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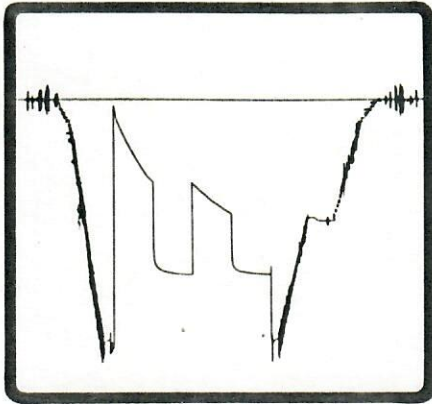
JAN 18 1983

COLORADO OIL & GAS CONS. COMM.



00653443

FORMATION TESTING SERVICE REPORT



ARNOLD C

LEASE NAME

1

WELL NO.

1

TEST NO.

4023.1 - 4137.1

TESTED INTERVAL

TEXAS OIL AND GAS CORPORATION

LEASE OWNER/COMPANY NAME



Duncan, Oklahoma 73536



A Halliburton Company

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COLO. OIL & GAS CONS. CO.



TICKET NO. 05740000

30-DEC-82

LAMAR

FORMATION TESTING SERVICE REPORT

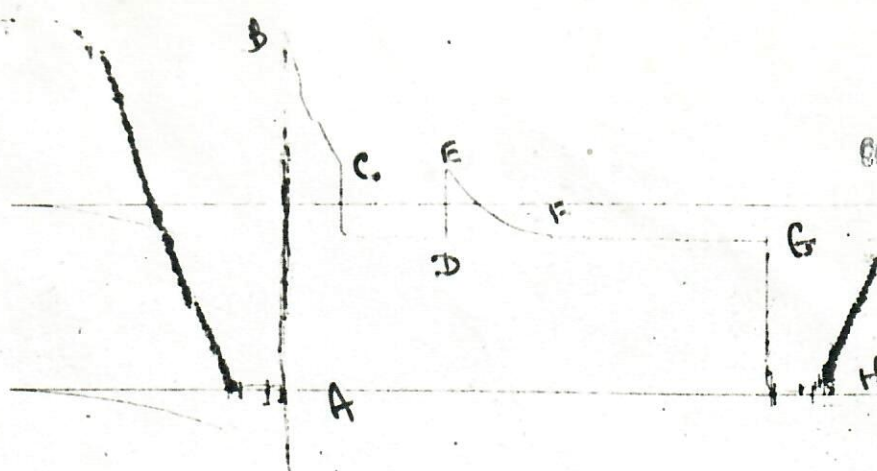
ARNOLD C	1	1	4023.1 - 4137.1	TEXAS OIL AND GAS CORPORATION
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME
LEGAL LOCATION SEC. 10 TWP. 10 R. 10	18-19S-47W	FIELD AREA	WILDCAT	COUNTY
				KIOWA
				STATE
				COLORADO NM/NM

39

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COLORADO OIL & GAS CONS. COMM.

BEST IMAGE
AVAILABLE



057400 - 3993

GAUGE NO: 3993 DEPTH: 4004.0 BLANKED OFF: NO HOUR OF CLOCK: 12

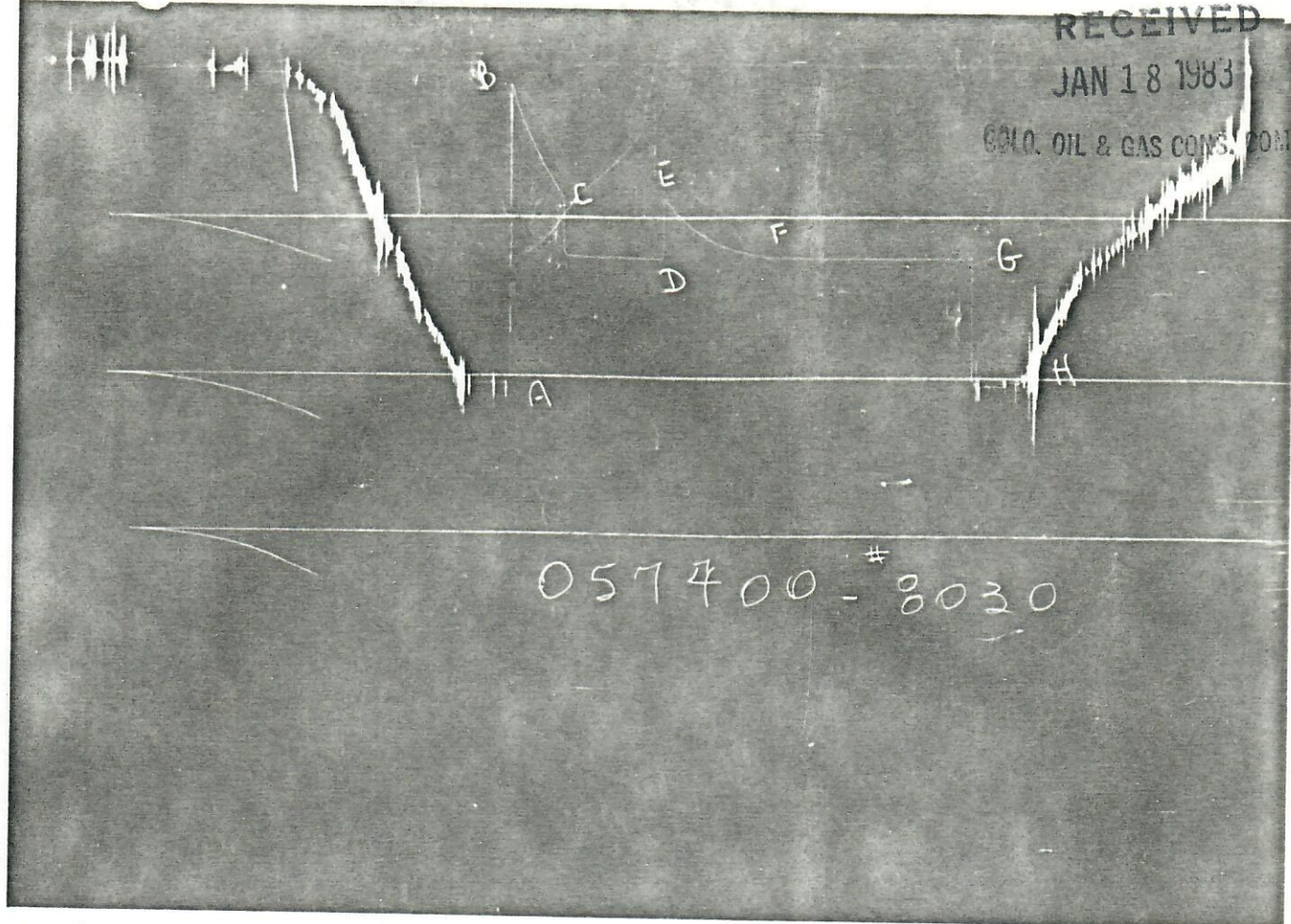
ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	1957	1972.6			
B	INITIAL FIRST FLOW	57	70.6			
C	FINAL FIRST FLOW	768	781.1	30.0	32.0	F
C	INITIAL FIRST CLOSED-IN	768	781.1			
D	FINAL FIRST CLOSED-IN	1164	1183.2	60.0	59.2	C
E	INITIAL SECOND FLOW	768	815.8			
F	FINAL SECOND FLOW	1164	1165.8	60.0	59.2	F
F	INITIAL SECOND CLOSED-IN	1164	1165.8			
G	FINAL SECOND CLOSED-IN	1164	1180.9	120.0	121.6	C
H	FINAL HYDROSTATIC	1957	1974.3			

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GULF OIL & GAS CORP. (CON)



057400-8030

GAUGE NO: 8030 DEPTH: 4134.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2035	2038.4			
B	INITIAL FIRST FLOW	96	137.2			
C	FINAL FIRST FLOW	831	860.8	30.0	32.0	F
C	INITIAL FIRST CLOSED-IN	831	860.8			
D	FINAL FIRST CLOSED-IN	1213	1240.2	60.0	59.2	C
E	INITIAL SECOND FLOW	831	875.2			
F	FINAL SECOND FLOW	1213	1227.1	60.0	59.2	F
F	INITIAL SECOND CLOSED-IN	1213	1227.1			
G	FINAL SECOND CLOSED-IN	1213	1238.3	120.0	121.6	C
H	FINAL HYDROSTATIC	2035	2037.3			

BEST IMAGE
AVAILABLE

28

6

JAN 18 1983

EQUIPMENT & HOLE DATA

FORMATION TESTED: MARMATON
 NET PAY (ft): 14.0
 GROSS TESTED FOOTAGE: 114.0
 ALL DEPTHS MEASURED FROM: _____
 CASING PERFS. (ft): _____
 HOLE OR CASING SIZE (in): 7.875
 ELEVATION (ft): 0
 TOTAL DEPTH (ft): 4137.0
 PACKER DEPTH(S) (ft): 4017. 4023
 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): 110
 ACTUAL HOLE TEMP. (°F): 150 @ 4132.0 ft

TICKET NUMBER: 091240000 CONS. COM. 1.DATE: 12-16-82 TEST NO: 1TYPE DST: OPEN HOLEHALLIBURTON CAMP:
LAMARTESTER: MR. REPPHUNWITNESS: FRANK PFANNENSTEILDRILLING CONTRACTOR:
KISSINGER # 3FLUID PROPERTIES FOR
RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
TDP- PH 9.0	0.760 @ 56 °F	8073 ppm
MIDDLE-PH 9.0	0.540 @ 56 °F	10596 ppm
BOTTOM - PH 8.5	0.570 @ 58 °F	10092 ppm
PIT - PH 10.0	1.800 @ 56 °F	1513 ppm
SAMPLER	0.470 @ 54 °F	15138 ppm
	@ °F	ppm

SAMPLER DATA

Pstg AT SURFACE: 40
 cu.ft. OF GAS: 0.00
 cc OF OIL: 0
 cc OF WATER: 2240
 cc OF MUD: 0
 TOTAL LIQUID cc: 2240

HYDROCARBON PROPERTIES

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

CUSHION DATA

TYPE AMOUNT WEIGHT

RECOVERED:

1800 FEET OF MUDDY SULPHUR WATER
 850 FEET OF SULPHUR WATER

MEASURED FROM
TESTER VALVE

REMARKS:

READINGS FROM GAUGE # 3993 ARE HIGHLY QUESTIONABLE DUE TO GAUGE
 MALFUNCTIONING.

JAN 18 1983

TICKET NO: 05740000

[illegible]

JAN 18 1983

TICKET NO: 05740000

CLOCK NO: 18765 HOUR: 12


HALLIBURTON
SERVICES

GAUGE NO: 3908 & GAS CONS. COMM.

DEPTH: 4004.0

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
FIRST FLOW					
B 1	0.0	70.6			
2	5.0	218.7	148.1		
3	10.0	435.4	216.7		
4	15.0	539.0	103.6		
5	20.0	571.2	32.2		
6	25.0	667.7	96.5		
7	30.0	750.6	82.9		
C 8	32.0	781.1	30.5		
FIRST CLOSED-IN					
C 1	0.0	781.1			
2	1.0	1146.3	365.3	1.0	1.499
3	2.0	1157.3	376.3	1.9	1.223
4	3.0	1161.7	380.6	2.7	1.068
5	4.0	1164.4	383.3	3.5	0.956
6	5.0	1167.2	386.2	4.3	0.867
7	6.0	1168.6	387.6	5.0	0.802
8	7.0	1169.6	388.6	5.8	0.744
9	8.0	1170.2	389.1	6.4	0.699
10	9.0	1171.5	390.4	7.0	0.657
11	10.0	1172.9	391.8	7.6	0.622
12	15.0	1175.1	394.1	10.2	0.496
13	20.0	1175.7	394.6	12.3	0.416
14	30.0	1170.6	389.5	15.5	0.315
15	40.0	1176.7	395.6	17.8	0.255
16	50.0	1179.7	398.6	19.5	0.215
D 17	59.2	1183.2	402.1	20.8	0.188
SECOND FLOW					
E 1	0.0	815.8			
2	5.0	855.1	39.3		
3	10.0	913.7	58.6		
4	15.0	963.0	49.3		
5	20.0	1003.8	40.8		
6	25.0	1040.8	37.0		
7	30.0	1073.9	33.1		
8	35.0	1104.0	30.1		
9	40.0	1122.9	18.9		
10	45.0	1138.3	15.4		
11	50.0	1149.7	11.4		
12	55.0	1158.3	8.6		
F 13	59.2	1165.8	7.5		
SECOND CLOSED-IN					
F 1	0.0	1165.8			
2	1.0	1171.0	5.2	1.0	1.979

REF	MINUTES	PRESSURE	ΔP	$\frac{1 \times \Delta t}{1 + \Delta t}$	$\log \frac{1 + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
3	2.0	1173.4	7.6	2.0	1.667
4	3.0	1174.9	9.0	2.9	1.490
5	4.0	1174.0	8.2	3.8	1.375
6	5.0	1173.0	7.2	4.8	1.283
7	10.0	1171.3	5.5	9.0	1.006
8	15.0	1171.5	5.6	12.9	0.850
9	20.0	1172.7	6.9	16.4	0.746
10	25.0	1178.4	12.6	19.6	0.668
11	30.0	1179.4	13.6	22.6	0.607
12	40.0	1180.2	14.4	27.8	0.516
13	50.0	1178.8	13.0	32.3	0.451
14	60.0	1175.1	9.3	36.2	0.401
15	70.0	1176.4	10.6	39.6	0.362
16	80.0	1181.4	15.5	42.6	0.331
17	90.0	1180.8	15.0	45.3	0.304
18	100.0	1178.5	12.7	47.7	0.281
19	110.0	1175.8	10.0	49.9	0.262
G 20	121.6	1180.9	15.1	52.1	0.243

REMARKS:

22

9

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TICKET NO: 05740000

CLOCK NO: 26293 HOUR: 12



GAUGE NO: 8030 OIL & GAS CONS. COMM.

DEPTH: 4134.0

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	137.2			
2	5.0	305.3	168.1		
3	10.0	437.7	132.4		
4	15.0	557.8	120.1		
5	20.0	655.4	97.6		
6	25.0	746.8	91.4		
7	30.0	828.2	81.4		
C 8	32.0	860.8	32.6		
FIRST CLOSED-IN					
C 1	0.0	860.8			
2	1.0	1216.8	356.0	1.0	1.510
3	2.0	1223.8	363.0	1.9	1.222
4	3.0	1226.2	365.4	2.7	1.067
5	4.0	1228.3	367.4	3.6	0.954
6	5.0	1229.2	368.4	4.3	0.868
7	6.0	1230.8	370.0	5.1	0.800
8	7.0	1231.1	370.3	5.8	0.745
9	8.0	1232.1	371.2	6.4	0.698
10	9.0	1232.9	372.0	7.1	0.657
11	10.0	1233.3	372.5	7.6	0.623
12	15.0	1235.6	374.7	10.2	0.495
13	20.0	1236.2	375.4	12.3	0.415
14	30.0	1238.3	377.4	15.5	0.316
15	40.0	1238.7	377.9	17.8	0.255
16	50.0	1239.4	378.5	19.5	0.215
D 17	59.2	1240.2	379.3	20.8	0.188
SECOND FLOW					
E 1	0.0	875.2			
2	5.0	922.6	47.5		
3	10.0	981.8	59.2		
4	15.0	1032.2	50.4		
5	20.0	1072.2	40.0		
6	25.0	1110.6	38.4		
7	30.0	1141.3	30.6		
8	35.0	1166.7	25.4		
9	40.0	1186.0	19.4		
10	45.0	1200.6	14.6		
11	50.0	1211.3	10.6		
12	55.0	1220.0	8.7		
F 13	59.2	1227.1	7.1		
SECOND CLOSED-IN					
F 1	0.0	1227.1			
2	1.0	1235.4	8.3	1.0	1.963

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
9	2.0	1236.5	9.4	2.0	1.669
4	3.0	1236.7	9.5	2.9	1.495
5	4.0	1237.5	10.3	3.8	1.378
6	5.0	1237.5	10.3	4.8	1.281
7	10.0	1237.6	10.5	9.0	1.004
8	15.0	1237.6	10.5	12.9	0.850
9	20.0	1237.6	10.5	16.4	0.746
10	25.0	1237.6	10.5	19.6	0.667
11	30.0	1238.1	11.0	22.6	0.606
12	40.0	1238.1	11.0	27.8	0.516
13	50.0	1238.1	11.0	32.3	0.451
14	60.0	1238.1	11.0	36.2	0.401
15	70.0	1238.1	11.0	39.6	0.362
16	80.0	1238.1	11.0	42.6	0.331
17	90.0	1238.1	11.0	45.3	0.304
18	100.0	1237.5	10.3	47.7	0.281
19	110.0	1237.3	10.2	49.9	0.262
G 20	121.6	1238.3	11.1	52.1	0.243

REMARKS:

K5

10

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COLO. OIL & GAS CONG. COMM.

TEMPERATURE RECORDER CHART

50°F

057400

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

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

Damage Ratio

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

Indicated Flow
Rate (Maximum)

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

MCFD

Indicated Flow
Rate (Minimum)

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

MCFD

Approx. Radius of
Investigation






















$$r_i = 0.032 \sqrt{\frac{kt}{\phi \mu c_f}}$$

ft

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JAN 18 1983

TICKET NO. 05740000
OIL & GAS CONS. BOARD

		O.D.	I.D.	LENGTH	DEPTH	
1		DRILL PIPE.....	4.000	3.340	3588.0	
3		DRILL COLLARS.....	6.250	2.250	330.0	
5		CROSSOVER.....	5.630	3.820	1.0	
50		IMPACT REVERSING SUB.....	5.630	3.820	1.0	3920.0
5		CROSSOVER.....	5.630	3.820	1.0	
3		DRILL COLLARS.....	6.250	2.250	60.0	
5		CROSSOVER.....	5.630	3.820	1.0	
11		HANDLING SUB & CHOKE ASSEMBLY...	4.500	3.820	5.0	
13		DUAL CIP SAMPLER.....	5.000	0.870	7.0	
60		HYDROSPRING TESTER.....	5.000	0.750	5.0	3999.0
80		AP RUNNING CASE.....	5.000	3.060	4.0	4001.0
15		JAR.....	5.030	1.750	5.0	
16		VR SAFETY JOINT.....	5.000	1.000	3.0	
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	4017.0
70		OPEN HOLE PACKER.....	6.750	1.530	6.0	4023.0
20		FLUSH JOINT ANCHOR.....	5.000	3.400	13.0	
5		CROSSOVER.....	5.630	3.820	1.0	
3		DRILL COLLARS.....	6.250	2.250	92.0	
5		CROSSOVER.....	5.630	3.820	1.0	
5		CROSSOVER.....	5.630	3.820	1.0	
83		HT-500 TEMPERATURE CASE.....	5.000		1.0	4132.0
81		BLANKED-OFF RUNNING CASE.....	5.000	3.060	4.0	4134.0
TOTAL DEPTH					4137.0	

EQUIPMENT DATA

12