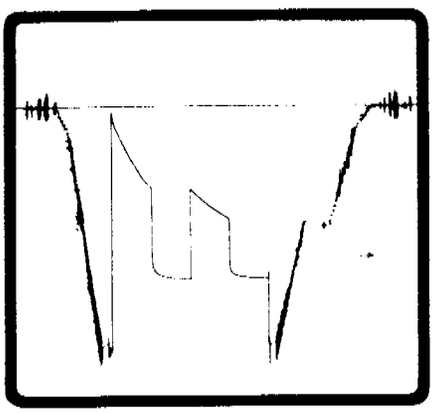
APPENDIX 2

DRILL STEM TEST RESULTS

FORMATION TESTING SERVICE REPORT



HALLIBURTON
SERVICES

Duncan, Oklahoma 73536

A Halliburton Company

1296-R5 Ⓓ—Southwestern

NOMENCLATURE

B	=	Formation Volume Factor (Res Vol / Std Vol)	—
c_t	=	System Total Compressibility	(Vol / Vol) / psi
DR	=	Damage Ratio	—
h	=	Estimated Net Pay Thickness	Ft
k	=	Permeability	md
m	=	(Liquid) Slope Extrapolated Pressure Plot	psi cycle
		(Gas) Slope Extrapolated m(P) Plot	MM psi^2/ cp cycle
$m(P^*)$	=	Real Gas Potential at P^*	MM psi^2 cp
$m(P_f)$	=	Real Gas Potential at P_f	MM psi^2 cp
AOF_1	=	Maximum Indicated Absolute Open Flow at Test Conditions	MCFD
AOF_2	=	Minimum Indicated Absolute Open Flow at Test Conditions	MCFD
P^*	=	Extrapolated Static Pressure	Psig
P_f	=	Final Flow Pressure	Psig
Q	=	Liquid Production Rate During Test	BPD
Q_1	=	Theoretical Liquid Production w/ Damage Removed	BPD
Q_g	=	Measured Gas Production Rate	MCFD
r_i	=	Approximate Radius of Investigation	Ft
r_w	=	Radius of Well Bore	Ft
S	=	Skin Factor	
t	=	Total Flow Time Previous to Closed-in	Minutes
Δt	=	Closed-in Time at Data Point	Minutes
T	=	Temperature Rankine	R
ϕ	=	Porosity	—
μ	=	Viscosity of Gas or Liquid	cp
Log	=	Common Log	

DRILL STEM TEST REPORT

OPERATOR: MOONIE OIL NL DATE: 19-3-86

WELL NAME: EAST MEREENIE NO. 28 A P BASIN: AMADEUS

FIELD: MEREENIE STRUCTURE:

TEST NO: 1 FORMATION: PACOOTA P3 SAND NO: P3-120/130

ELEVATIONS GL: 2455 FT KB: 2475 FT PACKER AT: 4701.09 FT

INTERVAL: 4706 TO 4756 FT TEST TYPE: OPEN HOLE

TEST STATISTICS

COMPANY: HALLIBURTON OPERATOR: NORM COWLEY

TOOL: HYDROSPRING CHOKE SIZE TOP: .5 INS BOTTOM: .75 INS

ANCHOR LENGTH: 17.06 FT OD: 5 INS

PERFORATED: 4738.94 TO 4756 FT LENGTH: 17.06 FT

PRESSURE RECORDER:	TYPE	POSITION	DEPTH	CLOCK
1.	BOURDON TUBE	TOP	4678.99	24 HR
2.	BOURDON TUBE	BOTTOM	4754 FT	24 HR

CAPACITIES

HOLE SIZE: 7.625 INS INTERVAL: 4706 TO 4756 FT

RAT HOLE: 7.625 INS INTERVAL: 4701.09 TO 4756 FT

DRILL PIPE: .01422 BLS/FT COLLARS: .0049 BLS/FT

TIME RECORD

ACTUAL		ELAPSED TIMES	
START CLOCK:	0134 HRS	START TO SEPERATOR:	HRS
START IN HOLE:	0204 HRS	STOP SEPERATOR:	HRS
TOOL OPENED:	0714 HRS	IF:	20 MINS
TOOL SHUT:	0734 HRS	ISI:	40 MINS
TOOL OPENED:	0814 HRS	FF:	302 MINS
TOOL SHUT:	1316 HRS	FSI:	358 MINS
PACK PULLED:	1914 HRS	TOTAL FLOW:	322 MINS
OUT OF HOLE:	0030 HRS	SEPERATOR FLOW:	MINS

PRESSURE RECORD

CHART: BOTTOM CLOCK: 24 HR

IHP:	2095	PSI
IFP:	54.6	PSI
ISIP:	1395.8	PSI
FFP:	185.4	PSI
FSIP:	1639.4	PSI
FHP:	2081	PSI
WHFP:		PSI

RECOVERY

GTS: 15 MIN AT CU FT/D

OTS: MIN AT BLS/D (US)

WTS: MIN AT BLS/D (US)

GOR: CU FT/BL

ORIFICE SIZE: INS

FLOW PROVER PRESSURE: PSI

SG OF GAS: GM/CC

SG OF OIL: API AT °F

WATER SALINITY: PPM

MAXIMUM TEMP: 146 °F

NATURE OF BLOW: INITIAL FLOW; INSTANT WEAK BLOW INCREASING TO STRONG AFTER 2 MINS REDUCING TO MODERATE AFTER 16 MINS. GTS AFTER 15 MINS. MANIFOLD OPEN WITH 1 PSI FROM 0716 - 0743 HRS FINAL FLOW; GAS AT SURFACE, 6 PSI AT 0816 HRS DECREASING TO 0 PSI AT 0850 HRS. STRONG BLOW DECREASING TO WEAK AT 0950 HRS. AT 1124 HRS SURGING FROM VERY WEAK TO MODERATE IN 1-2 MIN CYCLES. AT 1234 HRS SURGING FROM DEAD TO STRONG IN 10 MIN CYCLES. REVERSE CIRCULATION RECOVERED 7.7 BBLS OF RAT-HOLE OIL MUD (GAS CUT). CHART SHOWS GAS BUBBLING OR PLUGGING AT END OF FF. LOW PERMEABILITY WITH HIGH RESERVOIR PRESSURE.

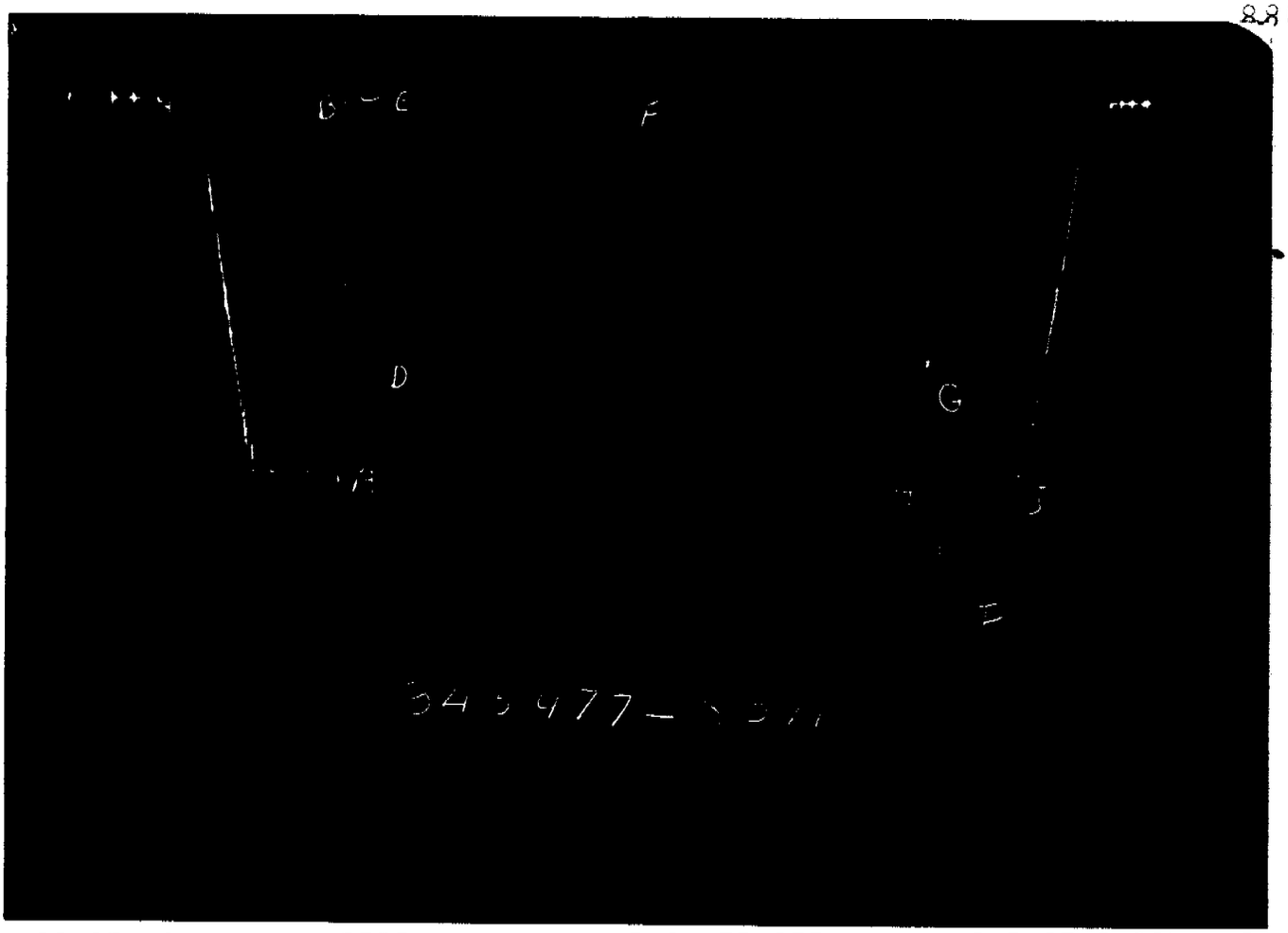
EAST MEREENIE	28	1	4701.0 - 4756.0	MOONIE OIL COMPANY LTD.
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME

LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE
SEE REMARKS	AMADEUS BASIN	N. TERRITORY	AUSTRALIA OR

HALLIBURTON
SERVICES

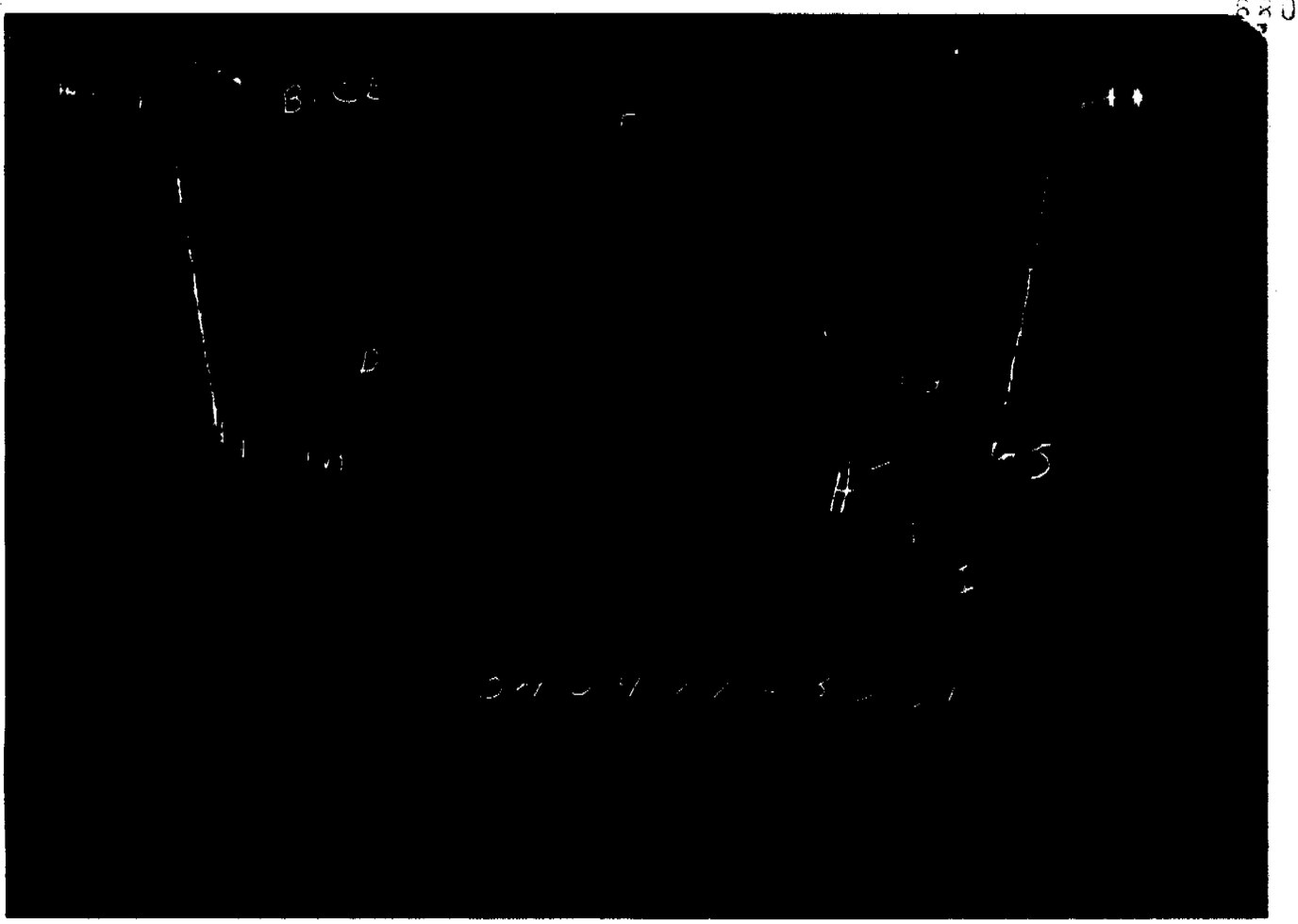
TICKET NO. 34547700
02-APR-86
ALICE SPRINGS

FORMATION TESTING SERVICE REPORT



GAUGE NO: 8511 DEPTH: 4678.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2029	2031.7			
B	INITIAL FIRST FLOW	24	22.9	20.0	19.9	F
C	FINAL FIRST FLOW	45	48.3			
C	INITIAL FIRST CLOSED-IN	45	48.3	40.0	39.3	C
D	FINAL FIRST CLOSED-IN	1355	1358.9			
E	INITIAL SECOND FLOW	71	68.8	302.0	303.5	F
F	FINAL SECOND FLOW	163	167.9			
F	INITIAL SECOND CLOSED-IN	163	167.9	358.0	357.3	C
G	FINAL SECOND CLOSED-IN	1593	1598.0			
H	HYDROSTATIC		2031.3			
I	REVERSING		2631.9			
J	FINAL HYDROSTATIC	2026	2047.8			



GAUGE NO: 8531 DEPTH: 4753.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2095	2075.1			
B	INITIAL FIRST FLOW	59	54.2	20.0	19.9	F
C	FINAL FIRST FLOW	65	62.6			
C	INITIAL FIRST CLOSED-IN	65	62.6	40.0	39.3	C
D	FINAL FIRST CLOSED-IN	1396	1398.3			
E	INITIAL SECOND FLOW	76	63.3	302.0	303.5	F
F	FINAL SECOND FLOW	185	184.0			
F	INITIAL SECOND CLOSED-IN	185	184.0	358.0	357.3	C
G	FINAL SECOND CLOSED-IN	1639	1635.2			
H	HYDROSTATIC		2077.5			
I	REVERSING		2686.5			
J	FINAL HYDROSTATIC	2081	2094.4			

EQUIPMENT & HOLE DATA

FORMATION TESTED: PACOOTA P3-120/130
NET PAY (ft): _____
GROSS TESTED FOOTAGE: 55.0
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft): _____
HOLE OR CASING SIZE (in): 7.625
ELEVATION (ft): 2475.0
TOTAL DEPTH (ft): 4756.0
PACKER DEPTH(S) (ft): 4693, 4701
FINAL SURFACE CHOKE (in): 0.50000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 8.30
MUD VISCOSITY (sec): 45
ESTIMATED HOLE TEMP. (°F): _____
ACTUAL HOLE TEMP. (°F): 146 @ 4752.0 ft

TICKET NUMBER: 34547700

DATE: 3-19-86 TEST NO: 1

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: ALICE SPRINGS

TESTER: N. COWLEY

WITNESS: A. EDWARDS ?????

DRILLING CONTRACTOR: MEREENIE #1

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY	CHLORIDES
_____	_____ @ ____°F	_____ 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:

7.7 BBLS. OF GAS CUT RAT HOLE MUD

MEASURED FROM TESTER VALVE

REMARKS:

LEGAL LOCATION: LAT. 24 DEGREES, 01', 33" SOUTH AND
LONG. 131 DEGREES, 36', 58" EAST

COMPLETE CALCULATION SERVICE COULD NOT BE PERFORMED DUE TO LACK OF SUFFICIENT HYDROCARBON PRODUCTION FROM WHICH TO OBTAIN A PRODUCTION RATE. PLOTS ARE INCLUDED AT THE END OF THIS REPORT FOR YOUR INSPECTION.

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE | TICKET NO: 34547700

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
3-19-86					
0145					MADE UP TOOL
0257					TOOL MADE UP AND WENT IN HOLE
0630					HEAD UP
0709					SEATED PACKERS WITH 30,000#
0714	.50				OPENED TOOL WITH A VERY WEAK
					BLOW
0716	.50	1			BLOW INCREASED TO STRONG
0729	.50	1			GAS TO SURFACE IN 15 MINUTES
0730	.50	1			BLOW DECREASED TO MODERATE
					BLOW
0734		1			CLOSED TOOL
0814	.50				OPENED TOOL WITH A MODERATE
					BLOW AND GAS TO SURFACE
0815	.50	2.50			BLOW INCREASED TO A STRONG
					BLOW
0816	.50	6			
0819	.50	2			
0839	.50	1			BLOW DECREASED TO A MODERATE
					BLOW
0850	.50				
0950	.50				BLOW DECREASED TO A WEAK BLOW
1030	.50				WEAK BLOW
1124	.50				BLOW SURGING FROM A WEAK TO
					MODERATE BLOW IN 1 MINUTE
					CYCLES
1200	.50				SAME AS ABOVE
1234	.50				BLOW SURGING BETWEEN DEAD AND
					STRONG IN 10 MINUTES CYCLES
1316					CLOSED TOOL
1914					PULLED FREE AND OPENED BYPASS
1922					DROPPED BAR TO REVERSE
					CIRCULATE
1923					PIN BROKE-STARTED REVERSING
2100	.				HEAD DOWN AND PUMPED PILL
2120					PULLED OUT OF HOLE
2320					TOOL AT FLOOR

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE	TICKET NO: 34547700

TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
3-20-86					
0030					TOOL BROKE DOWN AND LAID OUT

TICKET NO: 34547700

CLOCK NO: 29491 HOUR: 24

HALLIBURTON SERVICES

GAUGE NO: 8511

DEPTH: 4678.0

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	22.9			
	2	2.0	40.1	17.2		
	3	4.0	47.0	6.8		
	4	6.0	48.9	2.0		
	5	8.0	48.9	0.0		
	6	10.0	48.9	0.0		
	7	12.0	48.9	0.0		
	8	14.0	48.9	0.0		
	9	16.0	48.4	-0.5		
	10	18.0	48.4	0.0		
C	11	19.9	48.3	-0.1		
			FIRST CLOSED-IN			
C	1	0.0	48.3			
	2	1.0	89.7	41.4	1.0	1.303
	3	2.0	131.8	83.6	1.8	1.046
	4	3.0	178.0	129.7	2.6	0.882
	5	4.0	227.2	178.9	3.3	0.777
	6	5.0	271.6	223.3	4.0	0.695
	7	6.0	318.8	270.5	4.6	0.636
	8	7.0	370.7	322.4	5.2	0.583
	9	8.0	416.7	368.4	5.7	0.542
	10	9.0	456.8	408.6	6.2	0.508
	11	10.0	503.6	455.3	6.7	0.475
	12	12.0	597.5	549.2	7.5	0.425
	13	14.0	677.2	628.9	8.2	0.385
	14	16.0	760.8	712.5	8.9	0.352
	15	18.0	836.2	787.9	9.5	0.324
	16	20.0	905.9	857.6	10.0	0.300
	17	22.0	970.7	922.4	10.5	0.280
	18	24.0	1043.7	995.4	10.9	0.262
	19	26.0	1105.6	1057.3	11.3	0.247
	20	28.0	1156.3	1108.0	11.6	0.233
	21	30.0	1203.5	1155.2	12.0	0.221
	22	35.0	1302.1	1253.8	12.7	0.196
D	23	39.3	1358.9	1310.6	13.2	0.178
			SECOND FLOW			
E	1	0.0	68.8			
	2	10.0	88.7	19.9		
	3	20.0	90.7	2.0		
	4	30.0	91.4	0.8		
	5	40.0	91.4	0.0		
	6	50.0	91.7	0.3		
	7	60.0	92.1	0.4		
	8	70.0	95.3	3.2		
	9	80.0	98.3	3.0		
	10	90.0	101.6	3.3		

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND FLOW - CONTINUED			
	11	100.0	104.7	3.2		
	12	110.0	107.8	3.0		
	13	120.0	111.4	3.7		
	14	130.0	114.1	2.6		
	15	140.0	118.0	3.9		
	16	150.0	121.3	3.3		
	17	160.0	124.6	3.3		
	18	170.0	127.9	3.3		
	19	180.0	132.5	4.6		
	20	190.0	136.1	3.6		
	21	200.0	137.6	1.6		
	22	210.0	141.6	3.9		
	23	220.0	144.7	3.2		
	24	230.0	147.1	2.4		
	25	240.0	149.9	2.8		
	26	250.0	151.1	1.2		
	27	260.0	158.9	7.9		
	28	270.0	155.3	-3.7		
	29	280.1	149.5	-5.8		
	30	290.0	167.0	17.5		
	31	300.0	168.6	1.6		
F	32	303.5	167.9	-0.7		
			SECOND CLOSED-IN			
F	1	0.0	167.9			
	2	1.0	178.8	10.9	1.0	2.499
	3	2.0	200.1	32.2	2.0	2.212
	4	3.0	223.8	55.9	3.0	2.033
	5	4.0	244.9	77.0	3.9	1.917
	6	5.0	263.8	95.9	4.9	1.816
	7	6.0	285.0	117.1	5.9	1.740
	8	7.0	310.8	142.9	6.8	1.676
	9	8.0	338.4	170.5	7.8	1.616
	10	9.0	362.8	194.9	8.8	1.565
	11	10.0	383.2	215.3	9.7	1.522
	12	12.0	431.7	263.8	11.6	1.446
	13	14.0	489.7	321.8	13.5	1.381
	14	16.0	547.6	379.7	15.2	1.326
	15	18.0	593.8	425.9	17.1	1.278
	16	20.0	670.7	502.8	18.8	1.235
	17	22.0	756.3	588.4	20.6	1.195
	18	24.0	857.4	689.5	22.3	1.161
	19	26.0	952.9	785.0	24.1	1.128
	20	28.0	1047.3	879.4	25.8	1.098
	21	30.0	1138.6	970.7	27.4	1.071
	22	35.0	1293.9	1126.0	31.6	1.011
	23	40.0	1384.2	1216.3	35.6	0.958
	24	45.0	1435.8	1267.9	39.5	0.913
	25	50.0	1465.3	1297.4	43.3	0.873
	26	55.0	1484.7	1316.8	47.0	0.838
	27	60.0	1499.2	1331.3	50.6	0.805
	28	70.0	1517.6	1349.7	57.5	0.750

REMARKS:

TICKET NO: 34547700	GAUGE NO: 8511
CLOCK NO: 29491 HOUR: 24	DEPTH: 4678.0

HALLIBURTON SERVICES

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
29	80.0	1530.3	1362.4	64.1	0.703
30	90.0	1540.2	1372.3	70.4	0.662
31	100.0	1547.5	1379.6	76.4	0.627
32	110.0	1554.5	1386.6	82.1	0.595
33	120.0	1559.4	1391.6	87.5	0.568
34	135.0	1566.3	1398.4	95.3	0.531
35	150.0	1572.2	1404.3	102.5	0.499
36	165.0	1575.2	1407.3	109.3	0.471
37	180.0	1578.3	1410.5	115.6	0.447
38	195.0	1582.3	1414.4	121.6	0.425
39	210.0	1585.7	1417.8	127.3	0.405
40	225.0	1586.9	1419.0	132.7	0.387
41	240.0	1587.5	1419.6	137.8	0.371
42	260.0	1588.7	1420.8	144.1	0.351
43	280.0	1590.2	1422.3	150.1	0.333
44	300.0	1591.5	1423.6	155.6	0.318
45	320.0	1593.2	1425.3	160.9	0.303
46	340.0	1594.9	1427.0	165.7	0.290
G 47	357.3	1598.0	1430.1	169.8	0.280

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

REMARKS:

TICKET NO: 34547700	GAUGE NO: 8531
CLOCK NO: 29475 HOUR: 24	DEPTH: 4753.0

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	54.2			
	2	2.0	62.6	8.4		
	3	4.0	62.6	0.0		
	4	6.0	62.6	0.0		
	5	8.0	62.2	-0.4		
	6	10.0	62.2	0.0		
	7	12.0	62.2	0.0		
	8	14.0	62.2	0.0		
	9	16.0	62.2	0.0		
	10	18.0	62.2	0.0		
C	11	19.9	62.6	0.4		
			FIRST CLOSED-IN			
C	1	0.0	62.6			
	2	1.0	132.9	70.2	1.0	1.311
	3	2.0	172.8	110.1	1.8	1.036
	4	3.0	220.4	157.7	2.6	0.885
	5	4.0	269.1	206.5	3.4	0.773
	6	5.0	319.8	257.2	4.0	0.697
	7	6.0	370.9	308.3	4.6	0.636
	8	7.0	420.6	358.0	5.2	0.583
	9	8.0	461.5	398.9	5.7	0.543
	10	9.0	503.6	441.0	6.2	0.508
	11	10.0	556.5	493.9	6.7	0.476
	12	12.0	646.9	584.3	7.5	0.424
	13	14.0	728.6	665.9	8.2	0.384
	14	16.0	811.6	748.9	8.9	0.351
	15	18.0	890.7	828.0	9.4	0.324
	16	20.0	958.4	895.7	10.0	0.300
	17	22.0	1022.5	959.9	10.4	0.280
	18	24.0	1085.4	1022.8	10.9	0.262
	19	26.0	1139.3	1076.7	11.3	0.247
	20	28.0	1191.3	1128.6	11.6	0.233
	21	30.0	1241.8	1179.2	12.0	0.221
	22	35.0	1338.2	1275.6	12.7	0.195
D	23	39.3	1398.3	1335.7	13.2	0.178
			SECOND FLOW			
E	1	0.0	63.3			
	2	10.0	95.1	31.7		
	3	20.0	98.7	3.7		
	4	30.0	100.4	1.7		
	5	40.0	101.4	1.0		
	6	50.0	101.4	0.0		
	7	60.0	106.7	5.3		
	8	70.0	110.8	4.1		
	9	80.0	113.9	3.1		
	10	90.0	117.3	3.4		

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
			SECOND FLOW - CONTINUED			
	11	100.0	121.6	4.4		
	12	110.0	124.3	2.7		
	13	120.0	127.7	3.4		
	14	130.0	131.3	3.7		
	15	140.1	134.3	2.9		
	16	150.0	137.9	3.7		
	17	160.0	141.9	3.9		
	18	170.0	146.3	4.5		
	19	180.0	149.7	3.4		
	20	190.0	153.8	4.1		
	21	200.0	155.3	1.5		
	22	210.0	156.7	1.4		
	23	220.0	163.2	6.5		
	24	230.0	163.1	-0.1		
	25	240.0	163.2	0.1		
	26	250.0	166.6	3.4		
	27	260.0	174.2	7.6		
	28	270.0	169.0	-5.2		
	29	280.0	158.0	-11.0		
	30	290.0	180.6	22.6		
	31	300.0	184.1	3.5		
F	32	303.5	184.0	-0.1		
			SECOND CLOSED-IN			
F	1	0.0	184.0			
	2	1.0	198.6	14.6	1.0	2.501
	3	2.0	219.4	35.4	2.0	2.208
	4	3.0	241.0	57.0	3.0	2.039
	5	4.0	264.7	80.8	4.0	1.912
	6	5.0	289.9	105.9	5.0	1.815
	7	6.0	310.8	126.8	5.9	1.740
	8	7.0	335.3	151.3	6.9	1.673
	9	8.0	358.4	174.4	7.8	1.615
	10	9.0	379.9	195.9	8.8	1.567
	11	10.0	400.6	216.6	9.7	1.524
	12	12.0	453.7	269.7	11.6	1.446
	13	14.0	518.2	334.3	13.4	1.382
	14	16.0	571.9	387.9	15.2	1.327
	15	18.0	617.3	433.3	17.0	1.279
	16	20.0	689.7	505.7	18.8	1.235
	17	22.0	783.6	599.6	20.6	1.196
	18	24.0	870.8	686.8	22.3	1.161
	19	26.0	962.0	778.0	24.1	1.128
	20	28.0	1065.0	881.0	25.8	1.098
	21	30.0	1154.3	970.3	27.4	1.072
	22	35.0	1315.0	1131.0	31.6	1.010
	23	40.0	1411.9	1228.0	35.6	0.958
	24	45.0	1463.6	1279.6	39.5	0.913
	25	50.0	1496.9	1313.0	43.3	0.873
	26	55.0	1519.7	1335.7	47.0	0.837
	27	60.0	1535.8	1351.8	50.6	0.805
	28	70.0	1553.8	1369.8	57.5	0.750

REMARKS:

TICKET NO: 34547700

CLOCK NO: 29475 HOUR: 24

HALLIBURTON SERVICES

GAUGE NO: 8531

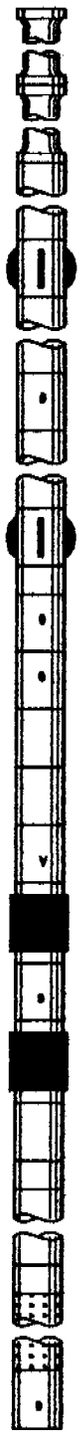
DEPTH: 4753.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
	SECOND CLOSED-IN - CONTINUED				
29	80.0	1567.7	1383.8	64.1	0.703
30	90.0	1577.7	1393.8	70.4	0.662
31	100.0	1585.5	1401.5	76.4	0.627
32	110.0	1592.0	1408.0	82.1	0.595
33	120.0	1597.5	1413.5	87.5	0.568
34	135.0	1603.7	1419.7	95.2	0.531
35	150.0	1609.3	1425.3	102.5	0.499
36	165.0	1613.5	1429.5	109.3	0.471
37	180.0	1616.1	1432.1	115.6	0.447
38	195.0	1620.7	1436.7	121.6	0.425
39	210.0	1623.9	1440.0	127.3	0.405
40	225.0	1625.5	1441.5	132.7	0.387
41	240.0	1625.5	1441.5	137.8	0.371
42	260.0	1626.9	1442.9	144.1	0.351
43	280.0	1628.5	1444.5	150.1	0.333
44	300.0	1629.7	1445.7	155.6	0.318
45	320.0	1631.4	1447.4	160.9	0.303
46	340.0	1632.7	1448.7	165.7	0.290
G 47	357.3	1635.2	1451.2	169.8	0.280

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

REMARKS:

TICKET NO. 34547700

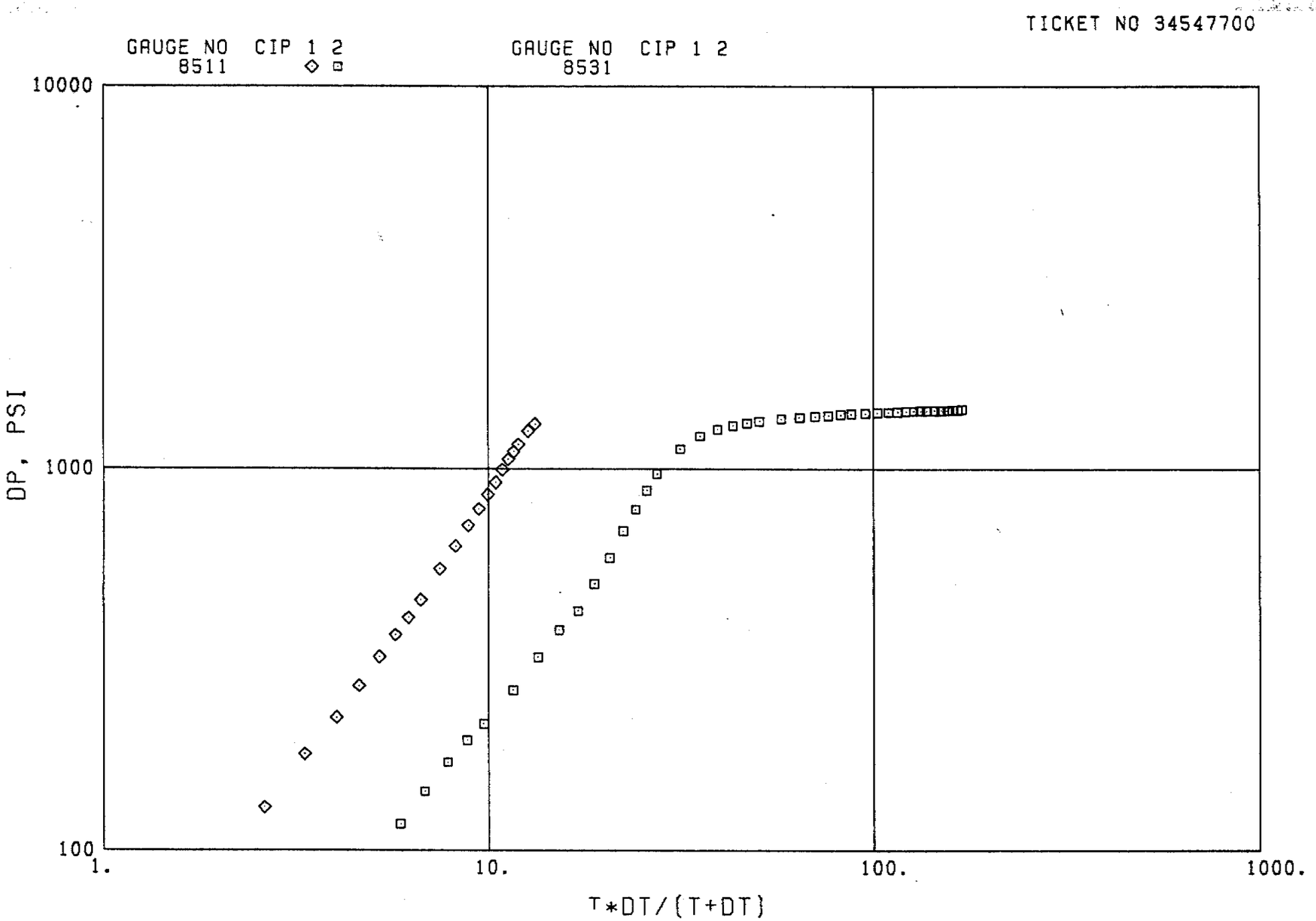


		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	3950.4	
4	FLEX WEIGHT.....	4.500	2.764	182.3	
3	DRILL COLLARS.....	6.250	2.375	457.8	
9	STABILIZER.....	6.438	2.375	6.5	
3	DRILL COLLARS.....	6.250	2.375	30.7	
50	IMPACT REVERSING SUB.....	6.250	3.000	1.0	4627.6
3	DRILL COLLARS.....	6.250	2.375	30.4	
9	STABILIZER.....	6.438	2.313	6.6	
258	BAR CATCHER SUB	6.250	1.000	1.0	4666.0
12	DUAL CIP VALVE.....	5.000	0.870	4.9	
60	HYDROSPRING TESTER.....	5.000	0.750	5.3	4676.0
80	AP RUNNING CASE.....	5.000	2.250	4.1	4678.0
15	JAR.....	5.000	1.750	5.0	
16	VR SAFETY JOINT.....	5.000	1.000	2.8	
70	OPEN HOLE PACKER.....	6.750	1.530	5.8	4693.3
18	DISTRIBUTOR VALVE.....	5.000	1.680	2.0	
70	OPEN HOLE PACKER.....	6.750	1.530	5.8	4701.0
19	ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.3	
5	CROSSOVER.....	6.250	2.200	1.0	
3	DRILL COLLARS.....	6.250	2.375	30.2	
5	CROSSOVER.....	6.250	2.250	1.0	
20	FLUSH JOINT ANCHOR.....	5.000	2.370	13.0	
81	BLANKED-OFF RUNNING CASE.....	5.000		4.1	4753.0

TOTAL DEPTH 4756.0

EQUIPMENT DATA

TICKET NO 34547700



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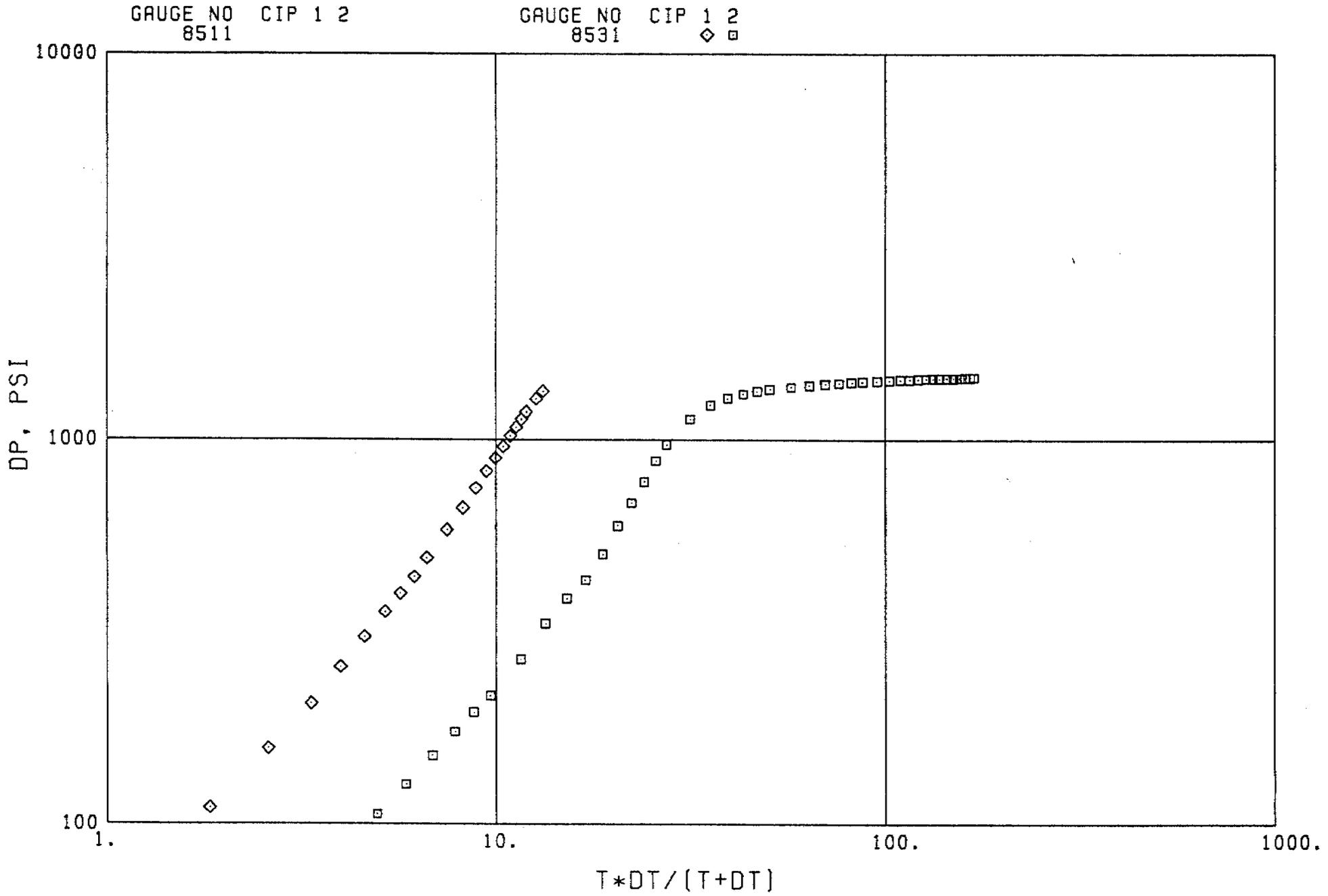
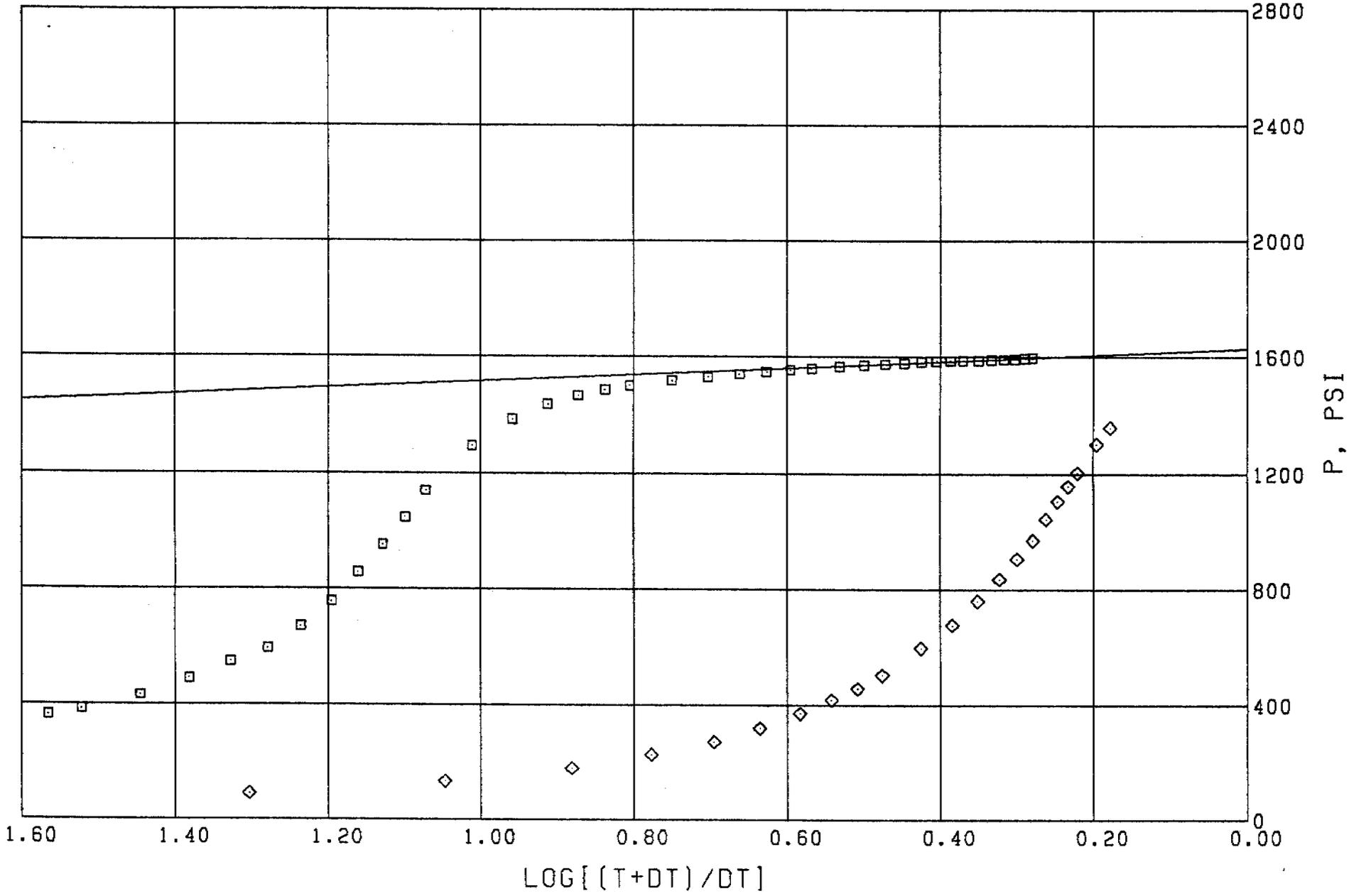


TICKET NO 34547700

GAUGE NO CIP 1 2
8511 ◇ □

GAUGE NO CIP 1 2
8531



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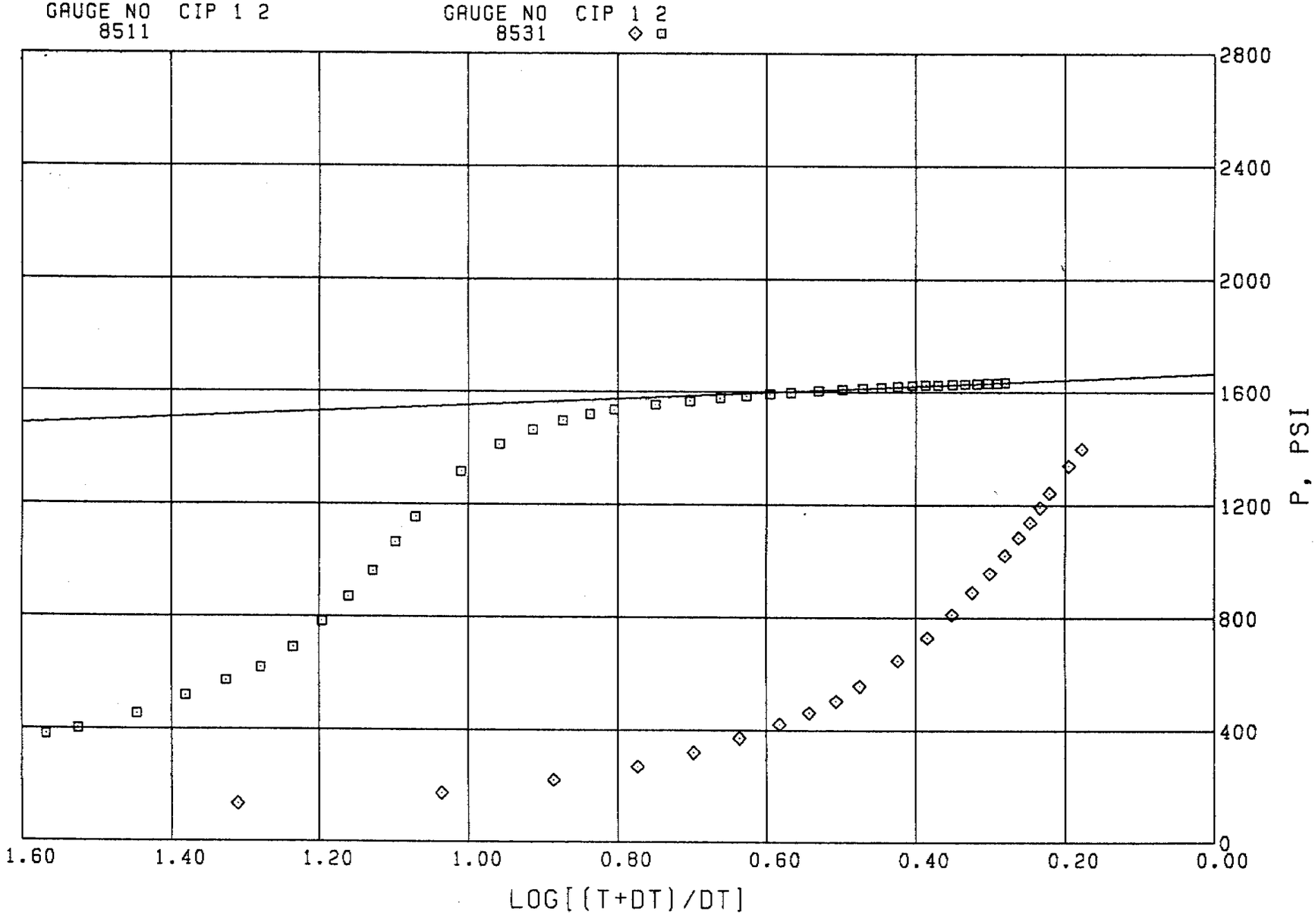

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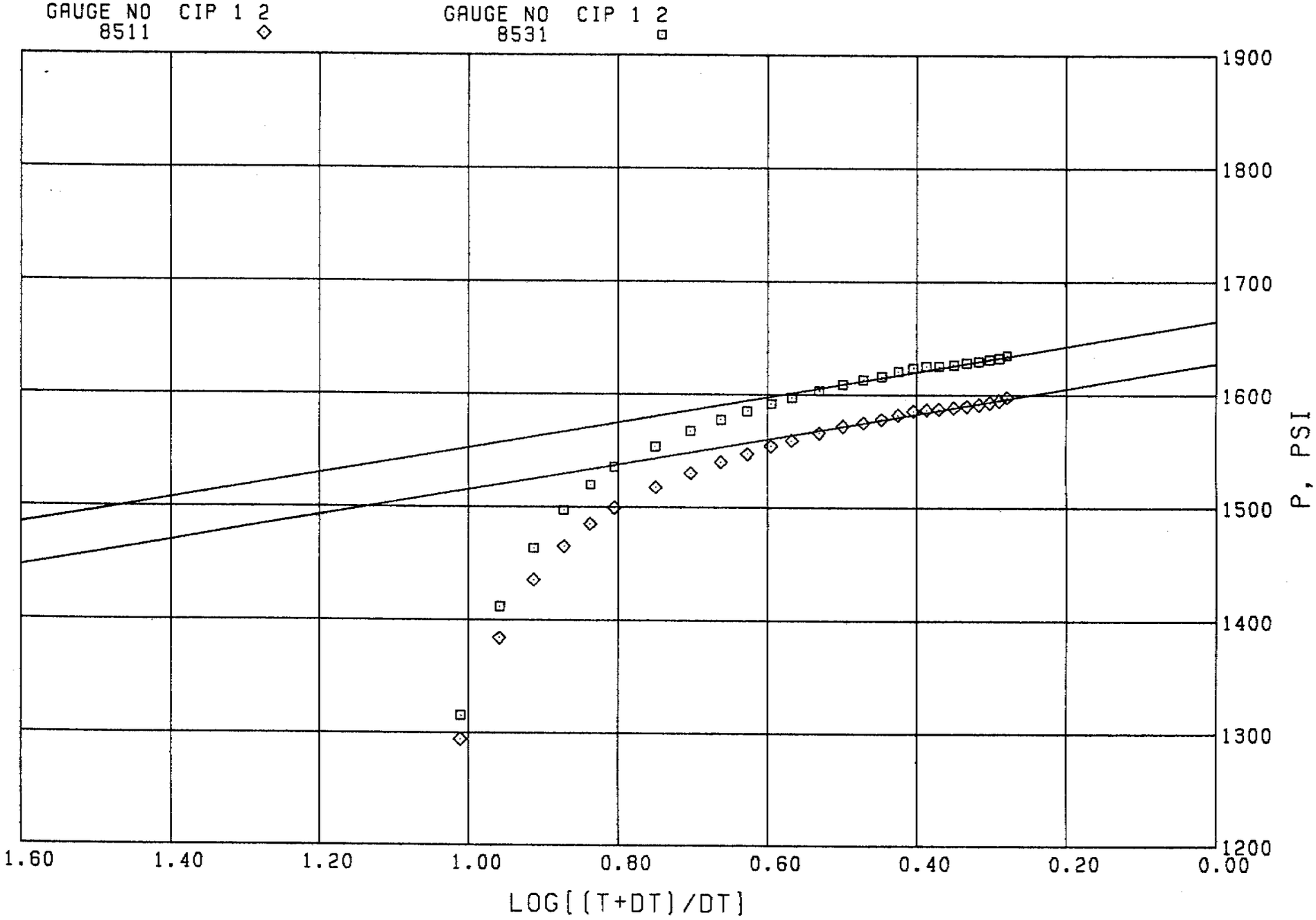


DRILL STEM TEST REPORT

OPERATOR: MOONIE OIL NL — DATE: 22-3-86

WELL NAME: EAST MEREENIE — NO. 28 A P — BASIN: AMADEUS

FIELD: MEREENIE — STRUCTURE:

TEST NO: 2 — FORMATION: PACOOTA P3 — SAND NO: P3-120/250

ELEVATIONS — GL: 2455 FT — KB: 2475 FT — PACKER AT: 4702.88 FT

INTERVAL: 4706 TO 4910 FT — TEST TYPE: DUAL PACKER DST

TEST STATISTICS

COMPANY: HALLIBURTON — OPERATOR: NORM COWLEY

TOOL: HYDROSPRING — CHOKE SIZE — TOP: .5 INS — BOTTOM: .75 INS

ANCHOR LENGTH: 37.06 FT — OD: 5 INS

PERFORATED: 4872.94 TO 4910 FT — LENGTH: 37.06 FT

PRESSURE RECORDER:

	TYPE	POSITION	DEPTH	CLOCK
1.	BOURDON TUBE	TOP	4680.69	24 HR
2.	BOURDON TUBE	BOTTOM	4908 FT	24 HR

CAPACITIES

HOLE SIZE: 7.625 INS — INTERVAL: 4706 TO 4910 FT

RAT HOLE: 7.625 INS — INTERVAL: 4702.88 TO 4910 FT

DRILL PIPE: .014229 BLS/FT — COLLARS: .0049 BLS/FT

TIME RECORD

ACTUAL		ELAPSED TIMES	
START CLOCK:	0912 HRS	START TO SEPERATOR:	1717 HRS
START IN HOLE:	0939 HRS	STOP SEPERATOR:	1830 HRS
TOOL OPENED:	1428 HRS	IF:	20 MINS
TOOL SHUT:	1448 HRS	ISI:	40 MINS
TOOL OPENED:	1528 HRS	FF:	178 MINS
TOOL SHUT:	1830 HRS	FSI:	404 MINS
PACK PULLED:	0114 HRS	TOTAL FLOW:	198 MINS
OUT OF HOLE:	0806 HRS	SEPERATOR FLOW:	73 MINS

PRESSURE RECORD

CHART: BOTTOM — CLOCK: 24 HR

IHP:	2206.7	PSI
IFP:	382	PSI
ISIP:	1771.8	PSI
FFP:	474.7	PSI
FSIP:	1766.2	PSI
FHP:	2184.4	PSI
WHFP:	80	PSI

RECOVERY

GTS: 8 MIN AT 237000 CU FT/D

OTS: 96 MIN AT 418 BLS/D (US)

WTS: MIN AT BLS/D (US)

GOR: 567 CU FT/BL

ORIFICE SIZE: .5 INS

FLOW PROVER PRESSURE: 40 PSI

SG OF GAS: .987 GM/CC

SG OF OIL: 47.8 API AT 60°F

WATER SALINITY: PPM

MAXIMUM TEMP: 150 °F

NATURE OF BLOW: INITIAL FLOW, IMMEDIATE WEAK BLOW INCREASING TO STRONG AFTER 5 MINS. GTS AFTER 8 MINS. MANIFOLD OPEN WITH CONSTANT STRONG BLOW, MAXIMUM 4 PSI PRESSURE AFTER 16 MINS. FINAL FLOW; IMMEDIATE STRONG BLOW, GAS AT SURFACE DECREASING TO VERY WEAK AFTER 28 MINS. TOTAL FLOW (OPSI). MUD TO SURFACE 89 MINS (3 PSI). OTS 96 MINS. (100 PSI) MANIFOLD PRESSURE CONSTANT 90 PSI FROM 121 MINS TO 162 MINS, 80 PSI FROM 162 TO 198 MINS (TOTAL FLOW). CHART INDICATES GOOD TEST WITH GOOD PERMEABILITY.

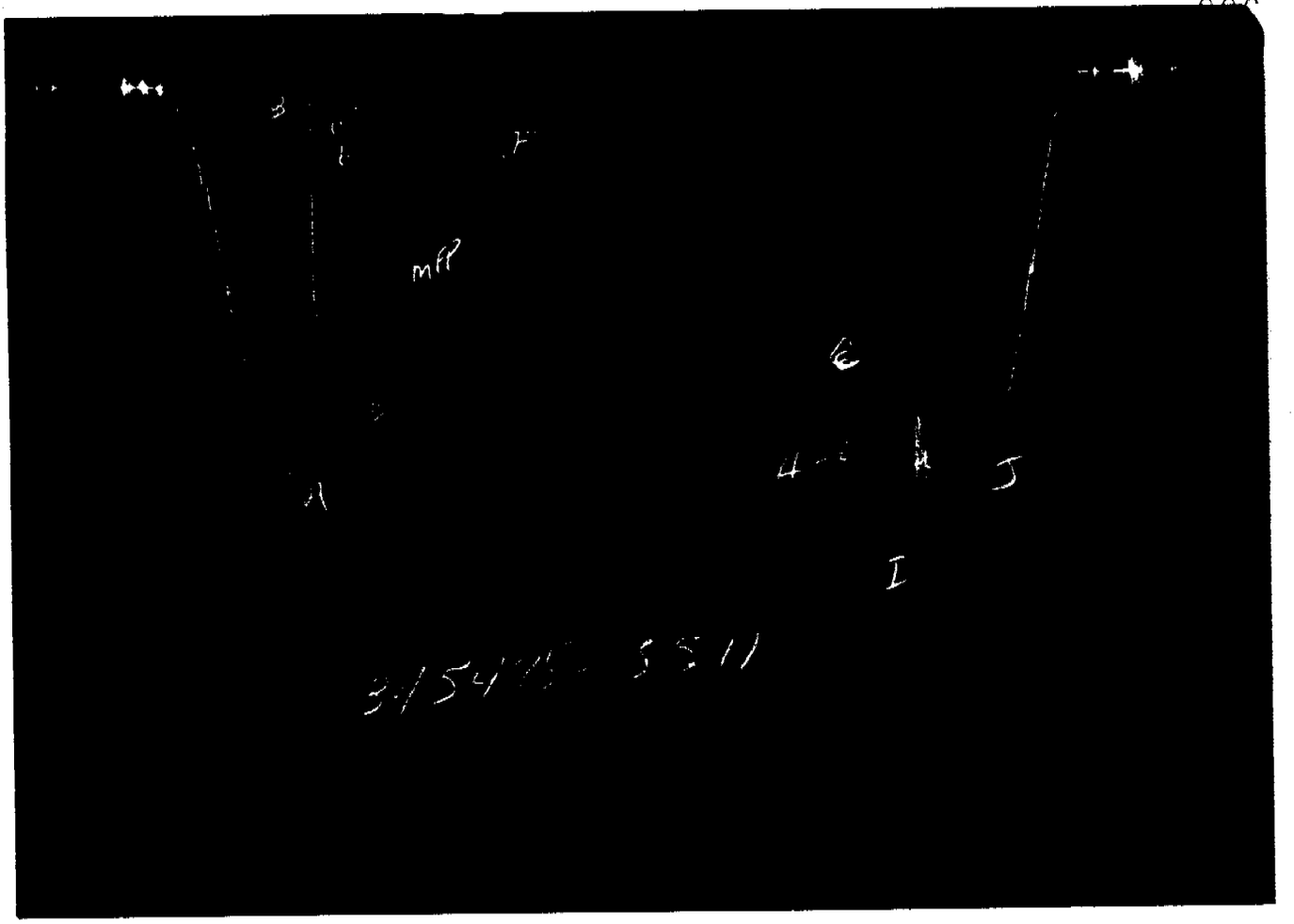
EAST MEREENIE	28	2	4702.9 - 4910.0	MOONIE OIL COMPANY LTD.
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME

LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE
SEE REMARKS	AMADEUS BASIN	NO. TERRITORY	AUSTRALIA IC

HALLIBURTON
SERVICES

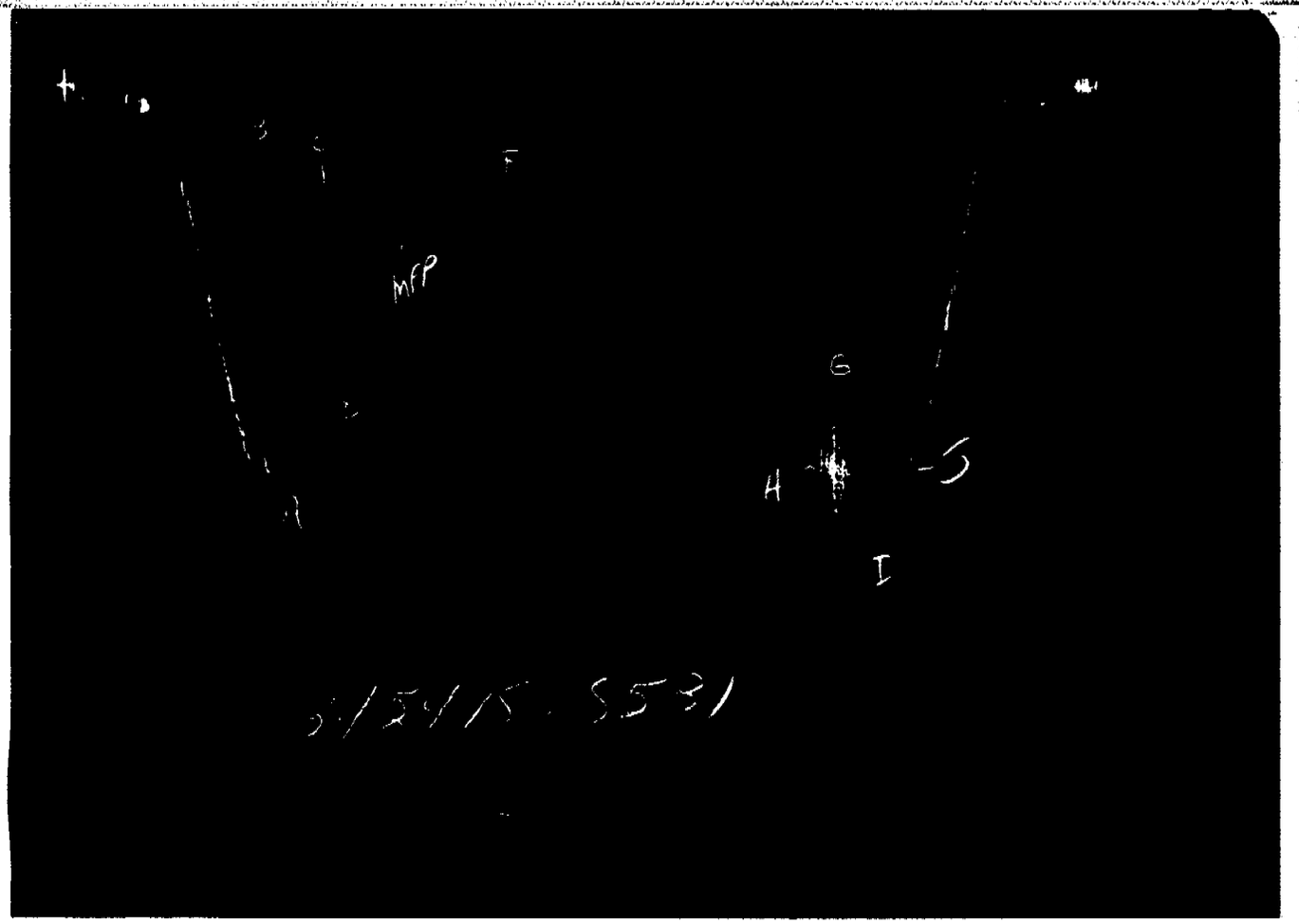
TICKET NO. 34547800
02-APR-86
ALICE SPRINGS

FORMATION TESTING SERVICE REPORT



GAUGE NO: 8511 DEPTH: 4680.0 BLANKED OFF: NO HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2110	2091.2			
B	INITIAL FIRST FLOW	31	21.8	20.0	18.9	F
C	FINAL FIRST FLOW	305	303.9			
C	INITIAL FIRST CLOSED-IN	305	303.9	40.0	37.4	C
D	FINAL FIRST CLOSED-IN	1679	1675.3			
E	INITIAL SECOND FLOW	407	385.3	182.0	183.8	F
F	FINAL SECOND FLOW	413	407.0			
F	INITIAL SECOND CLOSED-IN	413	407.0	404.0	405.9	C
G	FINAL SECOND CLOSED-IN	1674	1676.6			
H	HYDROSTATIC	2076	2077.4			
I	REVERSING		2614.4			
J	FINAL HYDROSTATIC		2102.9			



GAUGE NO: 8531 DEPTH: 4907.0 BLANKED OFF: YES HOUR OF CLOCK: 24

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC	2206	2204.9			
B	INITIAL FIRST FLOW	182	123.3	20.0	18.9	F
C	FINAL FIRST FLOW	382	383.8			
C	INITIAL FIRST CLOSED-IN	382	383.8	40.0	37.4	C
D	FINAL FIRST CLOSED-IN	1771	1768.0			
E	INITIAL SECOND FLOW	488	446.6	182.0	183.8	F
F	FINAL SECOND FLOW	474	472.8			
F	INITIAL SECOND CLOSED-IN	474	472.8	404.0	405.9	C
G	FINAL SECOND CLOSED-IN	1766	1763.7			
H	HYDROSTATIC	2184	2181.3			
I	REVERSING		2727.6			
J	FINAL HYDROSTATIC		2231.6			

EQUIPMENT & HOLE DATA

FORMATION TESTED: PACOOTA P3-120/250
NET PAY (ft):
GROSS TESTED FOOTAGE: 207.1
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.625
ELEVATION (ft): 2475.0
TOTAL DEPTH (ft): 4910.0
PACKER DEPTH(S) (ft): 4695, 4703
FINAL SURFACE CHOKE (in): 0.50000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 8.30
MUD VISCOSITY (sec): 45
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 150 @ 4908.0 ft

TICKET NUMBER: 34547800

DATE: 3-22-86 TEST NO: 2

TYPE DST: OPEN HOLE

HALLIBURTON CAMP: ALICE SPRINGS

TESTER: N. COWLEY

WITNESS: ROB YOUNG

DRILLING CONTRACTOR: MEREENIE RIG #1

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY		CHLORIDES
	@ °F		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): 57.8 @ 60°F
GAS/OIL RATIO (cu.ft. per bbl): 567
GAS GRAVITY: 0.987

CUSHION DATA

TYPE	AMOUNT	WEIGHT

RECOVERED:

FULL STRING OF OIL
NOTE: WELL PRODUCED AT A RATE OF 418 BARRELS OF OIL PER DAY WITH GOR OF 567 CUBIC FEET PER BARREL FROM FLOW PROVER.

MEASURED FROM TESTER VALVE

REMARKS:

LEGAL LOCATION: LAT. 24 DEG., 01', 33"S; LONG. 131 DEG., 36', 58"E.

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE					TICKET NO: 34547800
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
3-22-86					
0930					MADE UP TOOL
1111					RAN IN HOLE
1418					HEAD UP
1424					SET PACKERS WITH 30000#
1428	.50				OPENED TOOL WITH WEAK BLOW
1430					MODERATE BLOW
1432					MODERATE TO STRONG BLOW
1433		1			STRONG BLOW
1436		2			GAS TO SURFACE
1440		1			MODERATE BLOW
1443		2			STRONG BLOW
1444		4			VERY STRONG BLOW
1445		4			
1446		3			
1447		3			STRONG BLOW
1448		2			CLOSED TOOL
1528	.50	1			OPENED TOOL WITH STRONG BLOW
1529		2			
1531		1			MODERATE BLOW
1533		1			MODERATE TO WEAK BLOW
1534					WEAK BLOW
1536					VERY WEAK BLOW
1544					EXTREMELY WEAK BLOW
1637		3			RAT HOLE MUD TO SURFACE
1639		10			
1641		32			
1644		70			OIL TO SURFACE
1645		90			
1647		100			
1649		115			
1652		118			
1653		120			
1655		115			
1700		105			
1709		90			
1717		90			CHANGED LINES AND WENT THROUGH

TYPE & SIZE MEASURING DEVICE: 6" CERAMIC SURFACE CHOKE					TICKET NO: 34547800
TIME	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
					SEPARATOR
1730		90			
1750		90			
1800		85			
1810		80			
1830		80			CLOSED TOOL
3-23-86					
0114					OPENED BYPASS
0130					DROPPED BAR TO REVERSE
					CIRCULATE
0430					PULLED OUT OF HOLE
0700					TOOL AT FLOOR
0814					TOOL LAID DOWN - JOB COMPLETED

TICKET NO: 34547800		GAUGE NO: 8511
CLOCK NO: 29491 HOUR: 24	HALLIBURTON SERVICES	DEPTH: 4680.0

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	21.8			
	2	2.0	63.8	42.0		
	3	4.0	145.0	81.2		
	4	6.0	229.7	84.7		
	5	8.0	267.4	37.6		
	6	10.0	247.2	-20.1		
	7	12.0	252.6	5.4		
	8	14.0	261.3	8.7		
	9	16.0	273.2	11.8		
	10	18.0	296.1	22.9		
C	11	18.9	303.9	7.9		
		FIRST CLOSED-IN				
C	1	0.0	303.9			
	2	1.0	437.9	133.9	1.0	1.293
	3	2.0	600.9	297.0	1.8	1.014
	4	3.0	865.1	561.2	2.6	0.862
	5	4.0	1311.4	1007.4	3.3	0.756
	6	5.0	1545.1	1241.2	4.0	0.679
	7	6.0	1592.8	1288.8	4.6	0.617
	8	7.0	1610.0	1306.0	5.1	0.569
	9	8.0	1620.1	1316.1	5.6	0.528
	10	9.0	1629.4	1325.4	6.1	0.491
	11	10.0	1636.7	1332.8	6.5	0.461
	12	12.0	1645.9	1342.0	7.3	0.410
	13	14.0	1651.6	1347.6	8.1	0.370
	14	16.0	1656.8	1352.9	8.7	0.338
	15	18.0	1660.0	1356.0	9.2	0.312
	16	20.0	1663.5	1359.6	9.7	0.289
	17	22.0	1666.7	1362.7	10.2	0.269
	18	24.0	1668.2	1364.3	10.6	0.252
	19	26.0	1669.6	1365.6	10.9	0.237
	20	28.0	1670.7	1366.8	11.3	0.224
	21	30.0	1671.8	1367.8	11.6	0.212
	22	35.0	1674.3	1370.3	12.3	0.187
D	23	37.4	1675.3	1371.4	12.6	0.177
		SECOND FLOW				
E	1	0.0	385.3			
	2	10.0	410.4	25.1		
	3	20.0	484.9	74.5		
	4	30.0	555.5	70.7		
	5	40.0	624.7	69.2		
	6	50.0	683.7	58.9		
	7	60.0	737.6	53.9		
	8	70.0	793.6	55.9		
[1]	9	77.1	816.1	22.5		

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
		SECOND FLOW - CONTINUED				
	10	80.0	804.3	-11.7		
	11	90.0	715.8	-88.6		
	12	100.0	635.0	-80.8		
	13	110.0	576.4	-58.6		
	14	120.0	534.2	-42.2		
	15	130.0	504.7	-29.5		
	16	140.0	475.8	-28.9		
	17	150.0	453.3	-22.5		
	18	160.0	436.3	-17.0		
	19	170.0	422.5	-13.8		
	20	180.0	412.1	-10.4		
F	21	183.8	407.0	-5.1		
		SECOND CLOSED-IN				
F	1	0.0	407.0			
	2	1.0	563.7	156.7	1.0	2.308
	3	2.0	700.8	293.8	2.0	2.016
	4	3.0	874.2	467.2	3.0	1.835
	5	4.0	1333.7	926.7	3.9	1.712
	6	5.0	1411.4	1004.4	4.9	1.615
	7	6.0	1481.6	1074.6	5.8	1.543
	8	7.0	1525.6	1118.6	6.7	1.479
	9	8.0	1550.1	1143.2	7.7	1.420
	10	9.1	1565.4	1158.4	8.7	1.368
	11	10.0	1574.4	1167.4	9.5	1.328
	12	12.0	1586.1	1179.1	11.3	1.254
	13	14.0	1595.3	1188.3	13.1	1.189
	14	16.0	1601.0	1194.1	14.9	1.135
	15	18.0	1606.4	1199.5	16.5	1.088
	16	20.0	1612.5	1205.5	18.2	1.047
	17	22.0	1617.1	1210.1	19.9	1.008
	18	24.0	1620.2	1213.2	21.5	0.975
	19	26.0	1621.5	1214.5	23.0	0.945
	20	28.0	1624.0	1217.0	24.6	0.916
	21	30.0	1626.1	1219.1	26.1	0.890
	22	35.0	1629.4	1222.4	29.8	0.832
	23	40.0	1632.0	1225.0	33.4	0.783
	24	45.0	1634.6	1227.7	36.8	0.740
	25	50.0	1636.9	1229.9	40.1	0.704
	26	55.0	1639.8	1232.8	43.3	0.671
	27	60.0	1641.1	1234.1	46.3	0.641
	28	70.0	1644.1	1237.1	52.0	0.591
	29	80.0	1647.8	1240.8	57.4	0.548
	30	90.0	1650.0	1243.0	62.3	0.512
	31	100.0	1652.0	1245.0	67.0	0.481
	32	110.0	1654.6	1247.6	71.3	0.454
	33	120.0	1657.0	1250.0	75.4	0.430
	34	135.0	1659.2	1252.2	81.0	0.398
	35	150.0	1660.9	1253.9	86.2	0.371
	36	165.0	1663.5	1256.5	91.0	0.348
	37	180.0	1665.1	1258.1	95.4	0.328

LEGEND:
[1] MAXIMUM FLOW PRESSURE

REMARKS:

TICKET NO: 34547800	GAUGE NO: 8511
CLOCK NO: 29491 HOUR: 24	DEPTH: 4680.0

HALLIBURTON SERVICES

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
38	195.0	1665.7	1258.8	99.4	0.309
39	210.0	1666.9	1260.0	103.1	0.293
40	225.0	1668.1	1261.1	106.6	0.279
41	240.0	1669.2	1262.2	109.9	0.266
42	255.0	1670.3	1263.4	112.9	0.254
43	270.0	1670.5	1263.5	115.8	0.243
44	285.0	1671.4	1264.4	118.4	0.233
45	300.0	1672.0	1265.1	121.0	0.224
46	315.0	1673.0	1266.0	123.3	0.216
47	330.0	1673.5	1266.5	125.6	0.208
48	345.0	1673.9	1266.9	127.7	0.201
49	360.0	1674.7	1267.7	129.7	0.194
50	375.0	1675.2	1268.2	131.6	0.188
51	390.0	1675.3	1268.4	133.4	0.182
G 52	405.9	1676.6	1269.7	135.2	0.176

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

LEGEND:
[1] MAXIMUM FLOW PRESSURE

REMARKS:

TICKET NO: 34547800

CLOCK NO: 29475 HOUR: 24

HALLIBURTON SERVICES

GAUGE NO: 8531

DEPTH: 4907.0

FIRST FLOW

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
B	1	0.0	123.3			
	2	2.0	232.0	108.7		
	3	4.0	317.7	85.7		
	4	6.0	366.9	49.2		
	5	8.0	338.3	-28.5		
	6	10.0	322.1	-16.3		
	7	12.0	332.4	10.4		
	8	14.0	338.6	6.2		
	9	16.0	352.2	13.6		
	10	18.0	373.9	21.6		
C	11	18.9	383.8	10.0		

FIRST CLOSED-IN

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
C	1	0.0	383.8			
	2	1.0	503.6	119.8	1.0	1.287
	3	2.0	638.4	254.6	1.8	1.020
	4	3.0	832.5	448.6	2.6	0.860
	5	4.0	1264.9	881.0	3.3	0.753
	6	5.0	1608.0	1224.2	3.9	0.680
	7	6.0	1673.0	1289.1	4.6	0.617
	8	7.0	1693.9	1310.1	5.1	0.570
	9	8.0	1710.8	1327.0	5.6	0.526
	10	9.0	1717.3	1333.5	6.1	0.492
	11	10.0	1725.4	1341.5	6.5	0.461
	12	12.0	1736.3	1352.5	7.3	0.411
	13	14.0	1742.7	1358.8	8.0	0.372
	14	16.0	1748.3	1364.5	8.7	0.338
	15	18.0	1752.7	1368.8	9.2	0.312
	16	20.0	1755.4	1371.5	9.7	0.289
	17	22.0	1757.7	1373.9	10.2	0.269
	18	24.0	1760.0	1376.2	10.6	0.252
	19	26.0	1761.5	1377.7	10.9	0.237
	20	28.0	1763.5	1379.7	11.3	0.224
	21	30.0	1764.9	1381.1	11.6	0.212
	22	35.0	1768.0	1384.2	12.3	0.187
D	23	37.4	1768.0	1384.2	12.6	0.177

SECOND FLOW

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
E	1	0.0	446.6			
	2	10.0	489.2	42.6		
	3	20.0	564.1	74.9		
	4	30.0	633.7	69.6		
	5	40.0	697.1	63.4		
	6	50.0	753.8	56.7		
	7	60.0	811.0	57.2		
	8	70.0	864.8	53.8		
☐1	9	77.1	891.9	27.2		

SECOND FLOW - CONTINUED

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
	10	80.0	882.3	-9.6		
	11	90.0	792.9	-89.4		
	12	100.0	703.6	-89.3		
	13	110.0	642.1	-61.6		
	14	120.0	605.8	-36.2		
	15	130.0	576.9	-29.0		
	16	140.0	550.1	-26.7		
	17	150.0	523.8	-26.3		
	18	160.0	505.0	-18.8		
	19	170.0	489.0	-16.0		
	20	180.0	476.0	-13.1		
F	21	183.8	472.8	-3.2		

SECOND CLOSED-IN

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t+\Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
F	1	0.0	472.8			
	2	1.0	595.3	122.5	1.0	2.297
	3	2.0	719.4	246.6	1.9	2.018
	4	3.0	867.0	394.2	2.9	1.842
	5	4.0	1156.5	683.8	3.9	1.711
	6	5.0	1417.5	944.7	4.8	1.622
	7	6.0	1515.6	1042.9	5.8	1.545
	8	7.0	1587.7	1115.0	6.8	1.474
	9	8.0	1622.7	1149.9	7.7	1.422
	10	9.0	1641.1	1168.4	8.7	1.370
	11	10.0	1651.8	1179.1	9.5	1.329
	12	12.0	1668.9	1196.1	11.3	1.253
	13	14.0	1680.1	1207.4	13.1	1.190
	14	16.0	1686.1	1213.3	14.8	1.136
	15	18.0	1691.8	1219.1	16.5	1.089
	16	20.0	1696.8	1224.0	18.2	1.046
	17	22.0	1699.7	1227.0	19.9	1.009
	18	24.0	1701.7	1228.9	21.5	0.975
	19	26.0	1704.2	1231.5	23.0	0.945
	20	28.0	1706.2	1233.4	24.6	0.916
	21	30.1	1708.3	1235.6	26.2	0.889
	22	35.0	1712.3	1239.5	29.8	0.832
	23	40.0	1715.8	1243.0	33.4	0.783
	24	45.0	1718.2	1245.4	36.8	0.741
	25	50.0	1720.4	1247.7	40.1	0.704
	26	55.0	1722.0	1249.2	43.3	0.671
	27	60.0	1724.1	1251.3	46.3	0.641
	28	70.1	1728.3	1255.6	52.1	0.590
	29	80.0	1731.5	1258.8	57.4	0.548
	30	90.0	1734.5	1261.8	62.3	0.512
	31	100.0	1736.5	1263.7	67.0	0.481
	32	110.0	1740.0	1267.2	71.3	0.454
	33	120.0	1742.0	1269.2	75.4	0.430
	34	135.0	1743.9	1271.2	81.0	0.398
	35	150.0	1745.5	1272.7	86.2	0.371
	36	165.0	1747.6	1274.9	90.9	0.348
	37	180.0	1749.4	1276.7	95.3	0.328

LEGEND:
☐1 MAXIMUM FLOW PRESSURE

REMARKS:

TICKET NO: 34547800

CLOCK NO: 29475 HOUR: 24

HALLIBURTON SERVICES

GAUGE NO: 8531

DEPTH: 4907.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t+\Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
38	195.0	1750.8	1278.1	99.4	0.310
39	210.0	1752.1	1279.4	103.2	0.293
40	225.0	1753.1	1280.3	106.6	0.279
41	240.0	1753.7	1280.9	109.9	0.266
42	254.9	1754.9	1282.2	112.9	0.254
43	270.0	1755.8	1283.0	115.8	0.243
44	285.0	1757.2	1284.4	118.5	0.233
45	300.0	1757.9	1285.1	121.0	0.224
46	315.0	1758.7	1286.0	123.3	0.216
47	330.0	1759.4	1286.7	125.6	0.208
48	345.0	1760.1	1287.4	127.7	0.201
49	360.0	1760.8	1288.1	129.7	0.194
50	375.0	1761.4	1288.7	131.6	0.188
51	390.0	1762.0	1289.2	133.4	0.182
G 52	405.9	1763.7	1290.9	135.2	0.176

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

LEGEND:
[1] MAXIMUM FLOW PRESSURE

REMARKS:

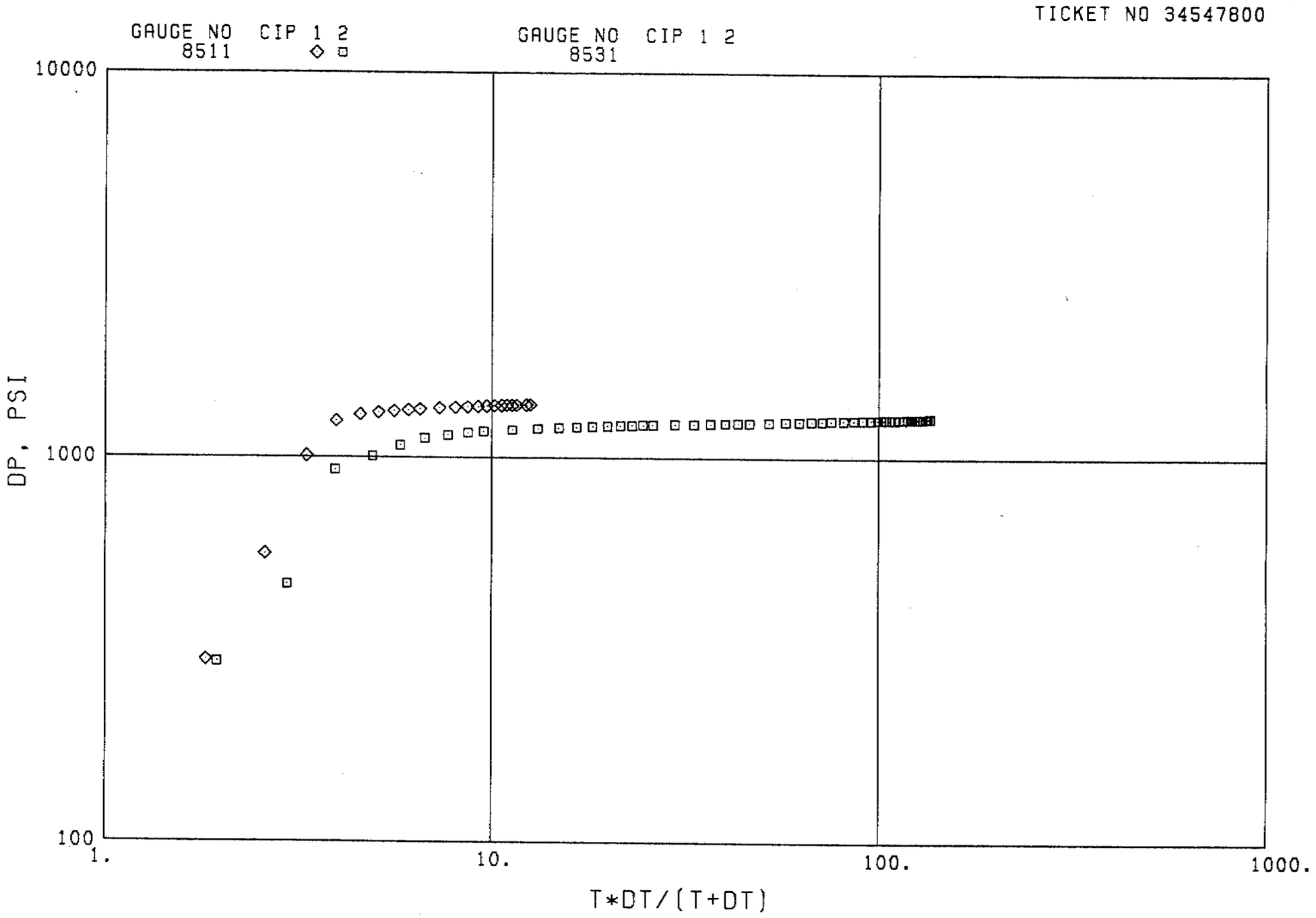
TICKET NO. 34547800

		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE.....	4.500	3.826	4070.1	
4	FLEX WEIGHT.....	4.500	2.764	182.3	
3	DRILL COLLARS.....	6.250	2.375	335.9	
9	STABILIZER.....	6.438	2.375	6.5	
3	DRILL COLLARS.....	6.250	2.375	29.6	
50	IMPACT REVERSING SUB.....	6.250	3.000	1.0	4624.4
3	DRILL COLLARS.....	6.250	2.375	31.2	
9	STABILIZER.....	6.438	2.313	6.6	
258	BAR CATCHER SUB	6.250	1.000	1.0	4664.0
12	DUAL CIP VALVE.....	5.000	0.870	4.9	
202	SAMPLE CHAMBER.....	5.000	2.250	4.1	
60	HYDROSPRING TESTER.....	5.000	0.750	5.3	4678.0
80	AP RUNNING CASE.....	5.000	2.250	4.1	4680.0
15	JAR.....	5.000	1.750	5.0	
16	VR SAFETY JOINT.....	5.000	1.000	2.8	
70	OPEN HOLE PACKER.....	6.750	1.530	5.8	4695.1
18	DISTRIBUTOR VALVE.....	5.000	1.680	2.0	
70	OPEN HOLE PACKER.....	6.750	1.530	5.8	4702.9
19	ANCHOR PIPE SAFETY JOINT.....	5.000	1.500	4.3	
5	CROSSOVER.....	6.250	2.200	1.0	
47	PUP JOINT.....	4.500	3.000	10.0	
3	DRILL COLLARS.....	6.250	2.375	152.5	
5	CROSSOVER.....	6.250	2.250	1.0	
20	FLUSH JOINT ANCHOR.....	5.000	2.370	33.0	
81	BLANKED-OFF RUNNING CASE.....	5.000		4.1	4907.0

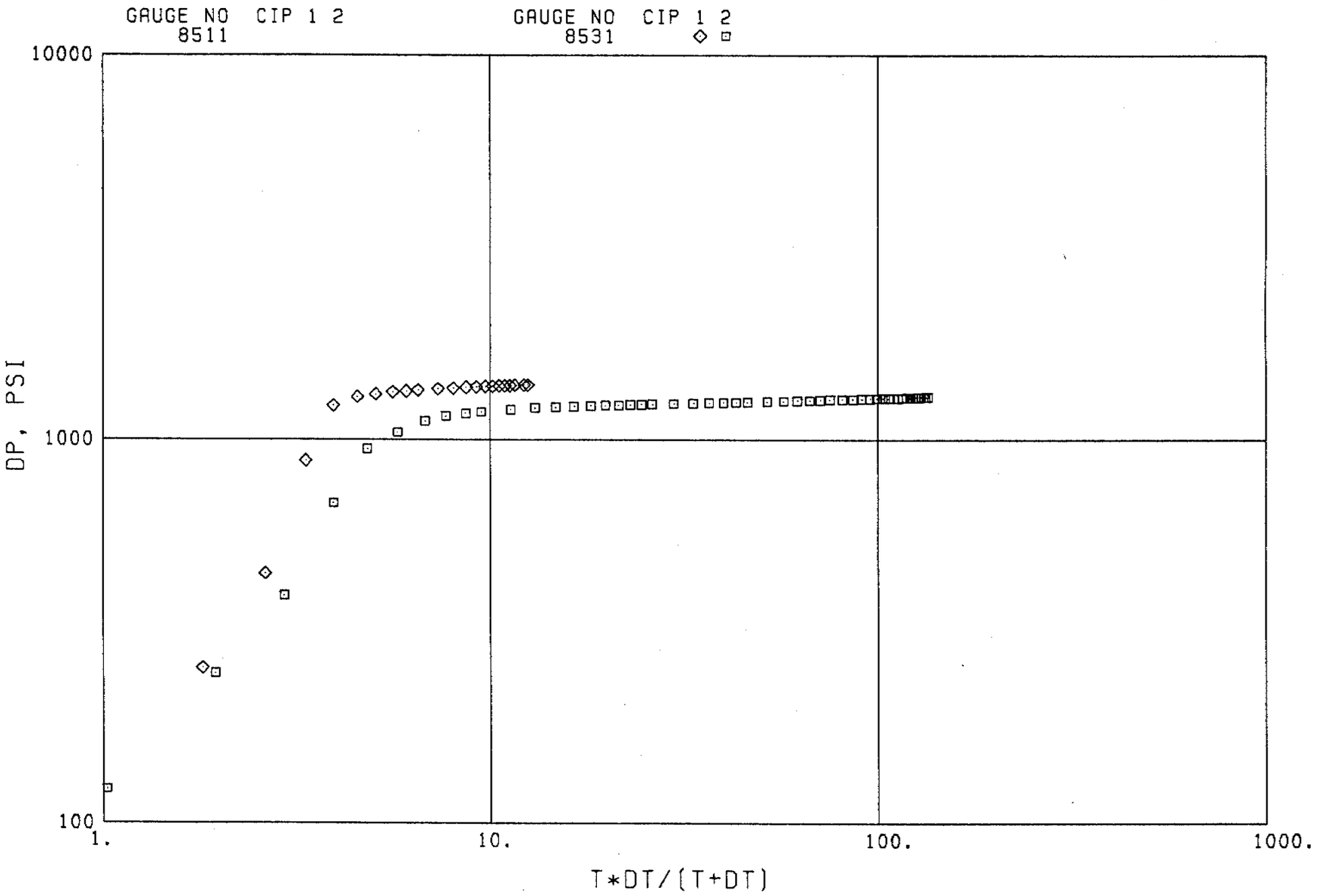
TOTAL DEPTH 4910.0

EQUIPMENT DATA

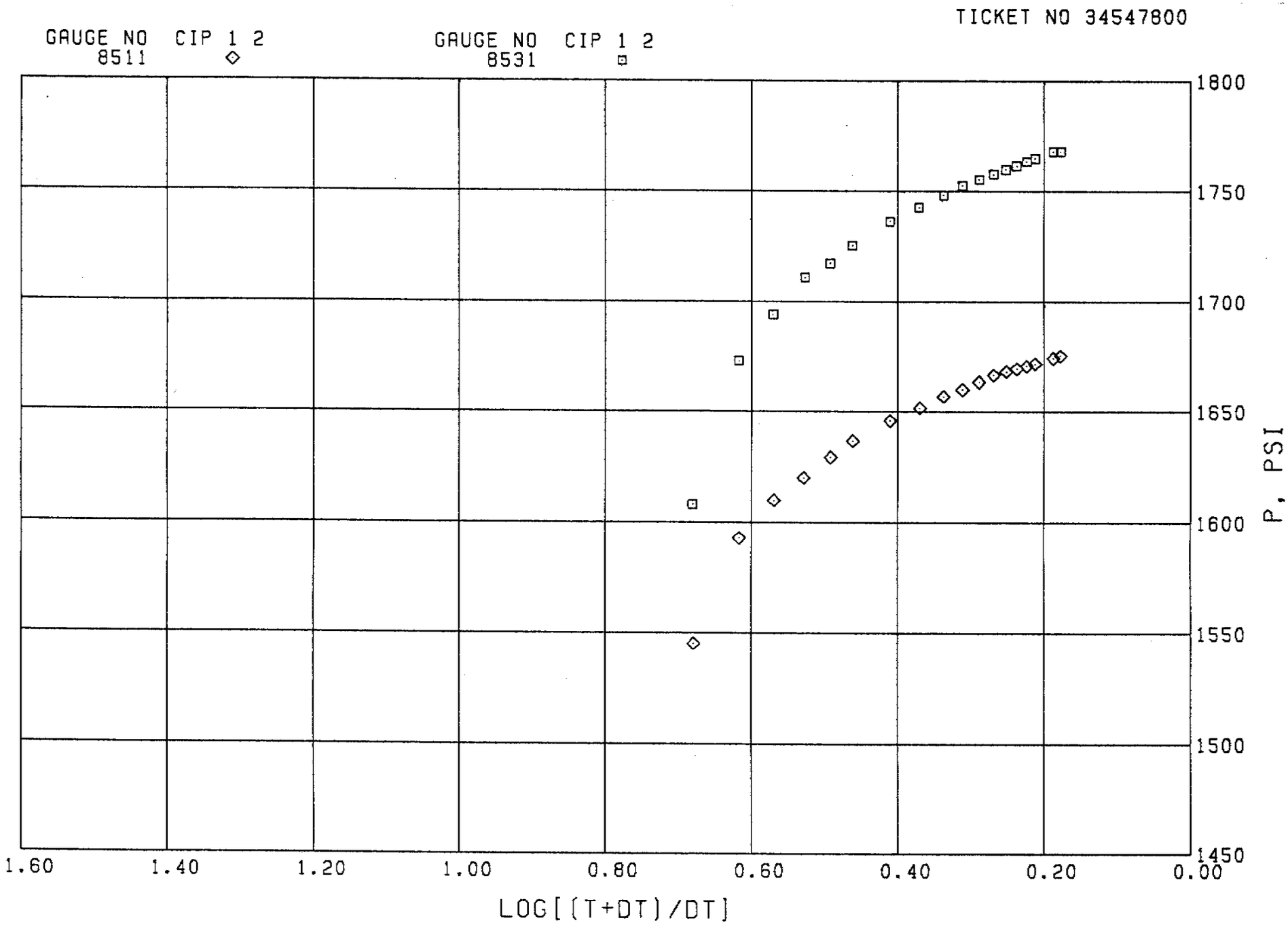
TICKET NO 34547800



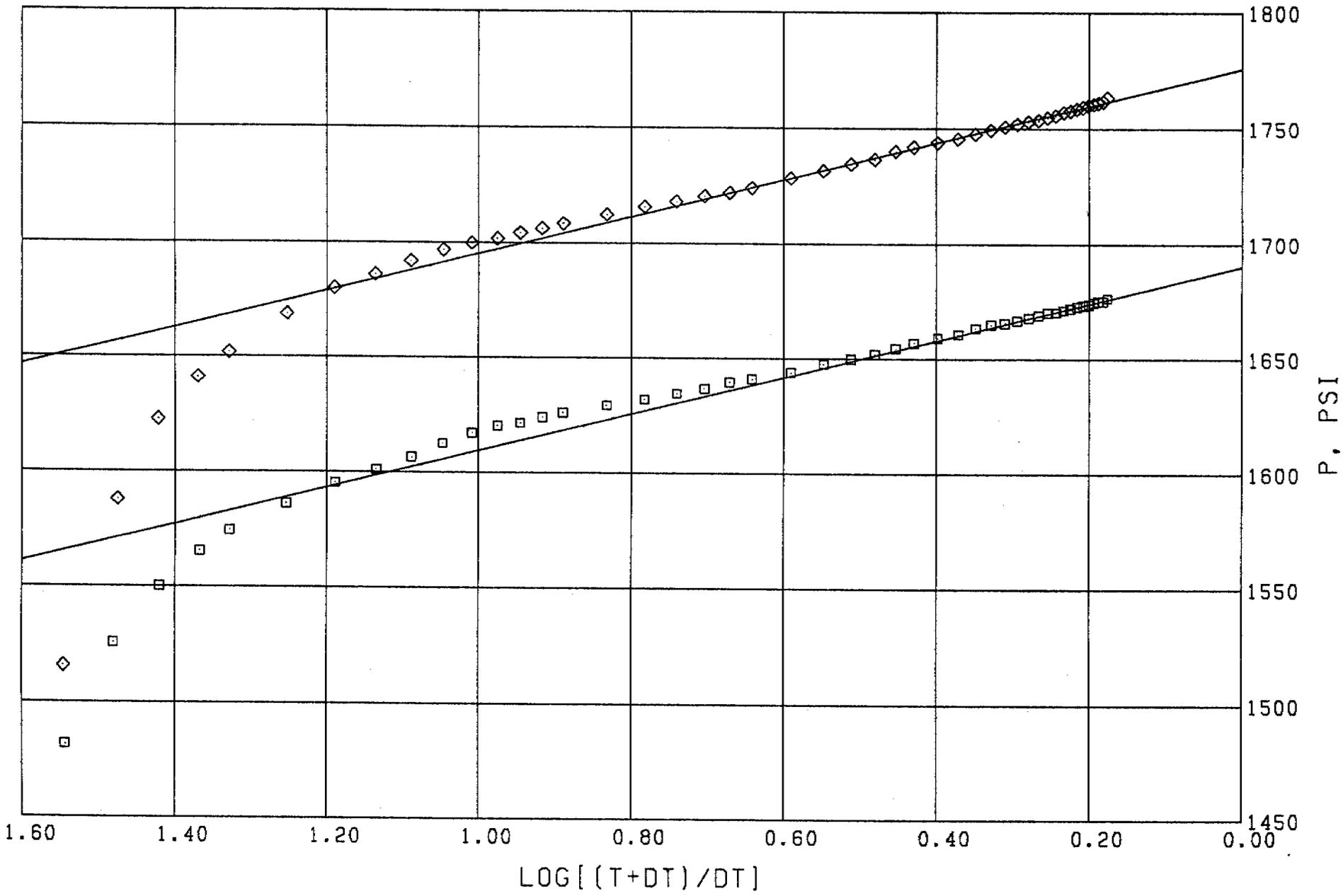
TICKET NO 34547800



TICKET NO 34547800



TICKET NO 34547800



TICKET NUMBER 34547800

SUMMARY OF RESERVOIR PARAMETERS

USING HORNER METHOD FOR LIQUID WELLS

OIL GRAVITY 57.8 °API@60°F — WATER SALINITY 0.0 % SALT

GAS GRAVITY 0.987 — FLUID GRADIENT 0.3239 psi/ft

GAS/OIL RATIO 567.0 SCF/STB — FLUID PROPERTIES AT 1776.1 psig

TEMPERATURE 150.0 °F — VISCOSITY 0.321 cp

NET PAY 0.0 ft — FMT VOL FACTOR 1.305 Rvol/Svol

POROSITY 10.0 % — SYSTEM COMPRESSIBILITY 13.38 $\times 10^{-6}$ vol/vol/psi

PIPE CAPACITY FACTORS _____ _____ _____ _____ bbl/ft

GAUGE NUMBER		8511	8531					
GAUGE DEPTH		4680.0	4907.0					
FLOW AND CIP PERIOD		2	2					UNITS
FINAL FLOW PRESSURE	P_f	407.0	472.8					psig
TOTAL FLOW TIME	t	202.7	202.7					min
EXTRAPOLATED PRESSURE	P*	1690.3	1776.1					psig
ONE CYCLE PRESSURE		1609.4	1695.1					psig
PRODUCTION RATE	Q	418.0	418.0					BPD
TRANSMISSIBILITY	kh/μ	1095.5	1095.5					$\frac{md-ft}{cp}$
FLOW CAPACITY	kh	351.515	351.515					md-ft
PERMEABILITY	k	1.69732	1.69732					md
SKIN FACTOR	S	12.6	12.9					
DAMAGE RATIO	DR	3.3	3.3					
POTENTIAL RATE	Q_1	1364.5	1386.0					BPD
RADIUS OF INVESTIGATION	r_t	117.0	117.0					ft

REMARKS: ANALYSIS WAS PERFORMED BY USING THE REPORTED PRODUCTION RATE OF 418 BBLS./DAY AND REPORTED GAS/OIL RATIO OF 567 CU. FT. PER BBL.

THE ENTIRE TESTED INTERVAL OF 207 FEET WAS USED AS FORMATION THICKNESS DUE TO THE LACK OF A REPORTED NET PAY.

THE PLOTS INDICATE THE POSSIBILTY OF A PERMEABILITY ANOMALY WITHIN THE TESTED INTERVAL.

EQUATIONS FOR DST LIQUID WELL ANALYSIS

Transmissibility	$\frac{kh}{\mu} = \frac{162.6\ QB}{m}$	$\frac{\text{md-ft}}{\text{cp}}$
Indicated Flow Capacity	$kh = \frac{kh}{\mu}\ \mu$	md-ft
Average Effective Permeability	$k = \frac{kh}{h}$	md
Skin Factor	$S = 1.151\left[\frac{P^* - P_f}{m} - \text{LOG}\left(\frac{k(t/60}{\phi\ \mu\ c_t r_w^2}\right) + 3.23\right]$	—
Damage Ratio	$DR = \frac{P^* - P_f}{P^* - P_f - 0.87\ mS}$	—
Theoretical Potential w / Damage Removed	$Q_1 = Q\ DR$	BPD
Approx. Radius of Investigation	$r_i = 0.032\sqrt{\frac{k(t/60)}{\phi\mu c_t}}$	ft

EQUATIONS FOR DST GAS WELL ANALYSIS

Indicated Flow Capacity	$kh = \frac{1637\ Q_g\ T}{m}$	md-ft
Average Effective Permeability	$k \quad \frac{kh}{h}$	md
Skin Factor	$S = 1.151\left[\frac{m(P^*) - m(P_f)}{m} \quad \text{LOG}\left(\frac{k(t/60)}{\phi\ \mu\ c_t r_w^2}\right) + 3.23\right]$	—
Damage Ratio	$DR = \frac{m(P^*) - m(P_f)}{m(P^*) - m(P_f) \cdot 0.87\ mS}$	—
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	$r_i = 0.032\sqrt{\frac{k(t/60)}{\phi\mu c_t}}$	ft