Inc

LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE
35 - 27 SOUTH - 17 WEST			KANSAS PF

LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
KENDALL	1	1	4137.0 - 4175.0	RAMCO/PENDLETON (SEE REMARKS)

35-27-17W

HALLIBURTON SERVICES

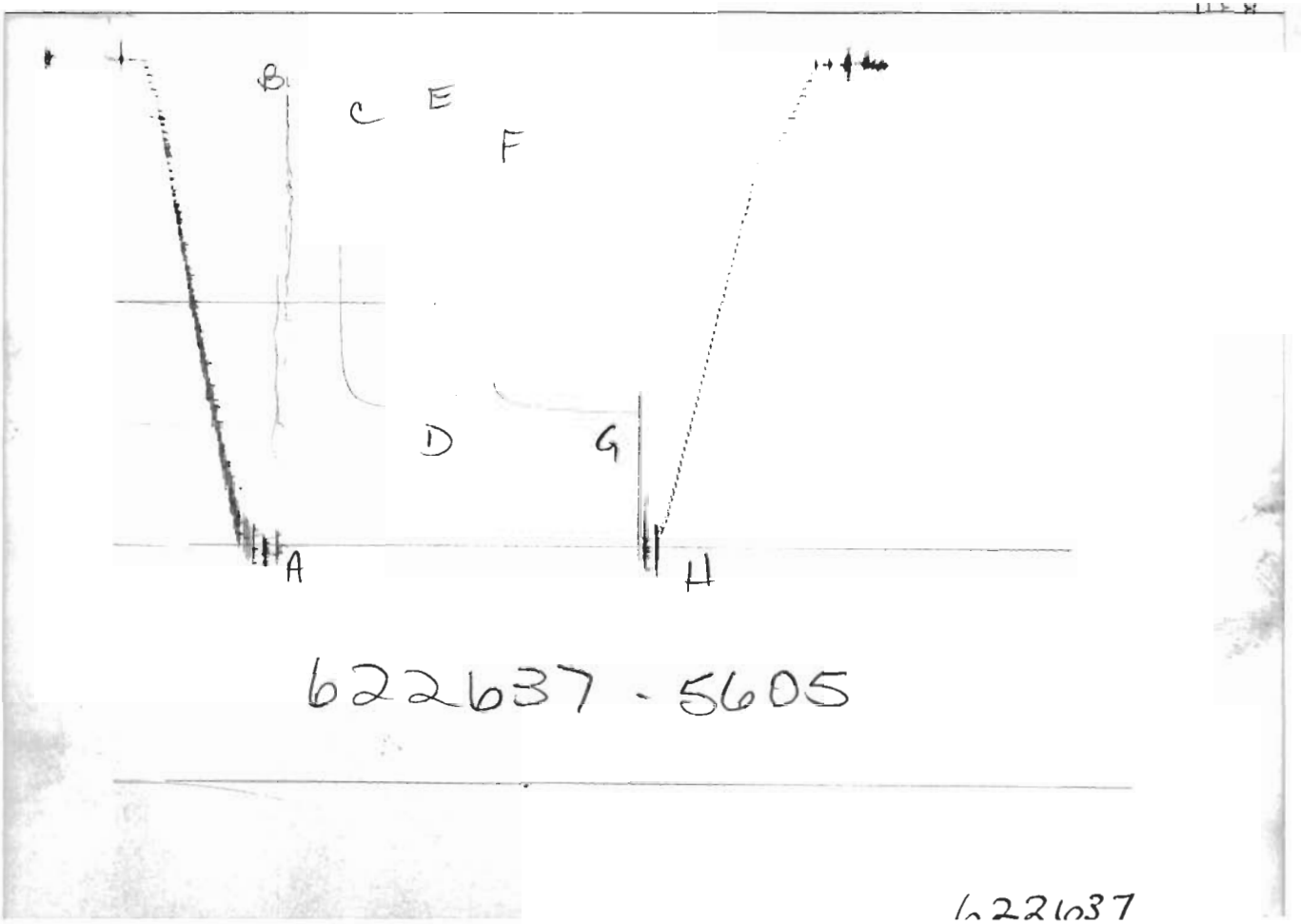
TICKET NO. 62263700

23-DEC-87

PRATT

FORMATION TESTING SERVICE REPORT

29557

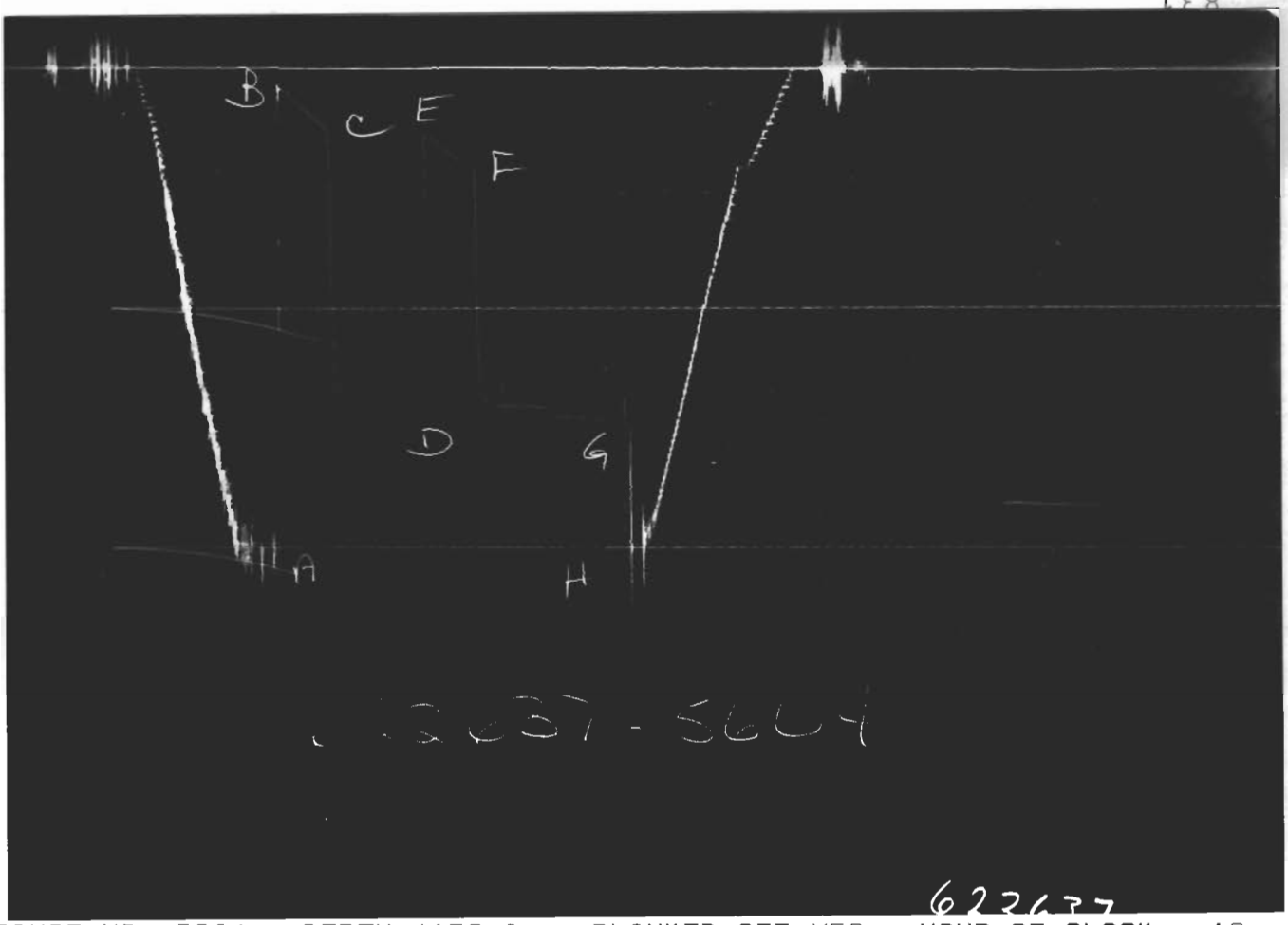


622637 - 5605

622637

GAUGE NO: 5605 DEPTH: 4116.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1965.3				
B	INITIAL FIRST FLOW	61.7		30.0	30.3	F
C	FINAL FIRST FLOW	238.5				
C	INITIAL FIRST CLOSED-IN	238.5		60.0	59.3	C
D	FINAL FIRST CLOSED-IN	1437.7				
E	INITIAL SECOND FLOW	258.3		30.0	29.7	F
F	FINAL SECOND FLOW	408.4				
F	INITIAL SECOND CLOSED-IN	408.4		90.0	90.7	C
G	FINAL SECOND CLOSED-IN	1440.7				
H	FINAL HYDROSTATIC	1956.1				



622637

GAUGE NO: 5604 DEPTH: 4172.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1977	1980.1			
B	INITIAL FIRST FLOW	62	67.4	30.0	30.3	F
C	FINAL FIRST FLOW	236	254.6			
C	INITIAL FIRST CLOSED-IN	236	254.6	60.0	59.3	C
D	FINAL FIRST CLOSED-IN	1443	1451.5			
E	INITIAL SECOND FLOW	256	272.7	30.0	29.7	F
F	FINAL SECOND FLOW	441	425.9			
F	INITIAL SECOND CLOSED-IN	441	425.9	90.0	90.7	C
G	FINAL SECOND CLOSED-IN	1463	1453.5			
H	FINAL HYDROSTATIC	1957	1971.6			

21557

EQUIPMENT & HOLE DATA

FORMATION TESTED: "A" LANSING KC
NET PAY (ft):
GROSS TESTED FOOTAGE: 38.0
ALL DEPTHS MEASURED FROM: KB
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 2133.0
TOTAL DEPTH (ft): 4175.0
PACKER DEPTH(S) (ft): 4131, 4137
FINAL SURFACE CHOKE (in): 0.25000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.20
MUD VISCOSITY (sec): 42
ESTIMATED HOLE TEMP. (°F): 111
ACTUAL HOLE TEMP. (°F): ____ @ _____ ft

TICKET NUMBER: 62263700

DATE: 12-18-87 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: PRATT

TESTER: J. AREND

WITNESS: S. ALBURG

DRILLING CONTRACTOR: RED TIGER #2

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY		CHLORIDES
PIT	____ @	°F	19000 ppm
RECOVERY	0.060 @	70 °F	115720 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:

130 FEET OF MUDDY WATER
660 FEET OF SALTWATER
TOP RECOVERY: 85% MUD - 15% WATER
30% MUD - 70% WATER
5% MUD - 95% WATER

MEASURED FROM TESTER VALVE

REMARKS:

ADDITIONAL FLUID PROPERTIES OF RECOVERY: 1.135 SP. GRAVITY; LIGHT IN IRON, 6.77 PH; 10120 MPL CALCIUM, AND LIGHT IN SULFATES.

LEASE OWNER: RAMCO DRILLING SERVICES, INCORPORATED AND PENDLETON LAND AND EXPLORATION, INCORPORATED

TYPE & SIZE MEASURING DEVICE: _____					TICKET NO: 62263700
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
12-17-87					
2130					CALLED OUT FOR JOB
2300					ON LOCATION AT TIME REQUESTED
					RIG CIRCULATING
12-18-87					
0240					STARTED CLOCKS
0315					PICKED-UP TOOLS
0337					TOOL THROUGH TABLE
0507					TOOL ON BOTTOM
0510					OPENED TOOL - WEAK BLOW INCREASING
0518					BLOW OFF BOTTOM OF BUCKET
0540					CLOSED TOOL - FAIR BLOW OFF
					BOTTOM OF BUCKET.
0540					REOPENED TOOL - WEAK BLOW INCREASING
0658					FAIR BLOW OFF BOTTOM OF BUCKET
0710					CLOSED TOOL - FAIR BLOW OFF
					BOTTOM OF BUCKET.
0840					OPENED BYPASS - STARTED OUT OF
					HOLE WITH TEST.
1030					TOOL AT TABLE
1110					TOOL LAID DOWN

29557

TICKET NO: 62263700	GAUGE NO: 5605
CLOCK NO: 26864 HOUR: 12	DEPTH: 4116.0

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	61.7			
	2	5.0	74.3	12.6		
	3	10.0	111.4	37.1		
	4	15.0	146.1	34.7		
	5	20.0	177.8	31.6		
	6	25.0	207.9	30.1		
C	7	30.3	238.5	30.6		
			FIRST CLOSED-IN			
C	1	0.0	238.5			
	2	4.0	1254.5	1016.0	3.5	0.933
	3	8.0	1340.6	1102.1	6.3	0.680
	4	12.0	1379.1	1140.6	8.6	0.547
	5	16.0	1396.8	1158.4	10.5	0.461
	6	20.0	1405.5	1167.0	12.0	0.401
	7	24.0	1412.9	1174.4	13.4	0.355
	8	28.0	1418.2	1179.7	14.6	0.319
	9	32.0	1422.9	1184.4	15.6	0.290
	10	36.0	1425.9	1187.4	16.5	0.265
	11	40.0	1428.7	1190.2	17.3	0.245
	12	44.0	1431.4	1192.9	18.0	0.228
	13	48.0	1433.6	1195.1	18.6	0.213
	14	52.0	1435.6	1197.1	19.2	0.200
	15	56.0	1436.9	1198.4	19.7	0.188
D	16	59.3	1437.7	1199.2	20.1	0.179
			SECOND FLOW			
E	1	0.0	258.3			
	2	5.0	277.1	18.8		
	3	10.0	307.1	30.0		
	4	15.0	334.8	27.7		
	5	20.0	360.1	25.3		
	6	25.0	386.0	25.9		
F	7	29.7	408.4	22.4		
			SECOND CLOSED-IN			
F	1	0.0	408.4			
	2	5.0	1335.0	926.7	4.6	1.117
	3	10.0	1379.0	970.6	8.6	0.843
	4	15.0	1395.8	987.4	12.0	0.698
	5	20.0	1405.5	997.1	15.0	0.602
	6	25.0	1413.3	1004.9	17.7	0.531
	7	30.0	1418.3	1009.9	20.0	0.477
	8	35.0	1422.1	1013.8	22.1	0.434
	9	40.0	1425.3	1016.9	24.0	0.398
	10	45.0	1428.2	1019.8	25.7	0.368

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	11	50.0	1429.8	1021.4	27.3	0.342
	12	55.0	1431.5	1023.1	28.7	0.320
	13	60.0	1433.5	1025.1	30.0	0.301
	14	65.0	1435.2	1026.8	31.2	0.284
	15	70.0	1436.2	1027.8	32.3	0.269
	16	75.0	1437.7	1029.3	33.3	0.255
	17	80.0	1438.8	1030.4	34.3	0.243
	18	85.0	1439.8	1031.4	35.2	0.232
G	19	90.7	1440.7	1032.3	36.1	0.220

REMARKS:

TICKET NO: 62263700	GAUGE NO: 5604
CLOCK NO: 6947 HOUR: 12	DEPTH: 4172.0

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	67.4			
	2	5.0	93.2	25.8		
	3	10.0	132.6	39.3		
	4	15.0	165.4	32.8		
	5	20.0	196.0	30.6		
	6	25.0	225.8	29.8		
C	7	30.3	254.6	28.8		
			FIRST CLOSED-IN			
C	1	0.0	254.6			
	2	4.0	1212.2	957.6	3.5	0.933
	3	8.0	1349.7	1095.1	6.3	0.682
	4	12.0	1394.9	1140.3	8.6	0.546
	5	16.0	1411.5	1156.9	10.5	0.461
	6	20.0	1421.2	1166.6	12.1	0.401
	7	24.0	1428.0	1173.3	13.4	0.355
	8	28.0	1433.6	1178.9	14.5	0.319
	9	32.0	1437.8	1183.1	15.6	0.289
	10	36.0	1441.0	1186.4	16.5	0.266
	11	40.0	1443.3	1188.7	17.2	0.245
	12	44.0	1445.9	1191.2	18.0	0.228
	13	48.0	1448.0	1193.4	18.6	0.213
	14	52.0	1449.3	1194.7	19.2	0.199
	15	56.0	1450.9	1196.2	19.7	0.188
D	16	59.3	1451.5	1196.8	20.1	0.179
			SECOND FLOW			
E	1	0.0	272.7			
	2	5.0	298.2	25.5		
	3	10.0	329.4	31.2		
	4	15.0	357.1	27.7		
	5	20.0	382.1	25.0		
	6	25.0	405.4	23.3		
F	7	29.7	425.9	20.5		
			SECOND CLOSED-IN			
F	1	0.0	425.9			
	2	5.0	1331.8	905.9	4.6	1.114
	3	10.0	1391.2	965.4	8.5	0.846
	4	15.0	1409.1	983.3	12.0	0.699
	5	20.0	1419.8	993.9	15.0	0.601
	6	25.0	1426.8	1001.0	17.6	0.531
	7	30.0	1432.0	1006.2	20.0	0.477
	8	35.0	1436.1	1010.3	22.1	0.434
	9	40.0	1439.5	1013.7	24.0	0.398
	10	45.0	1442.0	1016.1	25.7	0.368

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
			SECOND CLOSED-IN - CONTINUED			
	11	50.0	1444.3	1018.5	27.3	0.343
	12	55.0	1446.4	1020.5	28.7	0.320
	13	60.0	1447.7	1021.8	30.0	0.301
	14	65.0	1448.8	1023.0	31.2	0.284
	15	70.0	1449.8	1024.0	32.3	0.269
	16	75.0	1451.0	1025.1	33.3	0.255
	17	80.0	1452.3	1026.4	34.3	0.243
	18	85.0	1452.9	1027.1	35.2	0.232
G	19	90.7	1453.5	1027.7	36.1	0.220

REMARKS:

29557

TICKET NO. 62263700

		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE	4.500	3.826	2268.0	
4	FLEX WEIGHT	4.500	2.250	1730.0	
50	IMPACT REVERSING SUB	5.875	2.750	1.0	3978.0
4	FLEX WEIGHT	4.500	2.250	124.0	
5	CROSSOVER	5.875	2.750	1.0	
12	DUAL CIP VALVE	5.875	0.870	6.0	
60	HYDROSPRING TESTER	5.000	0.750	5.0	4114.0
80	AP RUNNING CASE	5.000	2.250	4.0	4116.0
15	JAR	5.000	1.750	5.0	
16	VR SAFETY JOINT	5.000	1.000	3.0	
70	OPEN HOLE PACKER	6.750	1.530	6.0	4131.0
70	OPEN HOLE PACKER	6.750	1.530	6.0	4137.0
5	CROSSOVER	5.875	2.750	1.0	
11	HANDLING SUB & CHOKE ASSEMBLY	5.875	2.750	5.0	
5	CROSSOVER	5.875	2.750	1.0	
20	FLUSH JOINT ANCHOR	5.000	3.350	25.0	
81	BLANKED-OFF RUNNING CASE	5.000		4.0	4172.0
	TOTAL DEPTH				4175.0

EQUIPMENT DATA