLOCK NO: 10288 HOUR: 12	DEPTH: 3718.0

HALLIBURTON SERVICES

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	91.4			
C	2	30.6	59.1	-32.3		
			FIRST CLOSED-IN			
C	1	0.0	59.1			
	2	4.0	1077.1	1018.0	3.6	0.932
	3	8.0	1167.8	1108.7	6.3	0.683
	4	12.0	1224.2	1165.1	8.6	0.550
	5	16.0	1262.4	1203.3	10.5	0.464
	6	20.0	1287.8	1228.7	12.1	0.402
	7	24.0	1305.5	1246.4	13.4	0.357
	8	28.0	1318.6	1259.5	14.6	0.321
	9	32.0	1328.7	1269.6	15.6	0.291
	10	36.0	1337.2	1278.0	16.5	0.267
	11	40.0	1342.5	1283.4	17.3	0.247
	12	44.0	1347.9	1288.8	18.0	0.229
	13	48.0	1352.2	1293.1	18.7	0.214
	14	52.0	1355.7	1296.5	19.2	0.201
	15	56.0	1359.1	1300.0	19.8	0.189
D	16	58.1	1360.4	1301.2	20.0	0.184
			SECOND FLOW			
E	1	0.0	73.6			
	2	10.0	59.1	-14.5		
	3	20.0	52.9	-6.2		
	4	30.0	51.1	-1.8		
	5	40.0	50.0	-1.1		
	6	50.0	50.0	0.0		
F	7	60.7	51.5	1.5		
			SECOND CLOSED-IN			
F	1	0.0	51.5			
	2	6.0	957.3	905.8	5.6	1.209
	3	12.0	1059.9	1008.4	10.6	0.935
	4	18.0	1116.7	1065.2	15.0	0.783
	5	24.0	1153.5	1101.9	19.0	0.681
	6	30.0	1179.3	1127.8	22.6	0.606
	7	36.0	1196.8	1145.3	25.8	0.548
	8	42.0	1209.8	1158.3	28.8	0.501
	9	48.0	1220.7	1169.2	31.5	0.462
	10	54.0	1230.2	1178.7	33.9	0.430
	11	60.0	1238.1	1186.6	36.2	0.402
	12	66.0	1245.6	1194.1	38.3	0.377
	13	72.0	1251.4	1199.9	40.2	0.355
	14	78.0	1257.7	1206.2	42.1	0.336
	15	84.0	1263.1	1211.6	43.7	0.319

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	16	90.0	1268.0	1216.4	45.3	0.304
G	17	95.7	1272.0	1220.4	46.7	0.291

REMARKS:

TICKET NO: 65006200	GAUGE NO: 6762
CLOCK NO: 2478 HOUR: 12	DEPTH: 3754.0

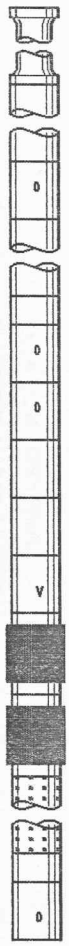
HALLIBURTON SERVICES

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	620.6			
C	2	30.6	565.4	-55.2		
			FIRST CLOSED-IN			
C	1	0.0	565.4			
	2	4.0	1083.4	518.0	3.5	0.939
	3	8.0	1181.6	616.2	6.4	0.682
	4	12.0	1234.1	668.7	8.6	0.549
	5	16.0	1271.5	706.2	10.5	0.463
	6	20.0	1296.4	731.0	12.1	0.402
	7	24.0	1313.5	748.2	13.4	0.357
	8	28.1	1325.3	759.9	14.6	0.320
	9	32.0	1335.6	770.3	15.6	0.291
	10	36.0	1343.9	778.5	16.5	0.267
	11	40.0	1348.9	783.5	17.3	0.246
	12	44.0	1354.3	788.9	18.0	0.229
	13	48.0	1359.0	793.6	18.7	0.214
	14	52.0	1362.2	796.8	19.2	0.201
	15	56.0	1366.0	800.6	19.8	0.189
D	16	58.1	1367.7	802.3	20.0	0.184
			SECOND FLOW			
E	1	0.0	499.4			
	2	10.0	479.9	-19.6		
	3	20.0	432.2	-47.6		
	4	30.0	451.8	19.6		
	5	40.0	430.7	-21.1		
	6	50.0	428.3	-2.4		
F	7	60.7	400.1	-28.2		
			SECOND CLOSED-IN			
F	1	0.0	400.1			
	2	6.0	965.7	565.5	5.6	1.212
	3	12.0	1068.1	668.0	10.6	0.934
	4	18.0	1124.0	723.9	15.0	0.783
	5	24.0	1161.6	761.5	19.0	0.682
	6	30.0	1185.6	785.5	22.6	0.607
	7	36.0	1204.3	804.1	25.8	0.548
	8	42.0	1218.2	818.1	28.8	0.501
	9	48.0	1229.3	829.1	31.5	0.462
	10	54.0	1237.8	837.7	33.9	0.430
	11	60.0	1246.0	845.9	36.2	0.401
	12	66.0	1253.0	852.9	38.3	0.377
	13	72.0	1259.1	859.0	40.2	0.355
	14	78.0	1265.2	865.1	42.0	0.336
	15	84.0	1270.4	870.3	43.7	0.319

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	16	90.0	1275.4	875.3	45.3	0.304
G	17	95.7	1279.6	879.4	46.7	0.291

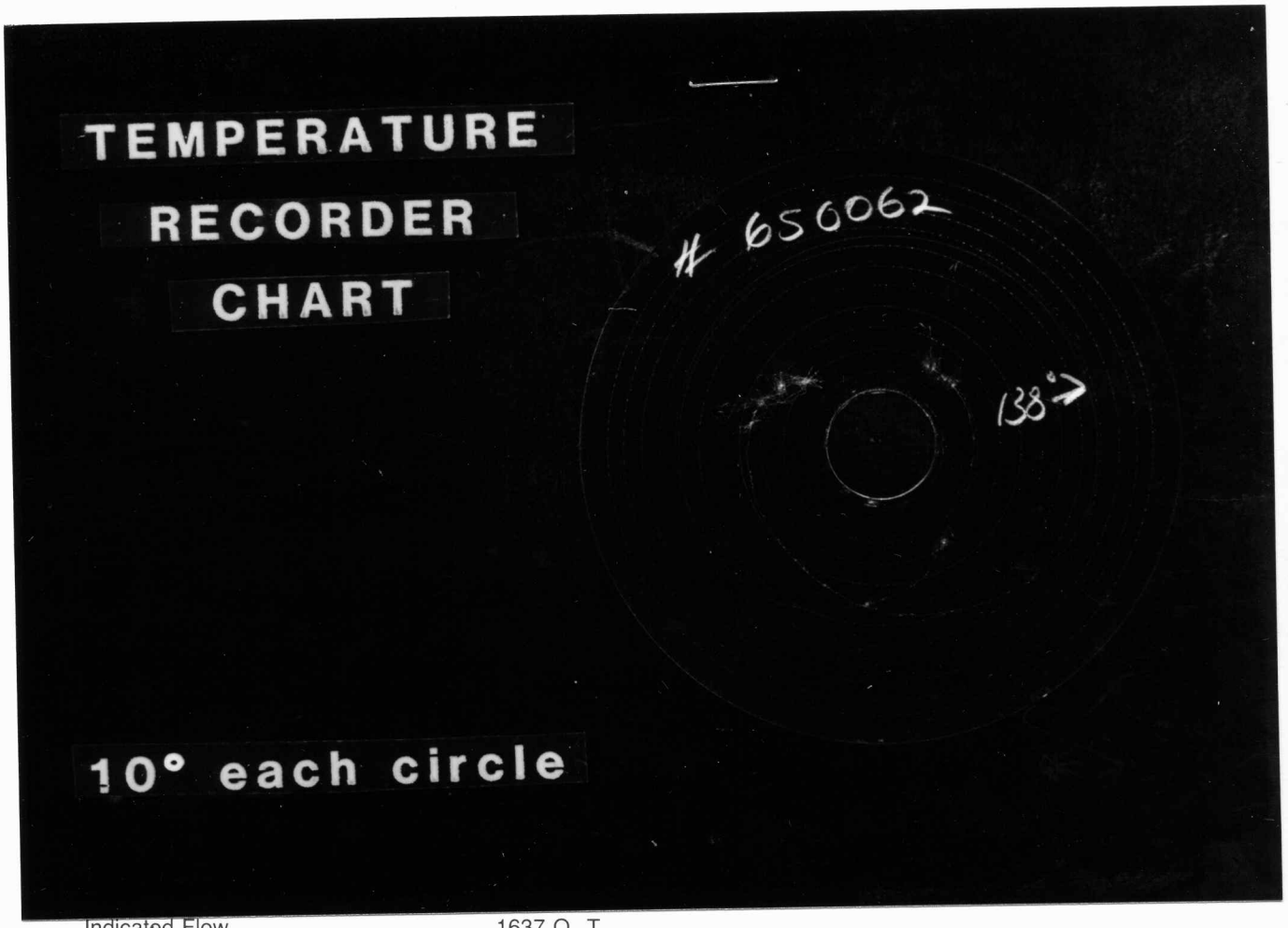
REMARKS:
PLUGGING ACTION DURING BOTH FLOW PERIODS.

TICKET NO. 65006200



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3522.0	
3	DRILL COLLARS.....	6.250	2.250	60.0	
50	IMPACT REVERSING SUB.....	5.625	2.000	1.0	3581.0
3	DRILL COLLARS.....	6.250	2.250	122.0	
5	CROSSOVER.....	6.000	2.000	1.0	
12	DUAL CIP VALVE.....	5.750	0.860	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	3713.0
80	AP RUNNING CASE.....	5.000	3.060	4.0	3718.0
15	JAR.....	5.000	1.500	5.0	
16	VR SAFETY JOINT.....	5.000	1.000	3.0	
70	OPEN HOLE PACKER.....	6.750	1.530	6.0	3733.0
70	OPEN HOLE PACKER.....	6.750	1.530	6.0	3739.0
20	FLUSH JOINT ANCHOR.....	5.000	2.360	11.0	
83	HT-500 TEMPERATURE CASE.....	5.000		1.0	3753.0
81	BLANKED-OFF RUNNING CASE.....	5.000		4.0	3754.0
	TOTAL DEPTH				3757.0

EQUIPMENT DATA



Indicated Flow Capacity	$kh = \frac{1637\ Q_g\ T}{m}$	md-ft
Average Effective Permeability	$k = \frac{kh}{h}$	md
Skin Factor	$S = 1.151 \left[\frac{m(P^*) - m(P_f)}{m} - LOG \frac{kt}{\phi\ \mu\ c_t r_w^2} + 3.23 \right]$	—
Damage Ratio	$DR = \frac{m(P^*) - m(P_f)}{m(P^*) - m(P_f) - 0.87\ mS}$	—
Indicated Flow Rate (Maximum)	$AOF_1 = \frac{Q_g\ m(P^*)}{m(P^*) - m(P_f)}$	MCFD
Indicated Flow Rate (Minimum)	$AOF_2 = Q_g \sqrt{\frac{m(P^*)}{m(P^*) - m(P_f)}}$	MCFD
Approx. Radius of Investigation	$r_i = 0.032 \sqrt{\frac{kt}{\phi \mu c_t}}$	ft

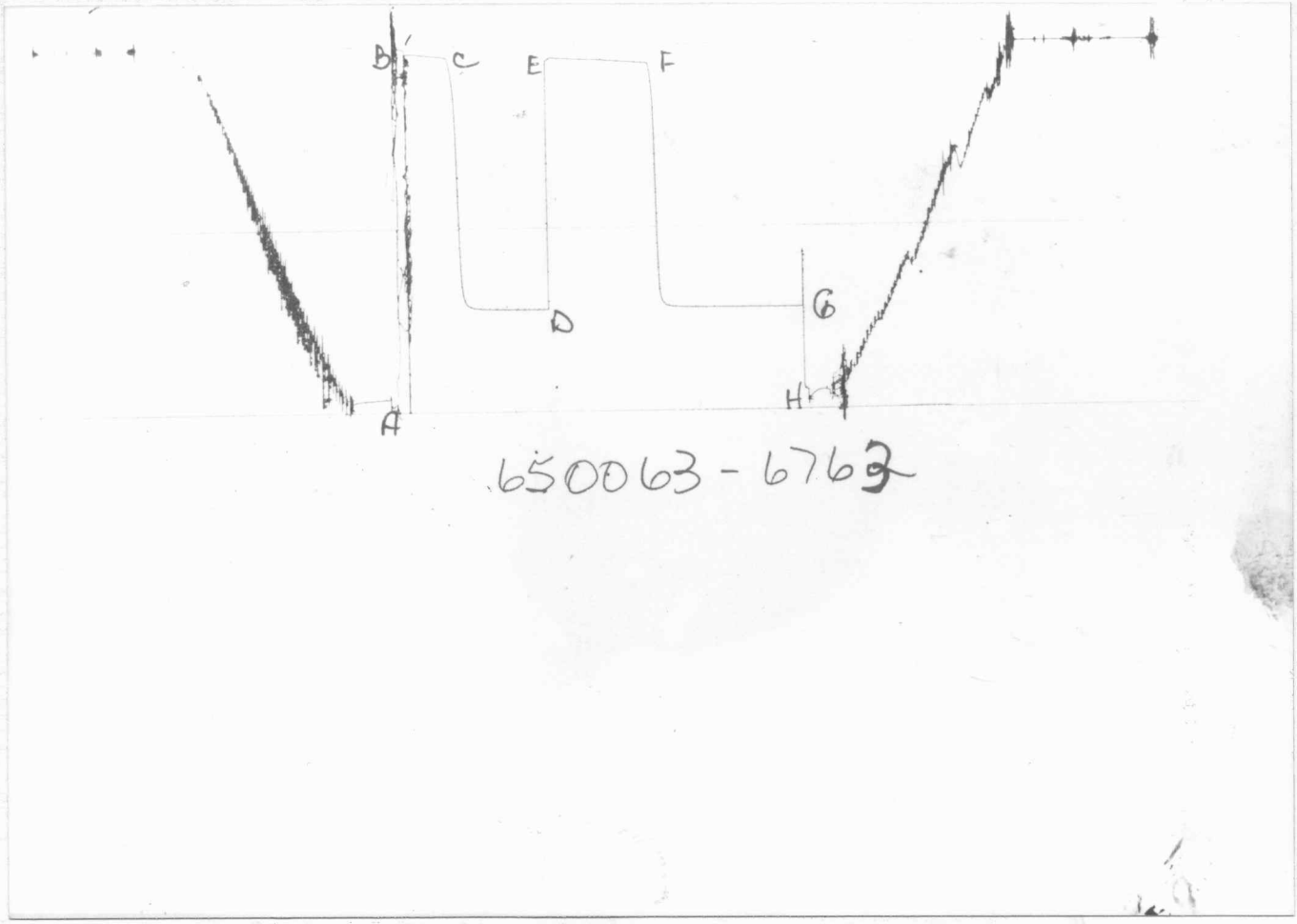
990

HALLIBURTON
SERVICES

TICKET NO. 65006300
19-NOV-82
PRATT

FORMATION TESTING SERVICE REPORT

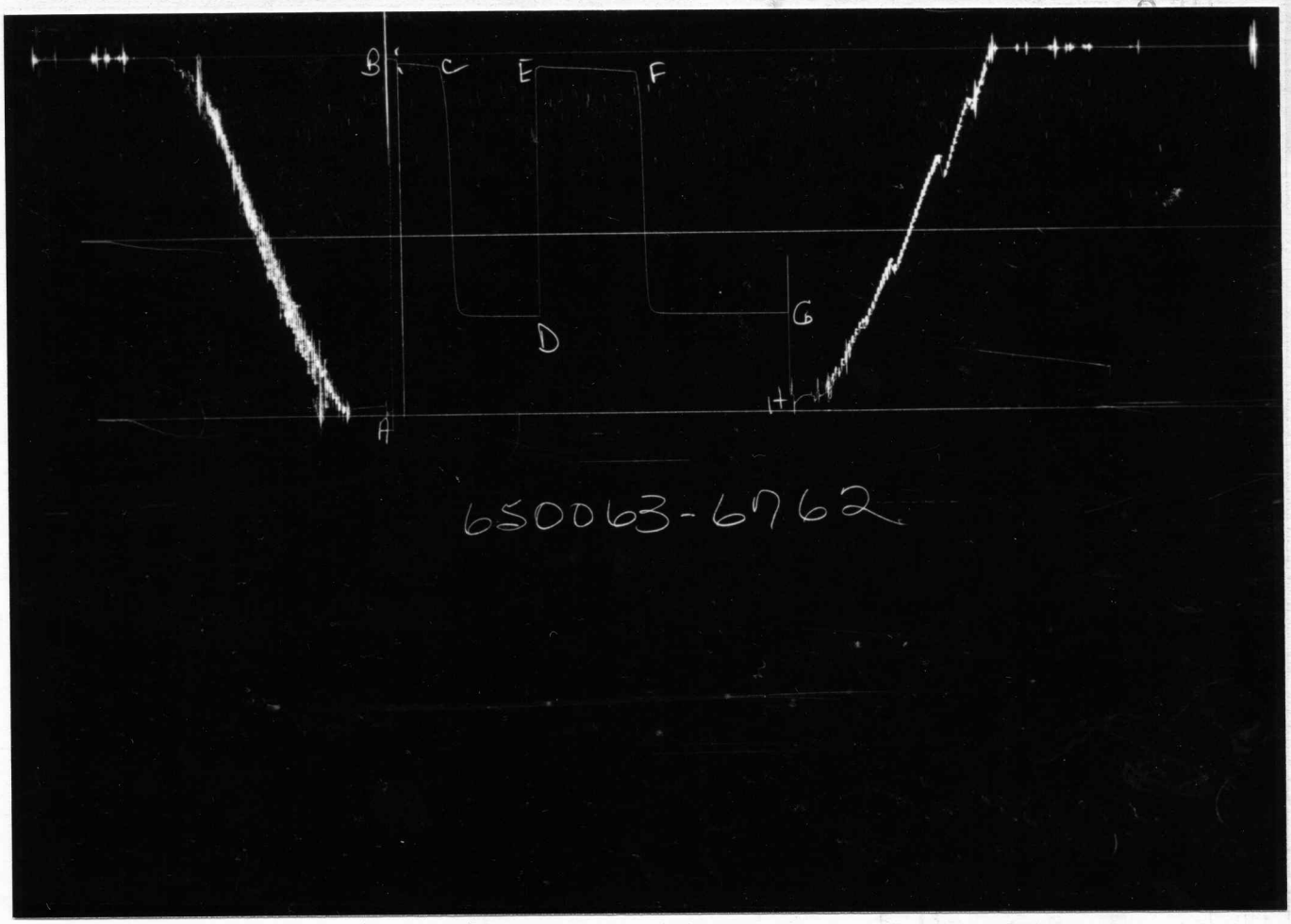
ENDICOTT	1-A	2	4081.' - 4090.'	CINCO EXPLORATION COMPANY	
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME	
LEGAL LOCATION SEC. - TWP. - RNG.	23-27-6	FIELD AREA	COUNTY KINGMAN	STATE KANSAS PW/NM	



650063-6763

GAUGE NO: 6763 DEPTH: 4060.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1932	1935.4			
B	INITIAL FIRST FLOW	55	6.1	30.0	31.5	F
C	FINAL FIRST FLOW	69	62.3			
C	INITIAL FIRST CLOSED-IN	69	62.3	60.0	58.6	C
D	FINAL FIRST CLOSED-IN	1449	1449.3			
E	INITIAL SECOND FLOW	69	81.4	60.0	60.1	F
F	FINAL SECOND FLOW	110	97.8			
F	INITIAL SECOND CLOSED-IN	110	97.8	90.0	89.8	C
G	FINAL SECOND CLOSED-IN	1449	1445.7			
H	FINAL HYDROSTATIC	1905	1901.4			



GAUGE NO: 6762 DEPTH: 4087.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1952.3			
B	INITIAL FIRST FLOW		20.7	30.0	31.5	F
C	FINAL FIRST FLOW		69.9			
C	INITIAL FIRST CLOSED-IN		69.9	60.0	58.6	C
D	FINAL FIRST CLOSED-IN		1461.9			
E	INITIAL SECOND FLOW		86.3	60.0	60.1	F
F	FINAL SECOND FLOW		109.7			
F	INITIAL SECOND CLOSED-IN		109.7	90.0	89.8	C
G	FINAL SECOND CLOSED-IN		1460.1			
H	FINAL HYDROSTATIC		1917.6			

EQUIPMENT & HOLE DATA

FORMATION TESTED: _____
NET PAY (ft): _____
GROSS TESTED FOOTAGE: 9.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 0
TOTAL DEPTH (ft): 4090.0
PACKER DEPTH(S) (ft): 4075, 4081
FINAL SURFACE CHOKE (in): 0.250
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.30
MUD VISCOSITY (sec): 44
ESTIMATED HOLE TEMP. (°F): 111
ACTUAL HOLE TEMP. (°F): ___ @ _____ ft

TICKET NUMBER: 65006300
DATE: 11-14-82 TEST NO: 2
TYPE DST: OPEN HOLE
HALLIBURTON CAMP: PRATT
TESTER: MR. MESSER
WITNESS: CHARLIE SHOEMAKER ?
DRILLING CONTRACTOR: _____

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
PIT	___ @ ___ °F	8000 ppm
	___ @ ___ °F	___ ppm
	___ @ ___ °F	___ ppm
	___ @ ___ °F	___ ppm
	___ @ ___ °F	___ ppm
	___ @ ___ °F	___ ppm

SAMPLER DATA

Psig AT SURFACE: _____
cu.ft. OF GAS: _____
cc OF OIL: _____
cc OF WATER: _____
cc OF MUD: _____
TOTAL LIQUID cc: _____

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): 39.0 @ 60 °F
GAS/OIL RATIO (cu.ft. per bbl): _____
GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT

RECOVERED:

15 FEET OIL - 95% OIL AND 5% GAS
60 FEET GASSY MUDDY OIL - 40% MUD, 40% OIL, 20% GAS
180 FEET GASSY OIL CUT MUD - 45% MUD, 20% OIL AND 35% GAS.

MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE: _____ TICKET NO: 65006300

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
11-14-82					
1600					RECEIVED THE CALL - READY AT
					1800.
1745					ON LOCATION - RIG COMING OUT.
1930					RIG OUT - STARTED PICKING UP
					THE TOOL.
2010					TOOL MADE UP.
2030					TOOL STARTED IN THE HOLE.
2305					TOOL OPENED - NO BLOW.
2310					FLUSHED TOOL - WEAK BLOW.
2320					OPENED FLOOR VALVE - NEEDLE
					VALVE WAS PLUGGED - STRONG
					BLOW NOW.
2335					CLOSED TOOL - NO GAS.
11-15-82					
0035					OPENED TOOL - STRONG BLOW IN
					THE BUCKET AFTER 5 MINUTES.
0135					TOOL CLOSED - NO GAS.
0305					TOOL STARTED OFF BOTTOM.

TICKET NO: 65006300

CLOCK NO: 10288 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: 6763

DEPTH: 4060.0

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	6.1			
	2	5.0	13.7	7.6		
[1]	3	6.6	18.9	5.2		
[2]	4	6.8	44.3	25.4		
	5	10.0	39.1	-5.2		
	6	15.0	43.4	4.3		
	7	20.0	48.9	5.5		
	8	25.0	52.6	3.7		
C	9	31.5	62.3	9.7		
			FIRST CLOSED-IN			
C	1	0.0	62.3			
	2	4.0	297.9	235.6	3.5	0.952
	3	8.0	1345.4	1283.1	6.4	0.695
	4	12.0	1430.2	1368.0	8.7	0.559
	5	16.0	1440.7	1378.5	10.6	0.472
	6	20.0	1444.8	1382.5	12.2	0.411
	7	24.0	1446.3	1384.0	13.6	0.364
	8	28.0	1447.1	1384.8	14.8	0.328
	9	32.0	1447.1	1384.8	15.9	0.298
	10	36.0	1448.1	1385.8	16.8	0.273
	11	40.0	1448.6	1386.3	17.6	0.253
	12	44.0	1448.6	1386.3	18.4	0.235
	13	48.0	1448.6	1386.3	19.0	0.219
	14	52.0	1448.6	1386.3	19.6	0.206
	15	56.0	1449.2	1386.9	20.2	0.194
D	16	58.6	1449.3	1387.0	20.5	0.187
			SECOND FLOW			
E	1	0.0	81.4			
	2	10.0	71.0	-10.4		
	3	20.0	74.9	3.9		
	4	30.0	79.6	4.7		
	5	40.0	85.6	6.1		
	6	50.0	92.1	6.5		
F	7	60.1	97.8	5.7		
			SECOND CLOSED-IN			
F	1	0.0	97.8			
	2	4.0	710.7	613.0	3.8	1.379
	3	8.0	1417.1	1319.3	7.4	1.095
	4	12.0	1436.0	1338.3	10.6	0.937
	5	16.0	1440.9	1343.1	13.6	0.827
	6	20.0	1443.0	1345.2	16.4	0.746
	7	24.0	1443.8	1346.0	19.0	0.683

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	8	28.0	1443.8	1346.0	21.4	0.631
	9	32.0	1444.3	1346.5	23.7	0.587
	10	36.0	1444.3	1346.5	25.8	0.550
	11	40.0	1444.3	1346.5	27.8	0.518
	12	50.0	1444.8	1347.0	32.3	0.452
	13	60.0	1444.8	1347.0	36.3	0.403
	14	70.0	1444.8	1347.0	39.7	0.363
	15	80.0	1445.3	1347.5	42.7	0.332
G	16	89.8	1445.7	1347.9	45.4	0.305

LEGEND:
[1] BEFORE BYPASS [2] AFTER BYPASS

REMARKS:

072

TICKET NO: 65006300

CLOCK NO: 2478 HOUR: 12

HALLIBURTON SERVICES

GAUGE NO: 6762

DEPTH: 4087.0

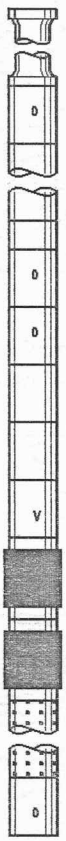
REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
		FIRST FLOW				
B	1	0.0	20.7			
	2	5.0	26.9	6.2		
[1]	3	6.6	31.2	4.3		
[2]	4	6.8	53.2	21.9		
	5	10.0	49.7	-3.5		
	6	15.0	52.4	2.6		
	7	20.0	57.5	5.1		
	8	25.0	62.2	4.7		
C	9	31.5	69.9	7.6		
		FIRST CLOSED-IN				
C	1	0.0	69.9			
	2	4.0	278.5	208.6	3.5	0.951
	3	8.0	1349.2	1279.3	6.4	0.695
	4	12.0	1445.0	1375.2	8.7	0.558
	5	16.0	1454.3	1384.4	10.6	0.473
	6	20.0	1457.0	1387.2	12.2	0.411
	7	24.0	1458.1	1388.3	13.6	0.364
	8	28.0	1459.4	1389.5	14.8	0.328
	9	32.0	1459.9	1390.1	15.9	0.298
	10	36.0	1460.4	1390.5	16.8	0.273
	11	40.0	1461.0	1391.2	17.6	0.252
	12	44.0	1461.0	1391.2	18.4	0.235
	13	48.0	1461.0	1391.2	19.0	0.219
	14	52.0	1461.6	1391.7	19.6	0.206
	15	56.0	1461.6	1391.7	20.2	0.194
D	16	58.6	1461.9	1392.0	20.5	0.187
		SECOND FLOW				
E	1	0.0	86.3			
	2	10.0	80.6	-5.7		
	3	20.0	85.0	4.4		
	4	30.0	88.6	3.6		
	5	40.0	95.6	6.9		
	6	50.0	101.5	6.0		
F	7	60.1	109.7	8.2		
		SECOND CLOSED-IN				
F	1	0.0	109.7			
	2	4.0	949.2	839.5	3.8	1.382
	3	8.0	1438.4	1328.7	7.4	1.095
	4	12.0	1452.6	1342.9	10.6	0.937
	5	16.0	1455.1	1345.4	13.6	0.828
	6	20.0	1456.5	1346.8	16.4	0.747
	7	24.0	1457.7	1348.0	19.0	0.683

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
		SECOND CLOSED-IN - CONTINUED				
	8	28.0	1458.0	1348.3	21.5	0.630
	9	32.0	1458.4	1348.7	23.7	0.587
	10	36.0	1459.0	1349.3	25.9	0.549
	11	40.0	1459.7	1349.9	27.8	0.518
	12	50.0	1459.7	1349.9	32.3	0.452
	13	60.0	1459.7	1349.9	36.3	0.403
	14	70.0	1460.1	1350.4	39.7	0.363
	15	80.0	1460.1	1350.4	42.7	0.332
G	16	89.8	1460.1	1350.4	45.4	0.305

LEGEND:
[1] BEFORE BYPASS [2] AFTER BYPASS

REMARKS:

TICKET NO. 65006300



		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3925.0	
50	IMPACT REVERSING SUB.....	5.625	2.000	1.0	3925.0
3	DRILL COLLARS.....	6.250	2.250	121.0	
5	CROSSOVER.....	6.000	2.000	1.0	
12	DUAL CIP VALVE.....	5.750	0.860	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	4055.0
80	AP RUNNING CASE.....	5.000	3.060	4.0	4060.0
15	JAR.....	5.000	1.500	5.0	
16	VR SAFETY JOINT.....	5.000	1.000	3.0	
70	OPEN HOLE PACKER.....	6.750	1.530	6.0	4075.0
70	OPEN HOLE PACKER.....	6.750	1.530	6.0	4081.0
20	FLUSH JOINT ANCHOR.....	5.000	2.360	3.0	
81	BLANKED-OFF RUNNING CASE.....	5.000		4.0	4087.0
	TOTAL DEPTH				4090.0

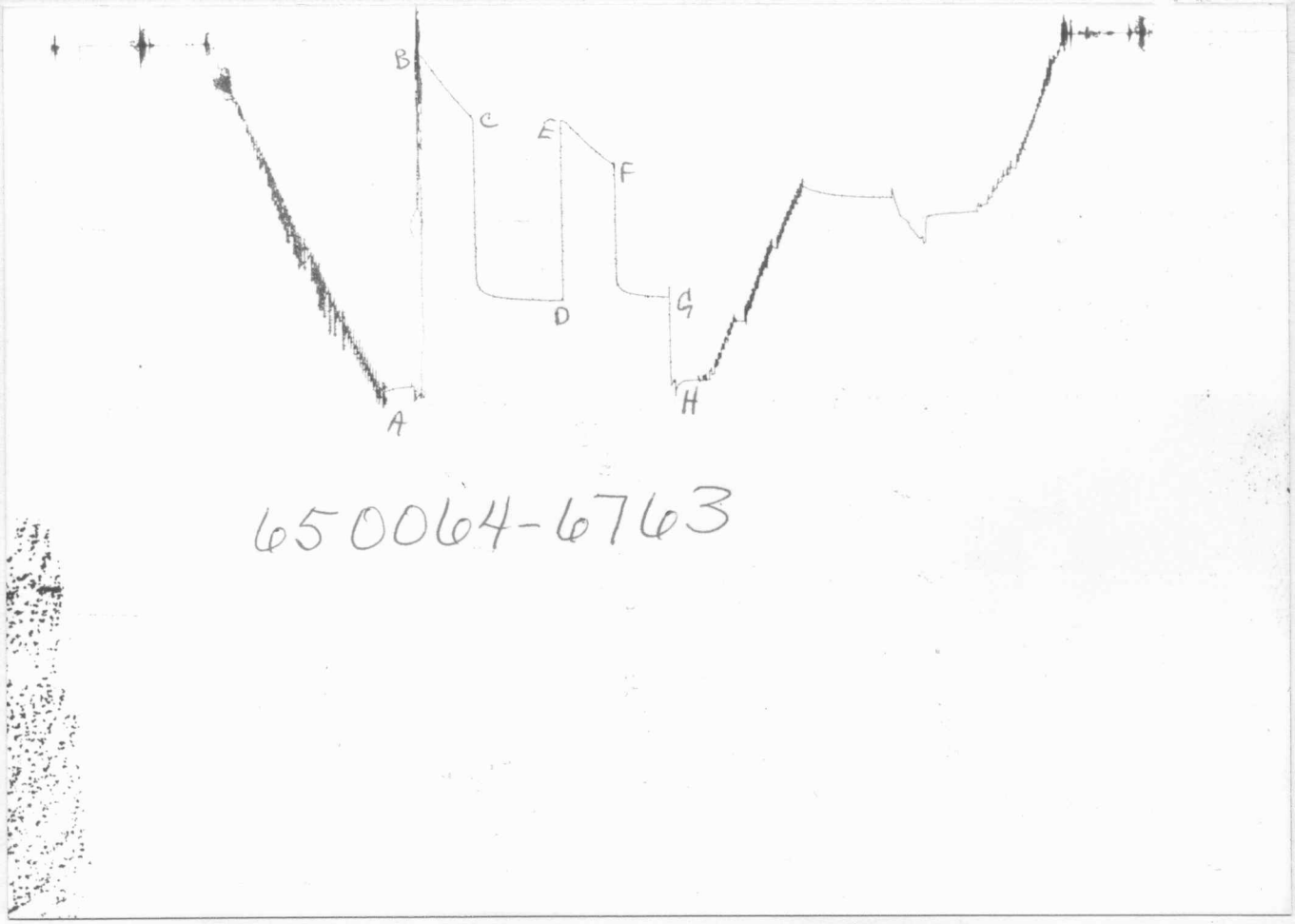
EQUIPMENT DATA

LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL		
ENDICOTT	1-A	3	4090.' - 4096.'		
LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE	LEASE OWNER/COMPANY NAME	
23-27-6		KINGMAN	KANSAS BC-OR	CINCO EXPLORATION COMPANY	

HALLIBURTON
SERVICES

TICKET NO. 65006400
19-NOV-82
PRATT

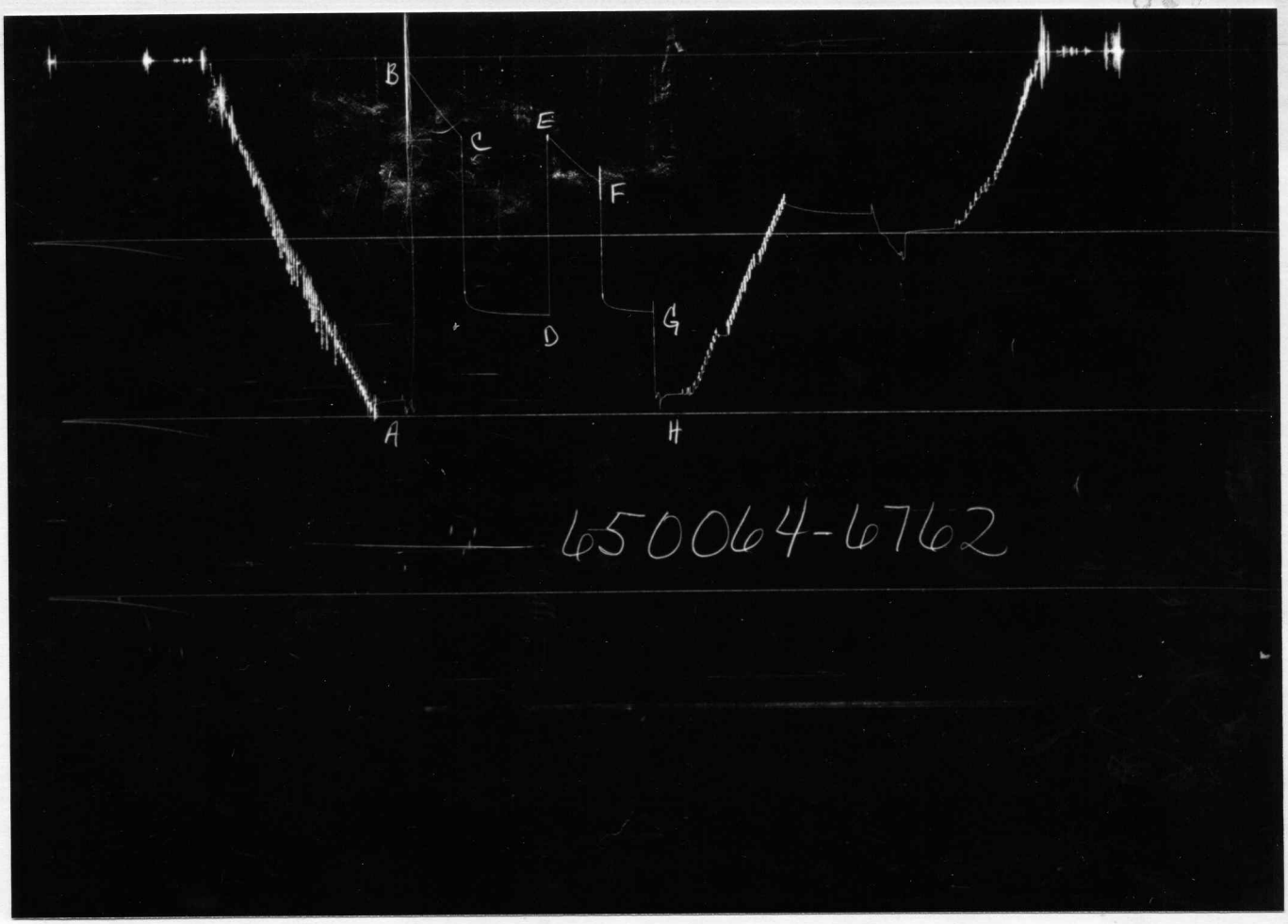
FORMATION TESTING SERVICE REPORT



6500064-6763

GAUGE NO: 6763 DEPTH: 4065.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1900.6			
B	INITIAL FIRST FLOW		47.5	30.0	32.7	F
C	FINAL FIRST FLOW		430.2			
C	INITIAL FIRST CLOSED-IN		430.2	55.0	51.5	C
D	FINAL FIRST CLOSED-IN		1436.2			
E	INITIAL SECOND FLOW		444.2	30.0	32.0	F
F	FINAL SECOND FLOW		695.6			
F	INITIAL SECOND CLOSED-IN		695.6	30.0	30.9	C
G	FINAL SECOND CLOSED-IN		1425.3			
H	FINAL HYDROSTATIC		1885.9			



GAUGE NO: 6762 DEPTH: 4069.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1905	1909.1			
B	INITIAL FIRST FLOW	70	55.1	30.0	32.7	F
C	FINAL FIRST FLOW	431	443.3			
C	INITIAL FIRST CLOSED-IN	431	443.3	55.0	51.5	C
D	FINAL FIRST CLOSED-IN	1423	1443.9			
E	INITIAL SECOND FLOW	417	453.5	30.0	32.0	F
F	FINAL SECOND FLOW	692	706.7			
F	INITIAL SECOND CLOSED-IN	692	706.7	30.0	30.9	C
G	FINAL SECOND CLOSED-IN	1423	1433.1			
H	FINAL HYDROSTATIC	1891	1892.8			

EQUIPMENT & HOLE DATA

FORMATION TESTED: _____
NET PAY (ft): _____
GROSS TESTED FOOTAGE: 6.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 0
TOTAL DEPTH (ft): 4096.0
PACKER DEPTH(S) (ft): 4084, 4090
FINAL SURFACE CHOKE (in): _____
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.10
MUD VISCOSITY (sec): 52
ESTIMATED HOLE TEMP. (°F): 100
ACTUAL HOLE TEMP. (°F): ___ @ _____ ft

TICKET NUMBER: 65006400

DATE: 11-15-82 TEST NO: 3

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: PRATT

TESTER: MESSER

WITNESS: CHARLIE SHANK

DRILLING CONTRACTOR: _____

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
PIT	____ @ ____°F	10000 ppm
BOTTOM	____ @ ____°F	47340 ppm
_____	____ @ ____°F	_____ ppm
_____	____ @ ____°F	_____ ppm
_____	____ @ ____°F	_____ ppm
_____	____ @ ____°F	_____ ppm

SAMPLER DATA

Psig AT SURFACE: _____
cu.ft. OF GAS: _____
cc OF OIL: _____
cc OF WATER: _____
cc OF MUD: _____
TOTAL LIQUID cc: _____

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ ___°F
GAS/OIL RATIO (cu.ft. per bbl): _____
GAS GRAVITY: _____

CUSHION DATA

TYPE	AMOUNT	WEIGHT
_____	_____	_____
_____	_____	_____

RECOVERED:

1950' OF GASSY OIL-96% OIL-4% GAS
120' OF SLIGHTLY OIL GAS CUT WATER-5% MUD-2% OIL-3% GAS-90% WATER

MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE: _____ TICKET NO: 65006400

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
11-15-82					
1430					RECEIVED CALL-READY AT 1600
1600					ON LOCATION-RIG COMING OUT
1645					RIG OUT, STARTED PICKING UP
					TOOL
1715					MADE UP TOOL AND IN TABLE
1730					TOOL STARTED IN HOLE
1950					OPENED TOOL WITH A STRONG BLOW
					FOR 1 MINUTE.
2020					CLOSED TOOL-NO GAS
2115					OPENED TOOL WITH A STRONG BLOW
					FOR 3 MINUTES.
2140					GAS TO SURFACE-OPENED FLOOR
					VALVE-TOO WEAK TO MEASURE.
2145					CLOSED TOOL
2215					TOOL STARTED OFF BOTTOM
2400					RIG STOPPED TO CIRCULATE OUT
					FLUID
					HAD 34 STANDS LEFT TO PULL.
11-16-82					
0115					CONTINUED OUT OF HOLE.
0400					TOOL IN TABLE.

TICKET NO: 65006400		GAUGE NO: 6762
CLOCK NO: 2478 HOUR: 12	HALLIBURTON SERVICES	DEPTH: 4069.0

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	55.1			
	2	5.0	116.7	61.5		
	3	10.0	183.3	66.7		
	4	15.0	242.8	59.4		
	5	20.0	301.3	58.5		
	6	25.0	361.8	60.6		
	7	30.0	411.5	49.7		
C	8	32.7	443.3	31.8		
			FIRST CLOSED-IN			
C	1	0.0	443.3			
	2	2.0	1373.6	930.3	1.9	1.235
	3	4.0	1392.3	948.9	3.5	0.964
	4	6.0	1402.9	959.6	5.1	0.809
	5	8.0	1410.4	967.0	6.4	0.707
	6	10.0	1415.5	972.1	7.7	0.630
	7	12.0	1419.1	975.7	8.8	0.571
	8	14.0	1423.1	979.7	9.8	0.524
	9	16.0	1425.3	981.9	10.8	0.482
	10	18.0	1427.6	984.3	11.6	0.450
	11	20.0	1430.1	986.8	12.4	0.420
	12	25.0	1433.7	990.4	14.2	0.363
	13	30.0	1436.5	993.1	15.6	0.320
	14	35.0	1439.0	995.6	16.9	0.286
	15	40.0	1441.2	997.8	18.0	0.259
	16	45.0	1442.5	999.2	18.9	0.237
	17	50.0	1443.6	1000.3	19.8	0.218
D	18	51.5	1443.9	1000.6	20.0	0.213
			SECOND FLOW			
E	1	0.0	453.5			
	2	5.0	484.6	31.1		
	3	10.0	532.1	47.6		
	4	15.0	576.6	44.5		
	5	20.0	619.2	42.6		
	6	25.0	658.1	38.9		
	7	30.0	691.2	33.1		
F	8	32.0	706.7	15.5		
			SECOND CLOSED-IN			
F	1	0.0	706.7			
	2	1.0	1364.9	658.2	1.0	1.813
	3	2.0	1380.7	673.9	2.0	1.519
	4	3.0	1389.8	683.0	2.9	1.353
	5	4.0	1396.8	690.1	3.8	1.234
	6	5.0	1400.8	694.1	4.6	1.148

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	7	6.0	1404.7	698.0	5.5	1.074
	8	7.0	1407.9	701.1	6.3	1.011
	9	8.0	1410.4	703.6	7.1	0.959
	10	9.0	1412.3	705.6	7.9	0.913
	11	10.0	1414.6	707.9	8.6	0.875
	12	12.0	1418.1	711.4	10.1	0.807
	13	14.0	1421.0	714.3	11.5	0.749
	14	16.0	1423.3	716.6	12.8	0.703
	15	18.0	1425.1	718.4	14.1	0.662
	16	20.0	1426.9	720.2	15.3	0.627
	17	22.0	1428.6	721.9	16.4	0.595
	18	24.0	1430.0	723.2	17.5	0.567
	19	26.0	1430.8	724.1	18.5	0.543
	20	28.0	1431.9	725.2	19.6	0.520
G	21	30.9	1433.1	726.4	20.9	0.491

REMARKS:

TICKET NO: 65006400	GAUGE NO: 6763
CLOCK NO: 10288 HOUR: 12	DEPTH: 4065.0

HALLIBURTON SERVICES

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	47.5			
	2	5.0	110.6	63.1		
	3	10.0	176.2	65.6		
	4	15.0	236.6	60.4		
	5	20.0	294.1	57.5		
	6	25.0	347.2	53.2		
	7	30.0	400.4	53.2		
C	8	32.7	430.2	29.8		
			FIRST CLOSED-IN			
C	1	0.0	430.2			
	2	2.0	1361.6	931.4	1.9	1.242
	3	4.0	1381.4	951.1	3.6	0.962
	4	6.0	1393.4	963.1	5.0	0.812
	5	8.0	1401.7	971.4	6.4	0.707
	6	10.0	1407.6	977.3	7.6	0.631
	7	12.0	1412.2	981.9	8.8	0.571
	8	14.0	1415.5	985.2	9.8	0.523
	9	16.0	1418.0	987.7	10.7	0.483
	10	18.0	1419.8	989.5	11.6	0.449
	11	20.0	1422.5	992.3	12.4	0.421
	12	25.0	1426.2	996.0	14.2	0.363
	13	30.0	1429.7	999.4	15.6	0.320
	14	35.0	1432.9	1002.6	16.9	0.286
	15	40.0	1435.1	1004.8	18.0	0.259
	16	45.0	1436.2	1005.9	18.9	0.237
	17	50.0	1437.0	1006.8	19.7	0.218
D	18	51.5	1436.2	1005.9	20.0	0.213
			SECOND FLOW			
E	1	0.0	444.2			
	2	5.0	470.2	26.0		
	3	10.0	519.1	49.0		
	4	15.0	564.5	45.3		
	5	20.0	605.5	41.0		
	6	25.0	647.0	41.5		
	7	30.0	681.4	34.4		
F	8	32.0	695.6	14.2		
			SECOND CLOSED-IN			
F	1	0.0	695.6			
	2	1.0	1355.5	659.9	1.0	1.822
	3	2.0	1371.3	675.7	1.9	1.528
	4	3.0	1381.2	685.6	2.9	1.352
	5	4.0	1387.8	692.3	3.8	1.230
	6	5.0	1393.1	697.5	4.6	1.144

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	7	6.0	1397.4	701.8	5.5	1.074
	8	7.0	1400.3	704.7	6.3	1.011
	9	8.0	1402.6	707.0	7.1	0.961
	10	9.0	1405.1	709.5	7.9	0.913
	11	10.0	1407.5	711.9	8.7	0.873
	12	12.0	1411.0	715.5	10.1	0.807
	13	14.0	1413.7	718.1	11.5	0.749
	14	16.0	1415.6	720.0	12.8	0.703
	15	18.0	1417.7	722.1	14.1	0.662
	16	20.0	1419.6	724.0	15.3	0.626
	17	22.0	1421.1	725.5	16.4	0.596
	18	24.0	1422.5	726.9	17.5	0.567
	19	26.0	1423.8	728.2	18.5	0.543
	20	28.0	1424.6	729.0	19.6	0.520
G	21	30.9	1425.3	729.7	20.9	0.491

REMARKS:

TICKET NO. 65006400

		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3870.0	
3	DRILL COLLARS.....	6.250	2.250	60.0	
50	IMPACT REVERSING SUB.....	5.625	2.000	1.0	3930.0
3	DRILL COLLARS.....	6.250	2.250	122.0	
5	CROSSOVER.....	6.000	2.000	1.0	
12	DUAL CIP VALVE.....	5.750	0.860	6.0	
60	HYDROSPRING TESTER.....	5.000	0.750	5.0	4060.0
80	AP RUNNING CASE.....	5.000	3.060	4.0	4065.0
80	AP RUNNING CASE.....	5.000	3.060	4.0	4069.0
15	JAR.....	5.000	1.500	5.0	
16	VR SAFETY JOINT.....	5.000	1.000	3.0	
70	OPEN HOLE PACKER.....	6.750	1.530	6.0	4084.0
70	OPEN HOLE PACKER.....	6.750	1.530	6.0	4090.0
20	FLUSH JOINT ANCHOR.....	5.000	2.360	3.0	
24	SHOE.....	5.000		1.0	

TOTAL DEPTH 4096.0

EQUIPMENT DATA

296

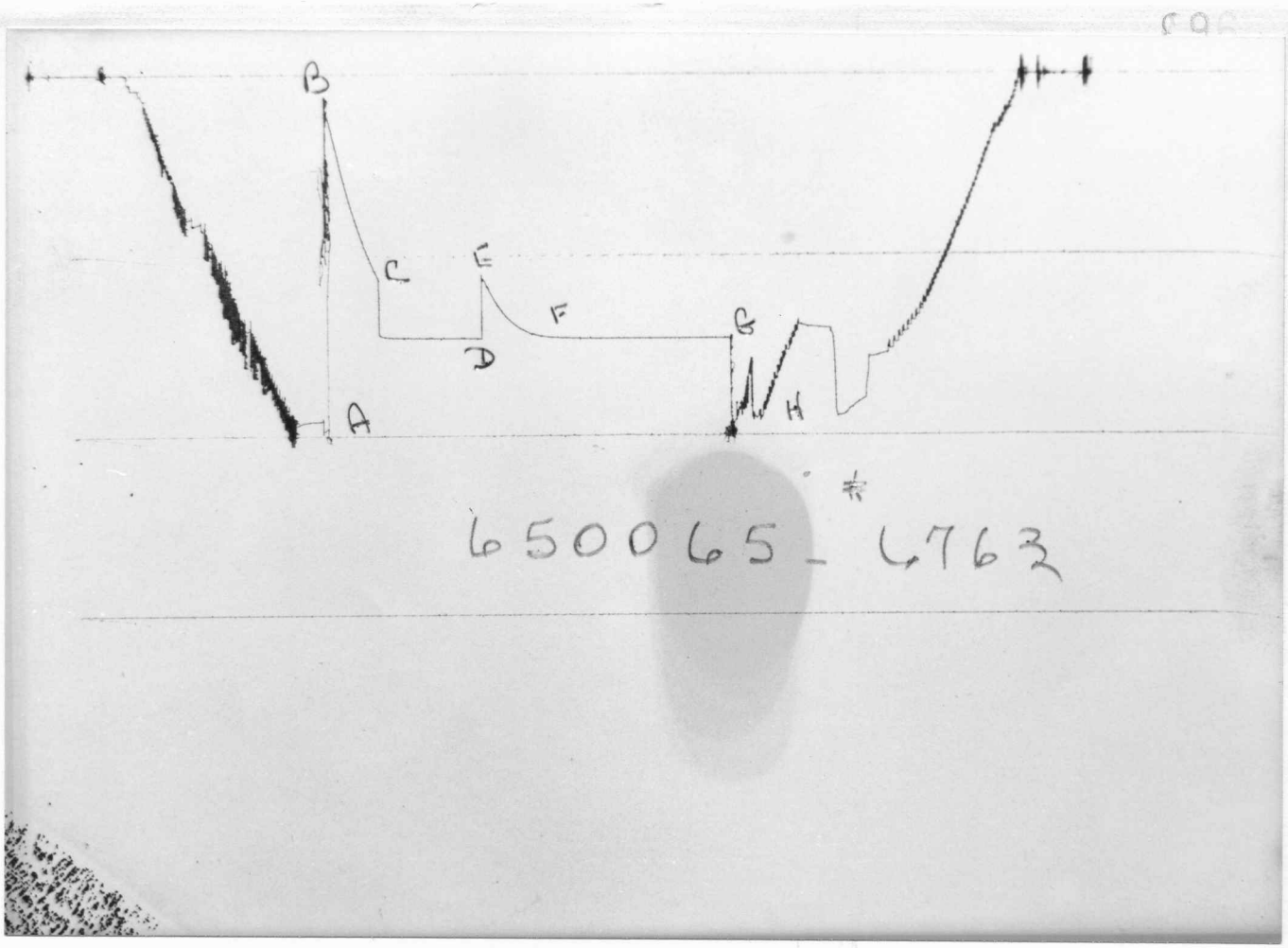
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
ENDICOTT	1-A	4	4107.' - 4118.'	CINCO EXPLORATION COMPANY

LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE
23 - 27 - 6		KINGMAN	KANSAS NM/PW

HALLIBURTON
SERVICES

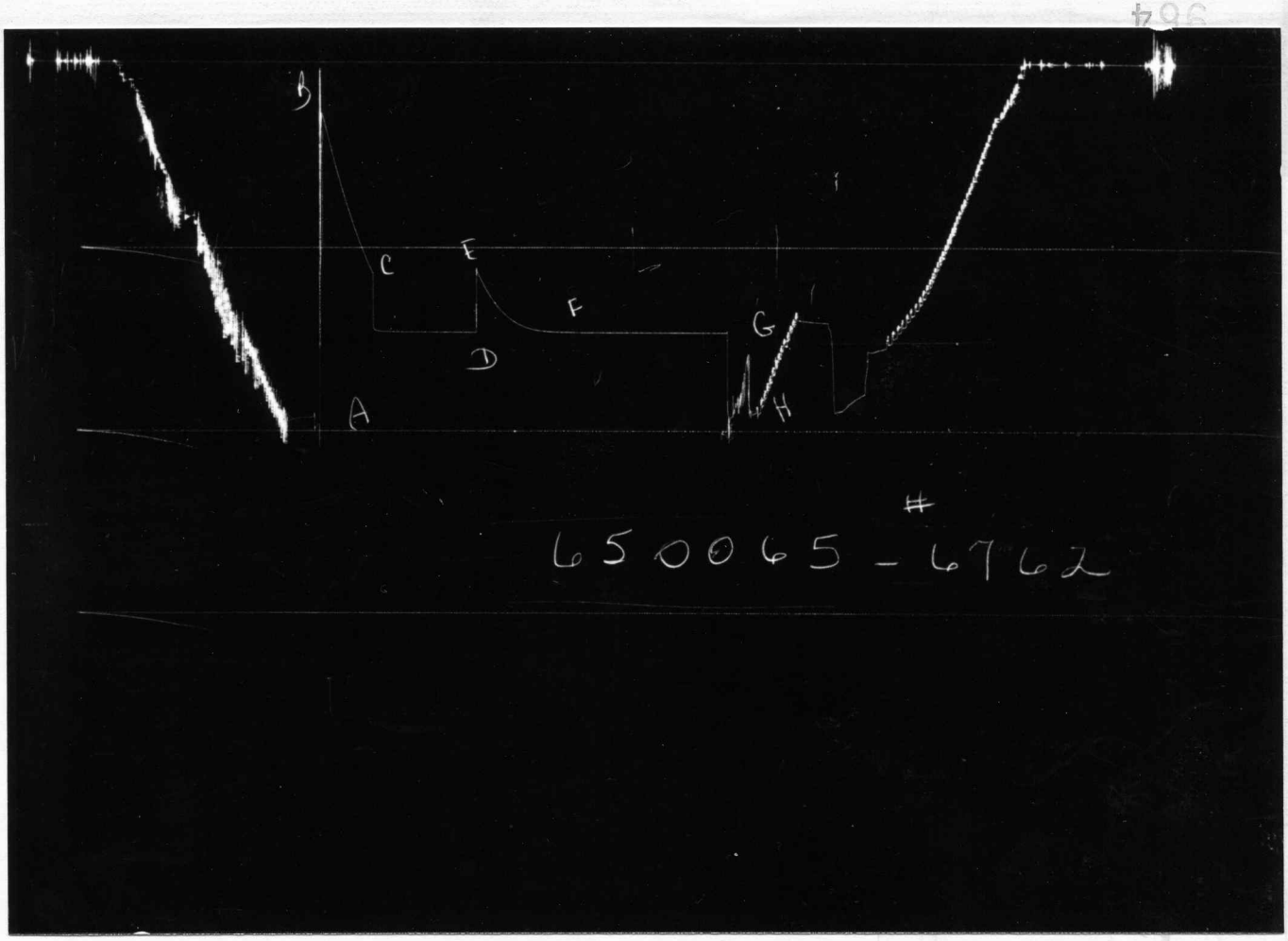
TICKET NO. 65006500
22-NOV-82
PRATT

FORMATION TESTING SERVICE REPORT



GAUGE NO: 6763 DEPTH: 4086.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1919	1922.5			
B	INITIAL FIRST FLOW	138	123.3	30.0	31.6	F
C	FINAL FIRST FLOW	1131	1134.8			
C	INITIAL FIRST CLOSED-IN	1131	1134.8	60.0	62.1	C
D	FINAL FIRST CLOSED-IN	1449	1463.1			
E	INITIAL SECOND FLOW	1103	1129.8	60.0	59.4	F
F	FINAL SECOND FLOW	1449	1462.7			
F	INITIAL SECOND CLOSED-IN	1449	1462.7	90.0	90.6	C
G	FINAL SECOND CLOSED-IN	1449	1462.7			
H	FINAL HYDROSTATIC	1919	1919.3			



GAUGE NO: 6762 DEPTH: 4115.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		1935.5			
B	INITIAL FIRST FLOW		168.6	30.0	31.6	F
C	FINAL FIRST FLOW		1151.5			
C	INITIAL FIRST CLOSED-IN		1151.5	60.0	62.1	C
D	FINAL FIRST CLOSED-IN		1474.2			
E	INITIAL SECOND FLOW		1144.1	60.0	59.4	F
F	FINAL SECOND FLOW		1474.9			
F	INITIAL SECOND CLOSED-IN		1474.9	90.0	90.6	C
G	FINAL SECOND CLOSED-IN		1475.0			
H	FINAL HYDROSTATIC		1931.1			

EQUIPMENT & HOLE DATA

FORMATION TESTED: VIOLA
NET PAY (ft):
GROSS TESTED FOOTAGE: 11.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 0
TOTAL DEPTH (ft): 4118.0
PACKER DEPTH(S) (ft): 4101, 4107
FINAL SURFACE CHOKE (in): 0.250
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.00
MUD VISCOSITY (sec): 47
ESTIMATED HOLE TEMP. (°F): 117
ACTUAL HOLE TEMP. (°F): ___ @ ___ ft

TICKET NUMBER: 65006500

DATE: 11-16-82 TEST NO: 4

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: PRATT

TESTER: MESSER

WITNESS: CHARLY SHANK

DRILLING CONTRACTOR: REYNOLDS DRILLING COMPANY

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
PIT	___ @ ___ °F	12000 ppm
BOTTOM RECOVERY	___ @ ___ °F	57860 ppm
	___ @ ___ °F	___ ppm
	___ @ ___ °F	___ ppm
	___ @ ___ °F	___ ppm
	___ @ ___ °F	___ ppm

SAMPLER DATA

Psig AT SURFACE:
cu.ft. OF GAS:
cc OF OIL:
cc OF WATER:
cc OF MUD:
TOTAL LIQUID cc:

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): ___ @ ___ °F
GAS/OIL RATIO (cu.ft. per bbl):
GAS GRAVITY:

CUSHION DATA

TYPE	AMOUNT	WEIGHT

RECOVERED:

2620 FEET OF SALTWATER

MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE:					TICKET NO: 65006500
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
11-16-82					
1130					RECEIVED CALL; READY AT 1315.
1315					ON LOCATION. RIG COMING OUT
					OF HOLE.
1330					RIG OUT - STARTED PICKING UP
					TOOL.
1410					TOOL MADE UP AND STARTED IN.
1620					OPENED TOOL WITH A STRONG BLOW
					IN 1 MINUTE.
1650					CLOSED TOOL - NO GAS.
1750					REOPENED TOOL WITH A STRONG
					BLOW.
1850					CLOSED TOOL - NO GAS.
2020					TOOL STARTED OFF BOTTOM.
2100					RIG STOPPED TO CIRCULATE OUT.
2150					RIG CONTINUED OUT OF HOLE.
2345					TOOL IN TABLE.

TICKET NO: 65006500	GAUGE NO: 6763
CLOCK NO: 10288 HOUR: 12	DEPTH: 4086.0

HALLIBURTON SERVICES

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	123.3			
	2	5.0	361.0	237.7		
	3	10.0	554.5	193.5		
	4	15.0	730.7	176.2		
	5	20.0	874.7	143.9		
	6	25.0	997.1	122.5		
	7	30.0	1102.3	105.2		
C	8	31.6	1134.8	32.5		
			FIRST CLOSED-IN			
C	1	0.0	1134.8			
	2	2.0	1451.0	316.2	1.9	1.220
	3	4.0	1454.8	320.0	3.5	0.954
	4	6.0	1457.3	322.5	5.0	0.799
	5	8.0	1458.3	323.5	6.4	0.692
	6	10.0	1459.1	324.3	7.6	0.619
	7	15.0	1460.1	325.3	10.2	0.493
	8	20.0	1460.5	325.7	12.3	0.411
	9	25.0	1461.0	326.2	14.0	0.354
	10	30.0	1461.5	326.7	15.4	0.312
	11	35.0	1461.9	327.1	16.6	0.279
	12	40.0	1461.9	327.1	17.6	0.253
	13	45.0	1461.9	327.1	18.6	0.231
	14	50.0	1461.9	327.1	19.4	0.213
	15	55.0	1461.9	327.1	20.1	0.197
	16	60.0	1462.2	327.3	20.7	0.184
D	17	62.1	1463.1	328.3	20.9	0.179
			SECOND FLOW			
E	1	0.0	1129.8			
	2	10.0	1282.9	153.0		
	3	20.0	1384.1	101.2		
	4	30.0	1435.9	51.8		
	5	40.0	1454.0	18.1		
	6	50.0	1459.7	5.7		
F	7	59.4	1462.7	3.0		
			SECOND CLOSED-IN			
F	1	0.0	1462.7			
G	2	90.6	1462.7	0.0	45.4	0.302

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$

REMARKS:

TICKET NO: 65006500	GAUGE NO: 6762
CLOCK NO: 2478 HOUR: 12	DEPTH: 4115.0

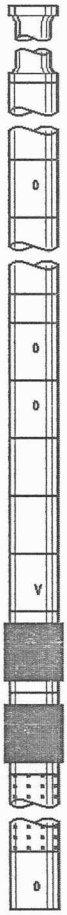
HALLIBURTON SERVICES

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	168.6			
	2	5.0	416.3	247.6		
	3	10.0	590.5	174.3		
	4	15.0	748.1	157.6		
	5	20.0	888.6	140.5		
	6	25.0	1010.6	122.0		
	7	30.0	1122.1	111.5		
C	8	31.6	1151.5	29.4		
			FIRST CLOSED-IN			
C	1	0.0	1151.5			
	2	2.0	1464.6	313.1	1.9	1.230
	3	4.0	1467.8	316.3	3.5	0.951
	4	6.0	1469.5	318.0	5.0	0.799
	5	8.0	1470.7	319.2	6.4	0.695
	6	10.0	1470.9	319.3	7.6	0.620
	7	15.0	1472.1	320.6	10.2	0.492
	8	20.0	1472.7	321.1	12.3	0.411
	9	25.0	1473.1	321.5	14.0	0.355
	10	30.0	1473.5	322.0	15.4	0.312
	11	35.0	1473.5	322.0	16.6	0.279
	12	40.0	1473.9	322.4	17.6	0.253
	13	45.0	1473.9	322.4	18.6	0.231
	14	50.0	1473.9	322.4	19.3	0.213
	15	55.0	1474.3	322.8	20.1	0.197
	16	60.0	1474.3	322.8	20.7	0.184
D	17	62.1	1474.2	322.7	20.9	0.179
			SECOND FLOW			
E	1	0.0	1144.1			
	2	10.0	1302.3	158.3		
	3	20.0	1399.2	96.8		
	4	30.0	1448.9	49.7		
	5	40.0	1468.0	19.1		
	6	50.0	1474.0	6.1		
F	7	59.4	1474.9	0.8		
			SECOND CLOSED-IN			
F	1	0.0	1474.9			
G	2	90.6	1475.0	0.1	45.4	0.302

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$

REMARKS:

TICKET NO. 65006500

			O.D.	I.D.	LENGTH	DEPTH
1		DRILL PIPE.....	4.500	3.826		
3		DRILL COLLARS.....	6.250	2.250	61.0	
50		IMPACT REVERSING SUB.....	5.625	2.000	1.0	
3		DRILL COLLARS.....	6.250	2.250	121.0	
5		CROSSOVER.....	6.000	2.000	1.0	
12		DUAL CIP VALVE.....	5.750	0.860	6.0	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	4084.0
80		AP RUNNING CASE.....	5.000	3.060	4.0	4086.0
15		JAR.....	5.000	1.500	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	3.0	
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	4101.0
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	4107.0
20		FLUSH JOINT ANCHOR.....	5.000	2.360	5.0	
81		BLANKED-OFF RUNNING CASE.....	5.000	2.440	4.0	4115.0

TOTAL DEPTH 4118.0

EQUIPMENT DATA