

STRICKLAND "A"  
LEASE NAME

1  
WELL NO.

1  
TEST NO.

4200.' - 4220.'  
TESTED INTERVAL

R.R.A. INCORPORATED  
LEASE OWNER/COMPANY NAME

LEGAL LOCATION  
SEC. - TWP. - RNG.

12-35S-1W

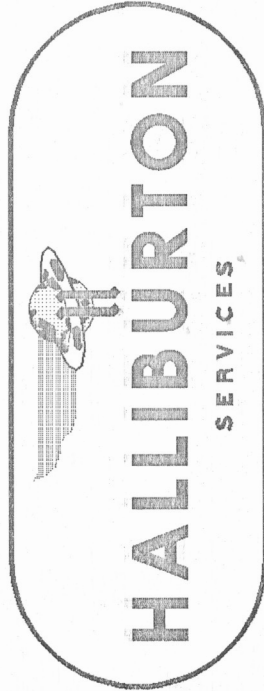
FIELD  
AREA

COUNTY

SUMNER

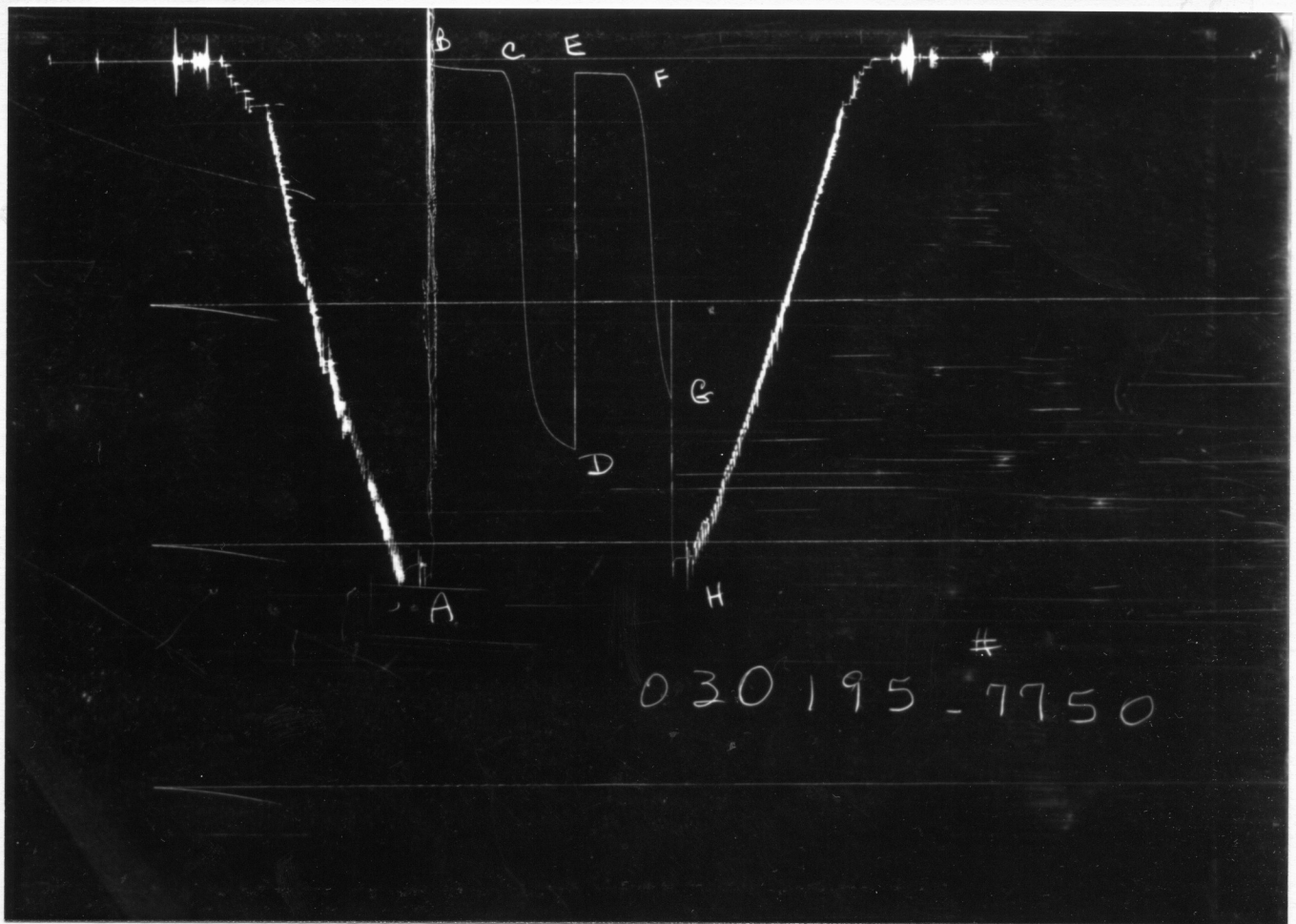
STATE

KANSAS NMSM



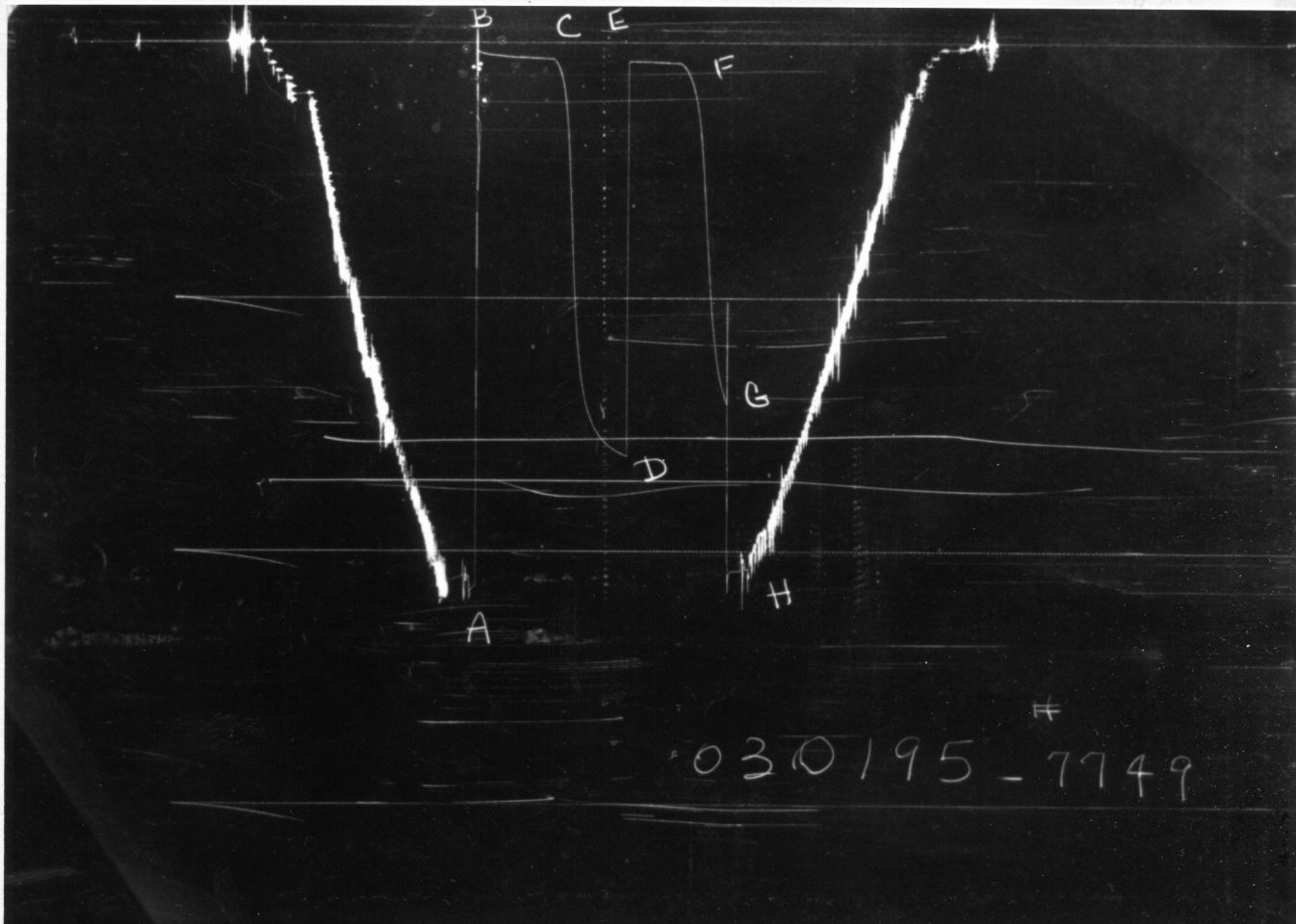
TICKET NO. 03019500  
04-OCT-82  
WINFIELD

FORMATION TESTING SERVICE REPORT



GAUGE NO: 7750 DEPTH: 4183.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2130.4			
B	INITIAL FIRST FLOW		15.6			
C	FINAL FIRST FLOW		50.0	45.0	45.2	F
C	INITIAL FIRST CLOSED-IN		50.0			
D	FINAL FIRST CLOSED-IN		1616.6	45.0	44.8	C
E	INITIAL SECOND FLOW		61.5			
F	FINAL SECOND FLOW		66.0	30.0	30.8	F
F	INITIAL SECOND CLOSED-IN		66.0			
G	FINAL SECOND CLOSED-IN		1409.8	30.0	29.1	C
H	FINAL HYDROSTATIC		2070.6			



GAUGE NO: 7749 DEPTH: 4216.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2130	2143.7			
B	INITIAL FIRST FLOW	40	36.7			
C	FINAL FIRST FLOW	70	64.0	45.0	45.2	F
C	INITIAL FIRST CLOSED-IN	70	64.0			
D	FINAL FIRST CLOSED-IN	1631	1628.4	45.0	44.8	C
E	INITIAL SECOND FLOW	79	79.4			
F	FINAL SECOND FLOW	79	81.6	30.0	30.8	F
F	INITIAL SECOND CLOSED-IN	79	81.6			
G	FINAL SECOND CLOSED-IN	1406	1424.0	30.0	29.1	C
H	FINAL HYDROSTATIC	2081	2083.6			

## EQUIPMENT & HOLE DATA

FORMATION TESTED: SIMPSON SAND  
 NET PAY (ft): \_\_\_\_\_  
 GROSS TESTED FOOTAGE: 20.0  
 ALL DEPTHS MEASURED FROM: R. KELLY BUSHING  
 CASING PERFS. (ft): \_\_\_\_\_  
 HOLE OR CASING SIZE (in): 7.875  
 ELEVATION (ft): 0  
 TOTAL DEPTH (ft): 4220.0  
 PACKER DEPTH(S) (ft): 4194, 4200  
 FINAL SURFACE CHOKE (in): 0.250  
 BOTTOM HOLE CHOKE (in): 0.750  
 MUD WEIGHT (lb/gal): 9.60  
 MUD VISCOSITY (sec): 41  
 ESTIMATED HOLE TEMP. (°F): 117  
 ACTUAL HOLE TEMP. (°F): 128 @ 4215.0 ft

TICKET NUMBER: 03019500  
 DATE: 9-28-82 TEST NO: 1  
 TYPE DST: OPEN HOLE  
 HALLIBURTON CAMP: WINFIELD  
 TESTER: LEE HALL  
 WITNESS: JIM HANCOCK  
 DRILLING CONTRACTOR: COMPANY TOOLS

## FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
<u>TOP</u>	<u>0.320 @ 78 °F</u>	<u>15177 ppm</u>
<u>BOTTOM</u>	<u>0.257 @ 78 °F</u>	<u>21248 ppm</u>
<u>PIT</u>	<u>0.891 @ 78 °F</u>	<u>3035 ppm</u>
<u>(CHLORIDES ARE MPL NOT PPM)</u>	<u> @ °F</u>	<u> ppm</u>
_____	<u> @ °F</u>	<u> ppm</u>
_____	<u> @ °F</u>	<u> ppm</u>

## SAMPLER DATA

P<sub>stg</sub> 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:

90 FEET OF MUD

MEASURED FROM TESTER VALVE

## REMARKS:



TICKET NO: 03019500

CLOCK NO: 14246 HOUR: 12



GAUGE NO: 7750

DEPTH: 4183.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$	REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$	
FIRST FLOW						SECOND CLOSED-IN - CONTINUED						
B	1	0.0	15.6			8	14.0	438.5	372.5	11.8	0.808	
	2	5.0	27.3	11.8		9	16.0	644.4	578.4	13.2	0.761	
	3	10.0	33.0	5.7		10	18.0	881.5	815.5	14.6	0.718	
	4	15.0	37.1	4.1		11	20.0	1067.8	1001.8	15.9	0.681	
	5	20.0	40.5	3.4		12	22.0	1195.3	1129.3	17.1	0.648	
	6	25.0	42.9	2.4		13	24.0	1284.8	1218.8	18.2	0.620	
	7	30.0	44.6	1.8		14	26.0	1343.6	1277.6	19.3	0.594	
	8	35.0	46.4	1.8		15	28.0	1393.0	1327.0	20.5	0.570	
	9	40.0	48.1	1.8		G	16	29.1	1409.8	1343.8	21.1	0.558
C	10	45.2	50.0	1.9								
FIRST CLOSED-IN												
C	1	0.0	50.0									
	2	3.0	75.6	25.6	2.8	1.209						
	3	6.0	138.0	88.0	5.3	0.934						
	4	9.0	303.9	253.9	7.5	0.780						
	5	12.0	754.2	704.2	9.5	0.678						
	6	15.0	1140.7	1090.7	11.3	0.604						
	7	18.0	1331.1	1281.1	12.9	0.546						
	8	21.0	1427.6	1377.6	14.4	0.499						
	9	24.0	1485.2	1435.2	15.7	0.460						
	10	27.0	1523.3	1473.3	16.9	0.427						
	11	30.0	1550.6	1500.6	18.0	0.400						
	12	33.0	1570.7	1520.7	19.1	0.375						
	13	36.0	1586.1	1536.1	20.1	0.353						
	14	39.0	1597.8	1547.8	20.9	0.335						
	15	42.0	1608.4	1558.4	21.8	0.317						
D	16	44.8	1616.6	1566.6	22.5	0.303						
SECOND FLOW												
E	1	0.0	61.5									
	2	5.0	59.2	-2.4								
	3	10.0	59.6	0.4								
	4	15.0	60.7	1.1								
	5	20.0	62.3	1.5								
	6	25.0	63.9	1.6								
F	7	30.8	66.0	2.1								
SECOND CLOSED-IN												
F	1	0.0	66.0									
	2	2.0	74.6	8.7	1.9	1.591						
	3	4.0	93.1	27.1	3.8	1.300						
	4	6.0	118.9	52.9	5.6	1.136						
	5	8.0	156.5	90.5	7.2	1.022						
	6	10.0	208.2	142.3	8.8	0.935						
	7	12.0	295.6	229.6	10.3	0.867						

REMARKS:

TICKET NO: 03019500

CLOCK NO: 4197 HOUR: 12


















GAUGE NO: 7749

DEPTH: 4216.0

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	36.7		
	2	5.0	43.5	6.7	
	3	10.0	48.8	5.4	
	4	15.0	52.1	3.3	
	5	20.0	55.9	3.8	
	6	25.0	57.5	1.7	
	7	30.0	58.5	1.0	
	8	35.0	60.4	1.9	
	9	40.0	62.0	1.6	
C	10	45.2	64.0	2.0	
FIRST CLOSED-IN					
C	1	0.0	64.0		
	2	3.0	92.8	28.8	2.8 1.203
	3	6.0	160.7	96.7	5.3 0.929
	4	9.0	348.0	284.0	7.5 0.779
	5	12.0	800.2	736.2	9.5 0.679
	6	15.0	1166.8	1102.8	11.2 0.604
	7	18.0	1347.5	1283.5	12.9 0.546
	8	21.0	1440.7	1376.7	14.3 0.499
	9	24.0	1496.1	1432.1	15.7 0.460
	10	27.0	1535.2	1471.2	16.9 0.427
	11	30.0	1561.6	1497.7	18.0 0.399
	12	33.0	1582.7	1518.7	19.1 0.375
	13	36.0	1597.9	1534.0	20.1 0.353
	14	39.0	1610.6	1546.6	20.9 0.334
	15	42.0	1620.8	1556.9	21.8 0.318
D	16	44.8	1628.4	1564.4	22.5 0.303
SECOND FLOW					
E	1	0.0	79.4		
	2	5.0	74.4	-5.0	
	3	10.0	74.8	0.4	
	4	15.0	76.3	1.5	
	5	20.0	77.8	1.5	
	6	25.0	79.5	1.7	
F	7	30.8	81.6	2.2	
SECOND CLOSED-IN					
F	1	0.0	81.6		
	2	2.0	93.3	11.6	2.0 1.584
	3	4.0	111.4	29.8	3.8 1.301
	4	6.0	137.7	56.1	5.6 1.134
	5	8.0	175.6	93.9	7.2 1.023
	6	10.0	234.4	152.8	8.9 0.933
	7	12.0	317.6	235.9	10.3 0.866

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
	8	14.0	465.3	383.6	11.8 0.809
	9	16.0	676.7	595.1	13.2 0.760
	10	18.0	902.3	820.6	14.6 0.718
	11	20.0	1092.4	1010.7	15.9 0.681
	12	22.0	1214.9	1133.2	17.1 0.648
	13	24.0	1305.8	1224.1	18.2 0.620
	14	26.0	1361.9	1280.3	19.4 0.593
	15	28.0	1406.7	1325.0	20.5 0.570
G	16	29.1	1424.0	1342.3	21.1 0.558

REMARKS:

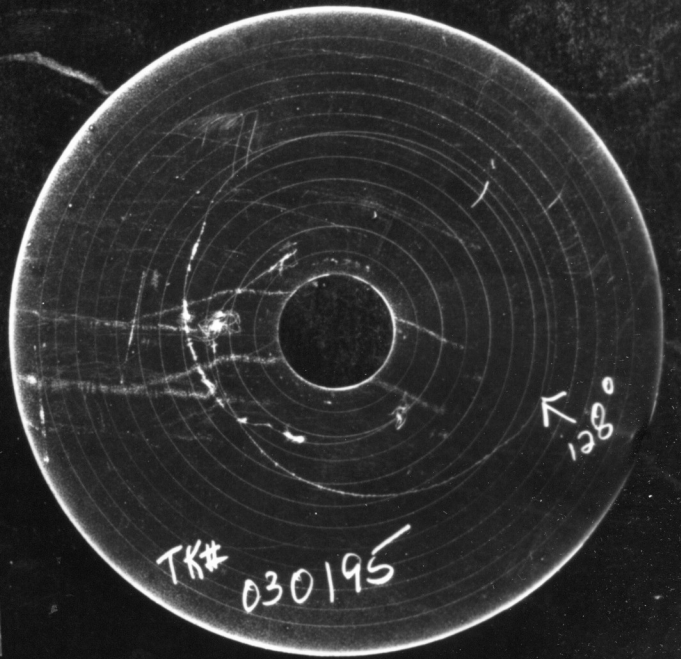
		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	3800.0	
3		DRILL COLLARS.....	5.750	2.250	270.0	
50		IMPACT REVERSING SUB.....	5.750	2.250	1.0	4044.0
3		DRILL COLLARS.....	5.750	2.250	122.0	
5		CROSSOVER.....	5.750	2.250	1.0	
11		HANDLING SUB & CHOKE ASSEMBLY...			5.0	
12		DUAL CIP VALVE.....		0.870	5.0	
60		HYDROSPRING TESTER.....	5.000	0.750	4.0	4182.0
80		AP RUNNING CASE.....	5.000		4.0	4183.0
16		VR SAFETY JOINT.....	5.000	1.750	3.0	
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	4194.0
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	4200.0
20		FLUSH JOINT ANCHOR.....	5.000	2.370	13.0	
83		HT-500 TEMPERATURE CASE.....	5.000		1.0	4215.0
81		BLANKED-OFF RUNNING CASE.....	5.000		4.0	4216.0
		TOTAL DEPTH				4220.0

EQUIPMENT DATA

**TEMPERATURE**

**RECORDER**

**CHART**



**10° each circle**

Indicated Flow Capacity

$$kh = \frac{1637 Q_g T}{m}$$

md-ft

Average Effective Permeability

$$k = \frac{kh}{h}$$

md

Skin Factor

$$S = 1.151 \left[ \frac{m(P^*) - m(P_f)}{m} - \text{LOG} \frac{kt}{\phi \mu c_t r_w^2} + 3.23 \right] \text{ ---}$$

Damage Ratio

$$DR = \frac{m(P^*) - m(P_f)}{m(P^*) - m(P_f) - 0.87 mS} \text{ ---}$$

Indicated Flow Rate (Maximum)

$$AOF_1 = \frac{Q_g m(P^*)}{m(P^*) - m(P_f)} \text{ MCFD}$$

Indicated Flow Rate (Minimum)

$$AOF_2 = Q_g \sqrt{\frac{m(P^*)}{m(P^*) - m(P_f)}} \text{ MCFD}$$

Approx. Radius of Investigation

$$r_i = 0.032 \sqrt{\frac{kt}{\phi \mu c_t}} \text{ ft}$$

STRICKLAND

LEASE NAME

A-1

WELL NO.

1

TEST NO.

4200.' - 4244.'

TESTED INTERVAL

RRA INCORPORATED

LEASE OWNER/COMPANY NAME

LEGAL LOCATION  
SEC. - TWP. - RNG.

12-35S-1E

FIELD  
AREA

WILDCAT

COUNTY

SUMNER

STATE

KANSAS

DR

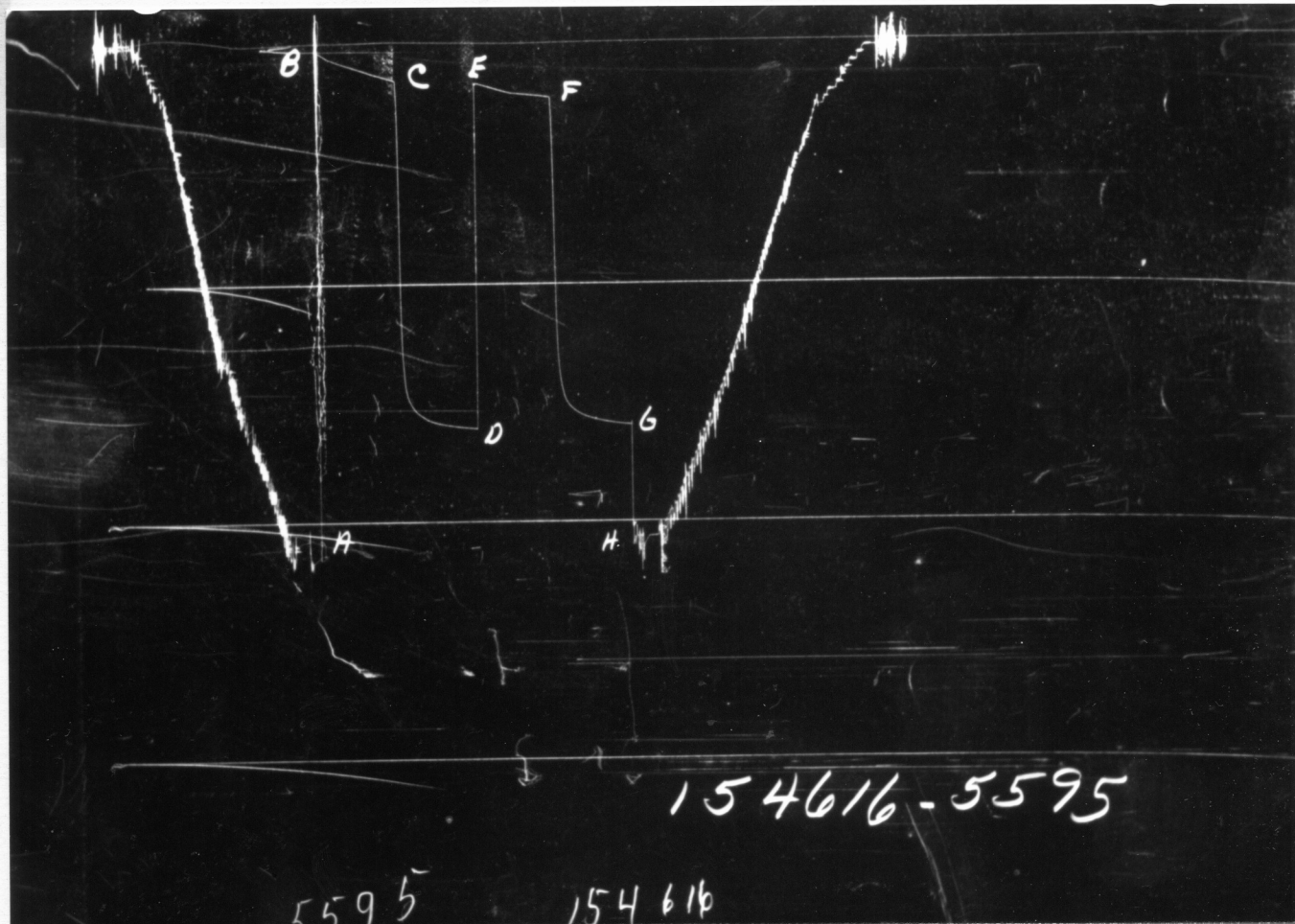


TICKET NO. 15461600

04-OCT-82

WINFIELD

FORMATION TESTING SERVICE REPORT



GAUGE NO: 5595 DEPTH: 4189.0 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2093	2082.5			
B	INITIAL FIRST FLOW	41	31.4			
C	FINAL FIRST FLOW	167	148.0	46.0	46.2	F
C	INITIAL FIRST CLOSED-IN	167	148.0			
D	FINAL FIRST CLOSED-IN	1625	1612.3	45.0	45.8	C
E	INITIAL SECOND FLOW	167	164.4			
F	FINAL SECOND FLOW	219	219.5	45.0	44.2	F
F	INITIAL SECOND CLOSED-IN	219	219.5			
G	FINAL SECOND CLOSED-IN	1614	1597.8	45.0	45.6	C
H	FINAL HYDROSTATIC	2093	2073.3			



GAUGE NO: 6704 DEPTH: 4238.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2102.8			
B	INITIAL FIRST FLOW		44.4			
C	FINAL FIRST FLOW		163.5	46.0	46.2	F
C	INITIAL FIRST CLOSED-IN		163.5			
D	FINAL FIRST CLOSED-IN		1627.5	45.0	45.8	C
E	INITIAL SECOND FLOW		175.8			
F	FINAL SECOND FLOW		233.4	45.0	44.2	F
F	INITIAL SECOND CLOSED-IN		233.4			
G	FINAL SECOND CLOSED-IN		1613.4	45.0	45.6	C
H	FINAL HYDROSTATIC		2086.6			

## EQUIPMENT & HOLE DATA

FORMATION TESTED: SIMPSON SAND  
 NET PAY (ft): 20.0  
 GROSS TESTED FOOTAGE: 44.0  
 ALL DEPTHS MEASURED FROM: R. KELLY BUSHING  
 CASING PERFS. (ft): \_\_\_\_\_  
 HOLE OR CASING SIZE (in): 7.875  
 ELEVATION (ft): 1099  
 TOTAL DEPTH (ft): 4250.0  
 PACKER DEPTH(S) (ft): 4200, 4244  
 FINAL SURFACE CHOKE (in): 0.250  
 BOTTOM HOLE CHOKE (in): 0.750  
 MUD WEIGHT (lb/gal): 9.50  
 MUD VISCOSITY (sec): 60  
 ESTIMATED HOLE TEMP. (°F): 117  
 ACTUAL HOLE TEMP. (°F):      @      ft

TICKET NUMBER: 15461600  
 DATE: 9-29-82 TEST NO: 1  
 TYPE DST: ON BTM. STRADDLE  
 HALLIBURTON CAMP:  
WINFIELD  
 TESTER: CHARLES CAPEHART  
BOB TERNES  
 WITNESS: JIM HANCOCK  
 DRILLING CONTRACTOR:  
RRR DRILLING COMPANY

## FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
TOP	<u>0.162</u> @ <u>78</u> °F	<u>33895</u> ppm
MIDDLE	<u>0.140</u> @ <u>78</u> °F	<u>44519</u> ppm
BOTTOM	<u>0.106</u> @ <u>78</u> °F	<u>65767</u> ppm
PIT	<u>0.542</u> @ <u>78</u> °F	<u>4047</u> ppm
(CHLORIDES ARE IN	_____ @ _____ °F	_____ ppm
MPL NOT PPM)	_____ @ _____ °F	_____ ppm

## SAMPLER DATA

Pstg 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:

20' OF MUD  
 300' OF SALTWATER CUT MUD  
 124' GASSY SALTWATER

MEASURED FROM  
TESTER VALVE

## REMARKS:

CHLORIDES IN FLUID PROPERTIES ARE MEASURED IN (MPL)



TICKET NO: 15461600

CLOCK NO: 13664 HOUR: 12



GAUGE NO: 5595

DEPTH: 4189.0

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	31.4			
2	9.0	58.7	27.3		
3	18.0	82.5	23.8		
4	27.0	103.0	20.5		
5	36.0	124.0	20.9		
6	45.0	143.5	19.6		
C 7	46.2	148.0	4.5		
FIRST CLOSED-IN					
C 1	0.0	148.0			
2	3.0	1340.3	1192.3	2.8	1.213
3	6.0	1491.2	1343.2	5.3	0.940
4	9.0	1527.6	1379.6	7.6	0.787
5	12.0	1550.2	1402.2	9.5	0.686
6	15.0	1564.8	1416.8	11.3	0.611
7	18.0	1578.2	1430.2	13.0	0.552
8	21.0	1586.3	1438.2	14.4	0.505
9	24.0	1590.6	1442.6	15.8	0.466
10	27.0	1595.7	1447.7	17.0	0.434
11	30.0	1599.3	1451.3	18.2	0.405
12	33.0	1602.5	1454.5	19.3	0.380
13	36.0	1605.0	1457.0	20.2	0.359
14	39.0	1607.6	1459.6	21.2	0.339
15	42.0	1609.4	1461.4	22.0	0.323
D 16	45.8	1612.3	1464.3	23.0	0.303
SECOND FLOW					
E 1	0.0	164.4			
2	8.0	172.6	8.2		
3	16.0	190.9	18.3		
4	24.0	203.0	12.1		
5	32.0	208.8	5.8		
6	40.0	215.0	6.2		
F 7	44.2	219.5	4.5		
SECOND CLOSED-IN					
F 1	0.0	219.5			
2	3.0	1297.7	1078.3	2.9	1.492
3	6.0	1459.1	1239.7	5.6	1.206
4	9.0	1510.6	1291.2	8.2	1.044
5	12.0	1534.4	1314.9	10.6	0.931
6	15.0	1548.8	1329.3	12.8	0.848
7	18.0	1559.1	1339.6	15.0	0.779
8	21.0	1567.6	1348.1	17.0	0.725
9	24.0	1574.5	1355.0	19.0	0.678
10	27.0	1579.2	1359.7	20.8	0.638

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
11	30.0	1583.0	1363.6	22.5	0.604
12	33.0	1587.0	1367.5	24.2	0.573
13	36.0	1591.0	1371.6	25.7	0.545
14	39.0	1593.9	1374.4	27.2	0.521
15	42.0	1596.0	1376.6	28.7	0.499
G 16	45.6	1597.8	1378.4	30.3	0.475

REMARKS:

TICKET NO: 15461600

CLOCK NO: 17422 HOUR: 12






















GAUGE NO: 6704

DEPTH: 4238.0

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	44.4		
	2	9.0	78.4	34.0	
	3	18.0	100.5	22.1	
	4	27.0	120.6	20.1	
	5	36.0	142.4	21.8	
	6	45.0	160.6	18.2	
C	7	46.2	163.5	2.9	
FIRST CLOSED-IN					
C	1	0.0	163.5		
	2	3.0	1360.7	1197.2	2.8 1.217
	3	6.0	1504.1	1340.6	5.3 0.937
	4	9.0	1543.9	1380.4	7.5 0.788
	5	12.0	1567.3	1403.8	9.5 0.685
	6	15.0	1583.1	1419.6	11.3 0.610
	7	18.0	1594.4	1431.0	12.9 0.553
	8	21.0	1601.6	1438.1	14.4 0.505
	9	24.0	1607.5	1444.1	15.8 0.466
	10	27.0	1611.2	1447.7	17.0 0.433
	11	30.0	1615.3	1451.8	18.2 0.405
	12	33.0	1618.4	1455.0	19.3 0.380
	13	36.0	1621.1	1457.6	20.2 0.359
	14	39.0	1623.5	1460.0	21.2 0.339
	15	42.0	1625.3	1461.8	22.0 0.322
D	16	45.8	1627.5	1464.0	23.0 0.303
SECOND FLOW					
E	1	0.0	175.8		
	2	8.0	188.5	12.7	
	3	16.0	205.6	17.1	
	4	24.0	217.3	11.7	
	5	32.0	224.0	6.6	
	6	40.0	230.1	6.1	
F	7	44.2	233.4	3.3	
SECOND CLOSED-IN					
F	1	0.0	233.4		
	2	3.0	1295.3	1061.9	2.9 1.490
	3	6.0	1472.2	1238.8	5.6 1.207
	4	9.0	1527.1	1293.7	8.2 1.045
	5	12.0	1550.3	1316.9	10.6 0.932
	6	15.0	1565.5	1332.1	12.9 0.847
	7	18.0	1576.0	1342.6	15.0 0.780
	8	21.0	1583.9	1350.5	17.1 0.724
	9	24.0	1590.7	1357.3	18.9 0.679
	10	27.0	1595.5	1362.1	20.8 0.639

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
	11	30.0	1599.6	1366.2	22.5 0.603
	12	33.0	1603.1	1369.7	24.2 0.572
	13	36.0	1606.4	1373.0	25.7 0.546
	14	39.0	1609.5	1376.1	27.3 0.521
	15	42.0	1611.9	1378.5	28.7 0.499
G	16	45.6	1613.4	1380.0	30.3 0.475

REMARKS:

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.500	3.826	3773.0	
3		DRILL COLLARS.....	6.250	2.250	279.0	
50		IMPACT REVERSING SUB.....	5.030	2.000	1.0	4049.0
3		DRILL COLLARS.....	6.250	2.250	124.0	
5		CROSSOVER.....	5.870	2.000	1.0	
11		HANDLING SUB & CHOKE ASSEMBLY...	5.870	3.000	4.7	
12		DUAL CIP VALVE.....	5.030	0.870	4.9	
60		HYDROSPRING TESTER.....	5.000	0.750	4.7	4188.0
80		AP RUNNING CASE.....	5.000	2.250	4.1	4189.0
16		VR SAFETY JOINT.....	5.000	1.000	2.8	
17		PRESSURE EQUALIZING CROSSOVER...	5.000		1.0	
70		OPEN HOLE PACKER.....	6.750	1.530	5.8	4200.0
20		FLUSH JOINT ANCHOR.....	5.000	2.370	33.0	
17		PRESSURE EQUALIZING CROSSOVER...	5.000		1.0	
81		BLANKED-OFF RUNNING CASE.....	5.000	2.250	4.1	4238.0
70		OPEN HOLE PACKER.....	6.750	1.530	5.8	4244.0
5		CROSSOVER.....	5.000	2.370	0.6	
21		PERFORATED TAIL PIPE.....	5.000	2.370	1.0	
23		BLANK SUB.....	5.000		1.0	
TOTAL DEPTH						4250.0

EQUIPMENT DATA