15-129-21137

32-31s-39w

AMOCO PRODUCTION COMPANY

LEASE : LOREN SULLIVAN

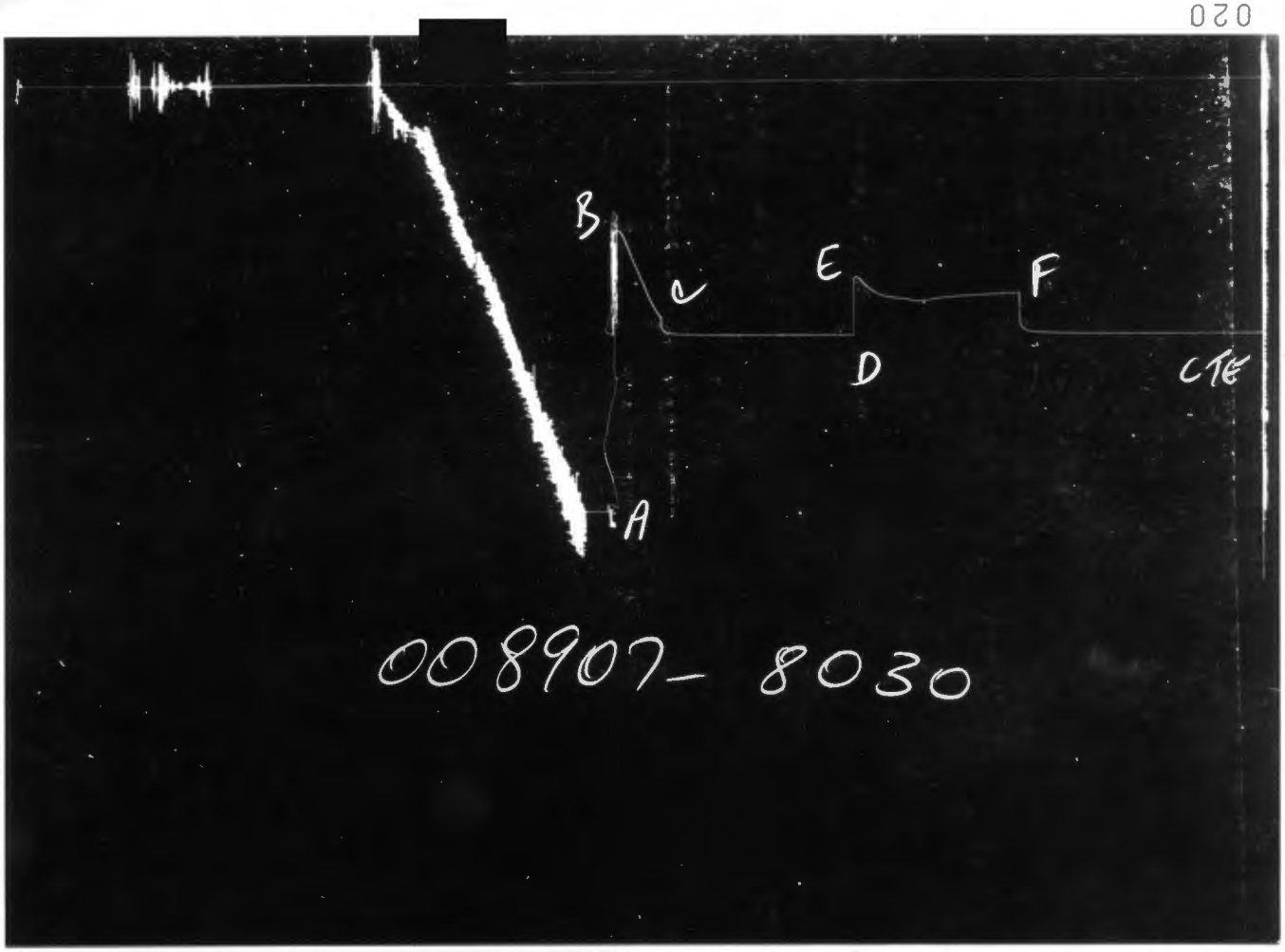
WELL NO.: 1

TEST NO.: 1

TICKET NO. 00890700
12-AUG-92
LIBERAL

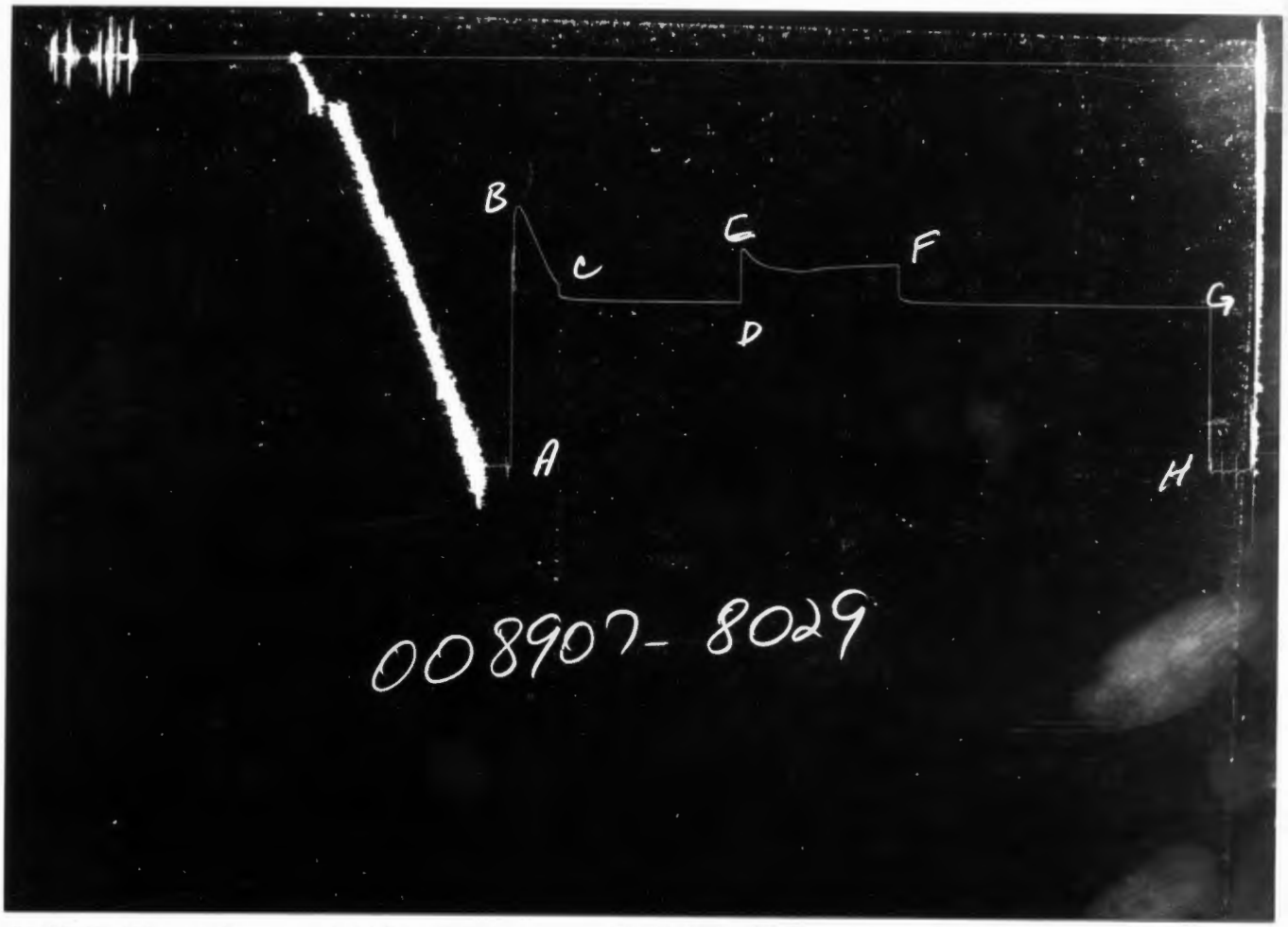
DST REPORT PRODUCED BY HRS
A DIVISION OF HALLIBURTON COMPANY

LOREN SULLIVAN	1	1	5494.5 - 5517.0	AMOCO PRODUCTION COMPANY	
LEASE NAME	WELL NO.	TEST NO.	TESTED INTERVAL	LEASE OWNER/COMPANY NAME	
LEGAL LOCATION SEC. - TWP. - RNG.	FIELD AREA	COUNTY	STATE		
32 - 31 S - 39 W	~~LOST SPRINGS~~ Kinsler-Coover	MORTON	KANSAS		



GAUGE NO: 8030 DEPTH: 5473.9 BLANKED OFF: NO HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2596.7			
B	INITIAL FIRST FLOW		930.0	26.0	26.0	F
C	FINAL FIRST FLOW		1430.0			
C	INITIAL FIRST CLOSED-IN		1430.0	106.0	105.2	C
D	FINAL FIRST CLOSED-IN		1539.2			
E	INITIAL SECOND FLOW		1263.2	90.0	90.6	F
F	FINAL SECOND FLOW		1289.0			
F	INITIAL SECOND CLOSED-IN		1289.0	180.0		C
G	FINAL SECOND CLOSED-IN					
H	FINAL HYDROSTATIC					



GAUGE NO: 8029 DEPTH: 5514.0 BLANKED OFF: YES HOUR OF CLOCK: 12

ID	DESCRIPTION	PRESSURE		TIME		TYPE
		REPORTED	CALCULATED	REPORTED	CALCULATED	
A	INITIAL HYDROSTATIC		2612.6			
B	INITIAL FIRST FLOW		1052.2	26.0	26.0	F
C	FINAL FIRST FLOW		1450.3			
C	INITIAL FIRST CLOSED-IN		1450.3	106.0	105.2	C
D	FINAL FIRST CLOSED-IN		1553.9			
E	INITIAL SECOND FLOW		1281.1	90.0	90.6	F
F	FINAL SECOND FLOW		1302.6			
F	INITIAL SECOND CLOSED-IN		1302.6	180.0	180.3	C
G	FINAL SECOND CLOSED-IN		1553.4			
H	FINAL HYDROSTATIC		2594.2			

EQUIPMENT & HOLE DATA

FORMATION TESTED: MORROW SAND
NET PAY (ft): 10.0
GROSS TESTED FOOTAGE: 22.4 PACKER TO T.D.
ALL DEPTHS MEASURED FROM: K.B.
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft): 3271.0
TOTAL DEPTH (ft): 5517.0
PACKER DEPTH(S) (ft): 5489, 5495
FINAL SURFACE CHOKE (in): 0.50000
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.10
MUD VISCOSITY (sec): 47
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 140 @ 5511.9 ft

TICKET NUMBER: 00890700

DATE: 08-07-92 TEST NO: 1

TYPE DST: OPEN HOLE

FIELD CAMP: LIBERAL

TESTER: L.D. GRANT

WITNESS: SAM CARMACK

DRILLING CONTRACTOR: CHEYENNE DRILLING COMPANY RIG #3

FLUID PROPERTIES FOR RECOVERED MUD & WATER

SOURCE	RESISTIVITY		CHLORIDES
PIT	2.300 @ 72 °F		189 ppm
	@ °F		ppm
	@ °F		ppm
	@ °F		ppm
	@ °F		ppm
	@ °F		ppm

SAMPLER DATA

Psig AT SURFACE: 940.0
cu.ft. OF GAS: 2.8585
cc OF OIL: 1100.0
cc OF WATER:
cc OF MUD:
TOTAL LIQUID cc: 1100.0

HYDROCARBON PROPERTIES

OIL GRAVITY (°API): 43.2 @ 60 °F
GAS/OIL RATIO (cu.ft. per bbl): 413
GAS GRAVITY:

CUSHION DATA

TYPE	AMOUNT	WEIGHT

RECOVERED:

5472.9 FT. OF GASSEY OIL

NOTE: GAS TO THE SURFACE IN 2 MINUTES, OIL TO THE SURFACE IN 18 MINUTES. OIL FLOW STABILIZED AT 260 PSI THRU A 1/2" CHOKE NIPPLE

MEASURED FROM TESTER VALVE

REMARKS:

TYPE & SIZE MEASURING DEVICE: _____					TICKET NO: 00890700
TIME .	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
08-06-92					
22:30					CALLED TO BE READY AT 02:30
08-07-92					
01:30					ON LOCATION; RIG PULLING OUT OF
					THE HOLE
02:35					PICKED UP TOOLS
02:55					MADE UP TOOLS
03:10					TOOLS MADE UP IN THE TABLE; RIG
					SERVICED UNIT
04:30					STARTED IN THE HOLE WITH TOOLS
06:47					ON BOTTOM; 84000# UP, 54000# DOWN
06:49	B.H.				TOOL OPENED WITH INSTANT BLOW
06:52	1/4	50			STARTED FLOW TO PIT THRU 1/4" CHOKE
					NIPPLE
06:54	1/4	90			
06:59	1/4	130			
07:04	1/4	155			
07:07	1/4				FLOW SUDDENLY STOPPED
07:10					SHUT VALVE ON TOP OF DRILL PIPE,
					BLED FLOW LINE AND CHICKSANS DOWN;
					CHOKE PLUGGED WITH FIBEROUS MATERIAL
07:15					CLOSED TOOL
07:30	1/2	300			STARTED BLEEDING PRESSURE FROM
					PIPE; OIL TO THE SURFACE; SHUT IN
					AND WAITED ON TANK
08:38	1/2	340			STARTED BLEEDING TO TANK
09:01	1/2	160			OPENED TOOL WITH GAS AND OIL TO
					THE TANK
09:16	1/2	190			
09:31	1/2	200			
09:46	1/2	240			
10:01	1/2	255			
10:16	1/2	260			
10:31	1/2	260			PRESSURE STABILIZED; CLOSED TOOL
10:40					BLED PIPE TO TANK
13:31					OPENED BYPASS; PULLED OFF BOTTOM
13:52					DROPPED BAR TO SHEAR PIN IN THE

TYPE & SIZE MEASURING DEVICE: ______________________ | TICKET NO: 00890700

TIME .	CHOKE SIZE	SURFACE PRESSURE PSI	GAS RATE MCF	LIQUID RATE BPD	REMARKS
					REVERSING SUB
13:58					STARTED REVERSING
14:15					FINISHED PUMPING OIL TO TANK;
					RIGGED DOWN FLOW LINE
14:30					STARTED OUT OF THE HOLE
16:45					TOOLS IN THE TABLE
17:15					TOOLS LAID DOWN
17:45					LOADED TOOLS; READ CHARTS
18:30					JOB COMPLETED
18:45					RELEASED FROM LOCATION

TICKET NO: 00890700	
CLOCK NO: 3462	HOUR: 12

GAUGE NO: 8030
DEPTH: 5473.9

REF		MINUTES	PRESSURE	ΔP	$\frac{tx\Delta t}{t+\Delta t}$	$\log\frac{t+\Delta t}{\Delta t}$
			FIRST FLOW			
B	1	0.0	930.0			
	2	0.5	946.5	16.5		
	3	1.0	923.8	-22.7		
	4	1.5	911.1	-12.7		
	5	2.0	905.6	-5.5		
	6	2.5	901.4	-4.1		
	7	3.0	899.9	-1.6		
	8	4.0	904.0	4.1		
	9	6.0	941.4	37.4		
	10	8.0	993.1	51.7		
	11	10.0	1049.9	56.8		
	12	12.0	1106.2	56.3		
	13	14.0	1157.5	51.4		
	14	16.0	1211.0	53.4		
	15	18.0	1265.5	54.5		
	16	20.0	1315.3	49.8		
	17	22.0	1360.1	44.8		
	18	24.0	1398.4	38.3		
C	19	26.0	1430.0	31.6		
			FIRST CLOSED-IN			
C	1	0.0	1430.0			
	2	0.5	1495.8	65.8	0.5	1.732
	3	1.0	1503.5	73.4	0.9	1.439
	4	1.5	1509.0	79.0	1.4	1.255
	5	2.0	1512.5	82.5	1.9	1.139
	6	2.5	1515.4	85.3	2.3	1.053
	7	3.0	1517.8	87.7	2.7	0.979
	8	3.5	1519.5	89.5	3.1	0.928
	9	4.0	1520.9	90.9	3.5	0.876
	10	4.5	1521.9	91.9	3.9	0.828
	11	5.0	1523.0	93.0	4.2	0.795
	12	6.0	1524.3	94.2	4.9	0.728
	13	7.0	1526.2	96.1	5.5	0.675
	14	8.0	1527.3	97.3	6.1	0.629
	15	9.0	1528.1	98.1	6.7	0.590
	16	10.0	1528.9	98.8	7.2	0.557
	17	12.0	1530.3	100.3	8.2	0.501
	18	14.0	1531.1	101.1	9.1	0.456
	19	16.0	1532.1	102.0	9.9	0.419
	20	18.0	1533.0	103.0	10.6	0.388
	21	20.0	1533.6	103.6	11.3	0.362
	22	22.0	1533.8	103.8	11.9	0.339
	23	24.0	1534.0	103.9	12.5	0.319
	24	26.0	1534.4	104.4	13.0	0.301
	25	28.0	1534.6	104.6	13.5	0.285
	26	30.0	1534.8	104.7	13.9	0.271
	27	35.0	1535.9	105.8	14.9	0.241
	28	40.0	1536.2	106.2	15.7	0.218

REF		MINUTES	PRESSURE	ΔP	$\frac{tx\Delta t}{t+\Delta t}$	$\log\frac{t+\Delta t}{\Delta t}$
			FIRST CLOSED-IN - CONTINUED			
	29	45.0	1536.7	106.6	16.5	0.198
	30	50.0	1536.8	106.8	17.1	0.182
	31	55.0	1537.1	107.1	17.6	0.168
	32	60.0	1537.5	107.4	18.1	0.156
	33	70.0	1537.6	107.6	18.9	0.137
	34	80.0	1537.8	107.7	19.6	0.122
	35	90.0	1538.6	108.5	20.2	0.110
	36	100.0	1538.9	108.9	20.6	0.100
D	37	105.2	1539.2	109.2	20.8	0.096
			SECOND FLOW			
E	1	0.0	1253.2			
	2	0.5	1197.0	-66.1		
	3	1.0	1192.1	-4.9		
	4	1.5	1190.4	-1.7		
	5	2.0	1190.0	-0.3		
	6	4.0	1209.1	19.1		
	7	6.0	1233.0	23.9		
	8	8.0	1253.5	20.5		
	9	10.0	1269.6	16.1		
	10	12.0	1282.3	12.7		
	11	14.0	1293.8	11.5		
	12	16.0	1302.2	8.4		
	13	18.0	1307.8	5.6		
	14	20.0	1311.8	4.0		
	15	25.0	1318.4	6.7		
	16	30.0	1326.7	8.3		
	17	35.0	1335.8	9.1		
	18	40.0	1332.4	-3.3		
	19	45.0	1321.3	-11.1		
	20	50.0	1315.6	-5.7		
	21	55.0	1311.1	-4.5		
	22	60.0	1307.0	-4.1		
	23	70.0	1299.8	-7.2		
	24	80.0	1295.0	-4.8		
F	25	90.6	1289.0	-6.0		
			SECOND CLOSED-IN			
F	1	0.0	1289.0			
	2	0.5	1473.8	184.8	0.5	2.365
	3	1.0	1487.5	198.5	1.0	2.060
	4	1.5	1497.2	208.2	1.5	1.892
	5	2.0	1503.1	214.1	1.9	1.778
	6	2.5	1507.4	218.4	2.4	1.679
	7	3.0	1510.9	221.9	3.0	1.596
	8	3.5	1514.2	225.2	3.4	1.531
	9	4.0	1516.8	227.8	3.9	1.480
	10	4.5	1518.7	229.7	4.3	1.429
	11	5.0	1520.4	231.4	4.8	1.383

LEGEND:
[1] CHART TIME EXPIRED

REMARKS:

TICKET NO: 00890700	GAUGE NO: 8030
CLOCK NO: 3462 HOUR: 12	DEPTH: 5473.9

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
	SECOND CLOSED-IN - CONTINUED				
12	6.0	1522.5	233.5	5.7	1.307
13	7.0	1523.9	234.9	6.6	1.247
14	8.0	1525.4	236.4	7.5	1.194
15	9.0	1526.5	237.5	8.3	1.145
16	10.0	1527.6	238.6	9.2	1.103
17	12.0	1529.0	240.0	10.8	1.031
18	14.0	1530.0	241.0	12.5	0.970
19	16.0	1531.3	242.3	14.1	0.918
20	18.0	1532.2	243.2	15.6	0.874
21	20.0	1532.5	243.5	17.1	0.834
22	22.0	1533.6	244.6	18.5	0.799
23	24.0	1534.4	245.4	19.9	0.768
24	26.0	1535.2	246.2	21.2	0.740
25	28.0	1535.4	246.4	22.6	0.713
26	30.0	1535.4	246.4	23.9	0.689
27	35.0	1536.8	247.8	26.9	0.637
28	40.0	1537.9	248.9	29.8	0.593
29	45.0	1538.4	249.4	32.5	0.555
30	50.0	1538.4	249.4	35.0	0.523
31	55.0	1538.6	249.6	37.4	0.494
32	60.0	1538.9	249.9	39.6	0.469
33	70.0	1539.4	250.4	43.7	0.426
34	80.0	1540.2	251.2	47.5	0.390
35	90.0	1540.3	251.3	50.8	0.361
36	100.0	1540.3	251.3	53.8	0.335
37	110.0	1540.8	251.8	56.6	0.314
38	120.0	1540.8	251.8	59.1	0.295
[1] 39	133.7	1540.8	251.8	62.3	0.272
G 40	NO DATA FOR THIS POINT				

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

LEGEND:
[1] CHART TIME EXPIRED

REMARKS:

TICKET NO: 00890700

CLOCK NO: 3247 HOUR: 12

GAUGE NO: 8029

DEPTH: 5514.0

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	1052.2			
	2	0.5	984.1	-68.1		
	3	1.0	961.9	-22.2		
	4	1.5	953.7	-8.3		
	5	2.0	950.2	-3.5		
	6	2.5	949.5	-0.7		
	7	3.0	951.5	2.0		
	8	4.0	964.5	13.0		
	9	6.0	1005.8	41.3		
	10	8.0	1053.5	47.7		
	11	10.0	1103.4	49.9		
	12	12.0	1155.3	51.9		
	13	14.0	1204.2	48.9		
	14	16.0	1250.1	45.9		
	15	18.0	1302.5	52.4		
	16	20.0	1349.7	47.2		
	17	22.0	1390.6	40.9		
	18	24.0	1423.6	32.9		
C	19	26.0	1450.3	26.8		
			FIRST CLOSED-IN			
C	1	0.0	1450.3			
	2	0.5	1518.3	68.0	0.5	1.742
	3	1.0	1524.6	74.3	0.9	1.442
	4	1.5	1528.3	78.0	1.4	1.268
	5	2.0	1530.8	80.5	1.8	1.151
	6	2.5	1532.4	82.1	2.3	1.059
	7	3.0	1534.3	84.0	2.7	0.986
	8	3.5	1535.9	85.6	3.1	0.923
	9	4.0	1537.3	86.9	3.5	0.872
	10	4.5	1537.9	87.6	3.8	0.830
	11	5.0	1538.9	88.6	4.2	0.790
	12	6.0	1540.6	90.3	4.8	0.729
	13	7.0	1541.8	91.4	5.5	0.674
	14	8.0	1542.8	92.4	6.1	0.630
	15	9.0	1543.6	93.3	6.7	0.591
	16	10.0	1544.7	94.4	7.2	0.557
	17	12.0	1545.9	95.6	8.2	0.501
	18	14.0	1546.6	96.3	9.1	0.457
	19	16.0	1547.6	97.3	9.9	0.418
	20	18.0	1548.2	97.9	10.6	0.388
	21	20.0	1549.1	98.7	11.3	0.362
	22	22.0	1549.7	99.4	11.9	0.338
	23	24.0	1549.9	99.6	12.5	0.319
	24	26.0	1550.2	99.9	13.0	0.301
	25	28.0	1550.7	100.4	13.5	0.285
	26	30.0	1551.1	100.7	13.9	0.271
	27	35.0	1551.6	101.2	14.9	0.241
	28	40.0	1552.2	101.9	15.7	0.217
	29	45.0	1552.4	102.1	16.5	0.198

REF		MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
			FIRST CLOSED-IN - CONTINUED			
	30	50.0	1552.4	102.1	17.1	0.182
	31	55.0	1552.4	102.1	17.6	0.168
	32	60.0	1553.1	102.7	18.1	0.156
	33	70.0	1553.2	102.9	18.9	0.137
	34	80.0	1553.4	103.1	19.6	0.122
	35	90.0	1553.6	103.2	20.2	0.110
	36	100.0	1553.9	103.6	20.6	0.100
D	37	105.2	1553.9	103.6	20.8	0.096
			SECOND FLOW			
E	1	0.0	1281.1			
	2	0.5	1216.3	-64.9		
	3	1.0	1213.3	-3.0		
	4	1.5	1212.3	-1.0		
	5	2.0	1213.8	1.5		
	6	4.0	1242.1	28.3		
	7	6.0	1264.5	22.5		
	8	8.0	1283.7	19.1		
	9	10.0	1297.8	14.1		
	10	12.0	1308.6	10.8		
	11	14.0	1316.9	8.3		
	12	16.0	1324.3	7.3		
	13	18.0	1329.8	5.5		
	14	20.0	1333.9	4.2		
	15	25.0	1338.6	4.7		
	16	30.0	1348.2	9.7		
	17	35.0	1353.1	4.8		
	18	40.0	1345.7	-7.3		
	19	45.0	1333.8	-12.0		
	20	50.0	1326.9	-6.8		
	21	55.0	1322.4	-4.5		
	22	60.0	1319.1	-3.3		
	23	70.0	1311.9	-7.2		
	24	80.0	1307.8	-4.2		
F	25	90.6	1302.6	-5.2		
			SECOND CLOSED-IN			
F	1	0.0	1302.6			
	2	0.5	1494.2	191.5	0.5	2.375
	3	1.0	1509.0	206.3	1.0	2.082
	4	1.5	1517.6	215.0	1.5	1.897
	5	2.0	1523.3	220.7	2.0	1.768
	6	2.5	1526.8	224.2	2.5	1.670
	7	3.0	1529.1	226.5	2.9	1.601
	8	3.5	1530.9	228.3	3.4	1.537
	9	4.0	1532.6	230.0	3.9	1.475
	10	4.5	1534.1	231.5	4.3	1.429
	11	5.0	1535.6	233.0	4.8	1.383
	12	6.0	1537.3	234.6	5.7	1.312
	13	7.0	1538.8	236.1	6.6	1.248

REMARKS:

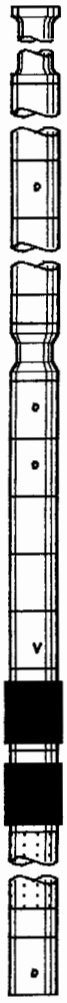
TICKET NO: 00890700	GAUGE NO: 8029
CLOCK NO: 3247 HOUR: 12	DEPTH: 5514.0

REF	MINUTES	PRESSURE	ΔP	$\frac{t \times \Delta t}{t + \Delta t}$	$\log \frac{t + \Delta t}{\Delta t}$
SECOND CLOSED-IN - CONTINUED					
14	8.0	1539.9	237.3	7.5	1.193
15	9.0	1541.4	238.8	8.4	1.145
16	10.0	1542.2	239.6	9.2	1.101
17	12.0	1543.2	240.6	10.8	1.031
18	14.0	1544.7	242.1	12.5	0.968
19	16.0	1545.1	242.5	14.1	0.917
20	18.0	1545.9	243.3	15.6	0.874
21	20.0	1546.6	243.9	17.0	0.835
22	22.0	1547.2	244.6	18.5	0.799
23	24.0	1547.6	244.9	19.9	0.767
24	26.0	1548.2	245.6	21.3	0.739
25	28.0	1548.2	245.6	22.6	0.713
26	30.0	1548.4	245.8	23.9	0.688
27	35.0	1549.2	246.6	26.9	0.637
28	40.0	1549.7	247.1	29.8	0.592
29	45.0	1550.1	247.4	32.5	0.555
30	50.0	1550.7	248.1	35.0	0.522
31	55.0	1550.9	248.3	37.4	0.494
32	60.0	1551.1	248.4	39.6	0.469
33	70.0	1551.6	248.9	43.7	0.426
34	80.0	1552.1	249.4	47.4	0.390
35	90.0	1552.4	249.8	50.8	0.361
36	100.0	1552.7	250.1	53.8	0.336
37	110.0	1553.1	250.4	56.6	0.314
38	120.0	1553.2	250.6	59.1	0.295
39	135.0	1553.2	250.6	62.6	0.270
40	150.0	1553.2	250.6	65.6	0.250
41	165.0	1553.4	250.8	68.3	0.232
G 42	180.3	1553.4	250.8	70.8	0.217

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

REMARKS:

TICKET NO. 00890700

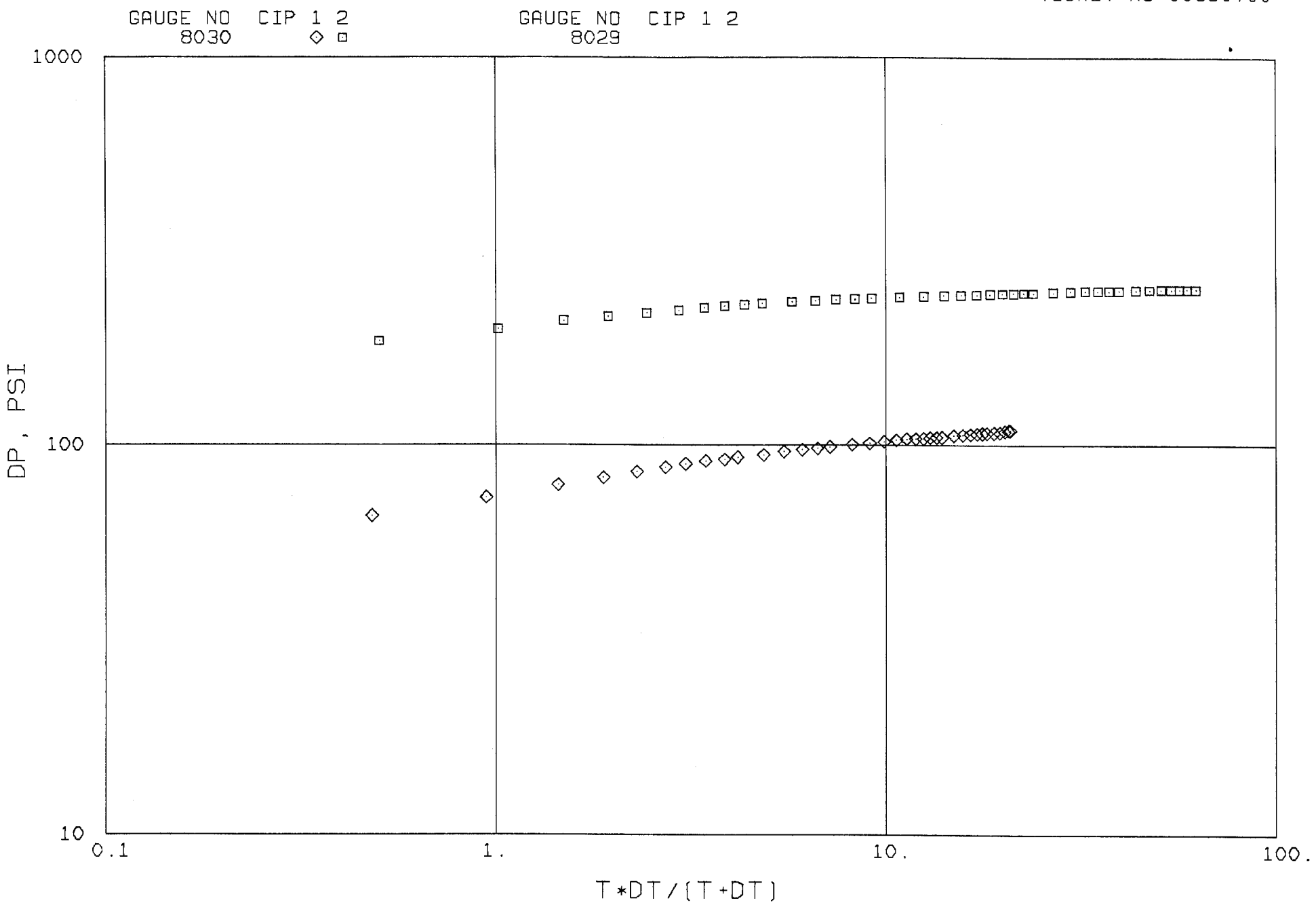


		O.D.	I.D.	LENGTH	DEPTH
1	DRILL PIPE	4.500	3.826	4740.1	
3	DRILL COLLARS	6.000	2.250	652.6	
50	IMPACT REVERSING SUB	6.000	2.170	1.0	5393.2
3	DRILL COLLARS	6.000	2.250	61.9	
5	CROSSOVER	6.000	2.370	1.0	
11	HANDLING SUB & CHOKE ASSEMBLY	4.500	2.430	4.7	
13	DUAL CIP SAMPLER	5.000	0.750	6.6	
60	HYDROSPRING TESTER	5.000	0.750	5.0	5472.8
80	AP RUNNING CASE	5.000	2.250	4.1	5473.9
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	5488.8
70	OPEN HOLE PACKER	6.750	1.530	5.8	5494.6
20	FLUSH JOINT ANCHOR	5.000	2.370	15.0	
83	HT-500 TEMPERATURE CASE	5.000		1.5	5511.9
81	BLANKED-OFF RUNNING CASE	8.000		4.1	5514.0

TOTAL DEPTH 5517.0

EQUIPMENT DATA

TICKET NO 00890700



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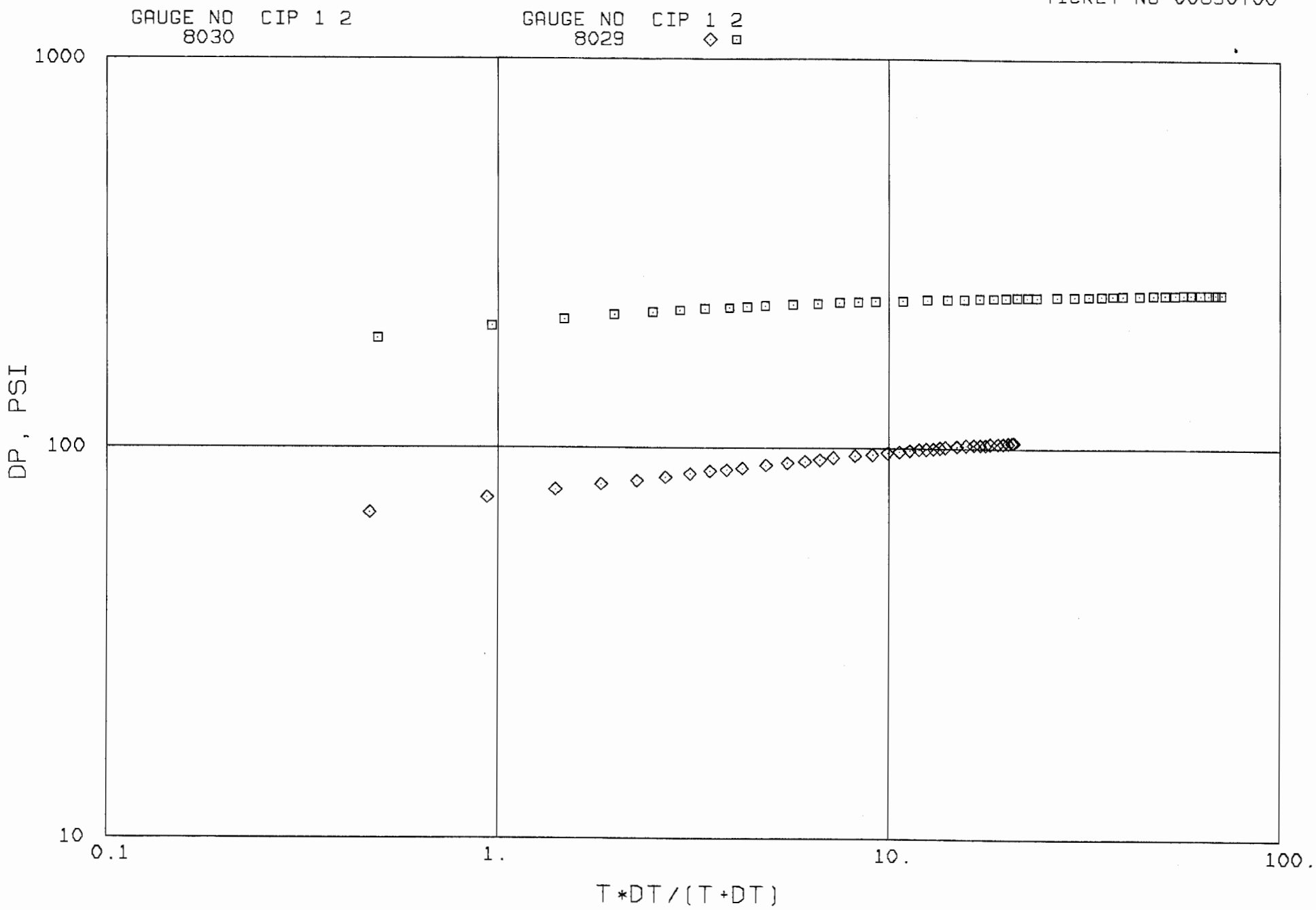

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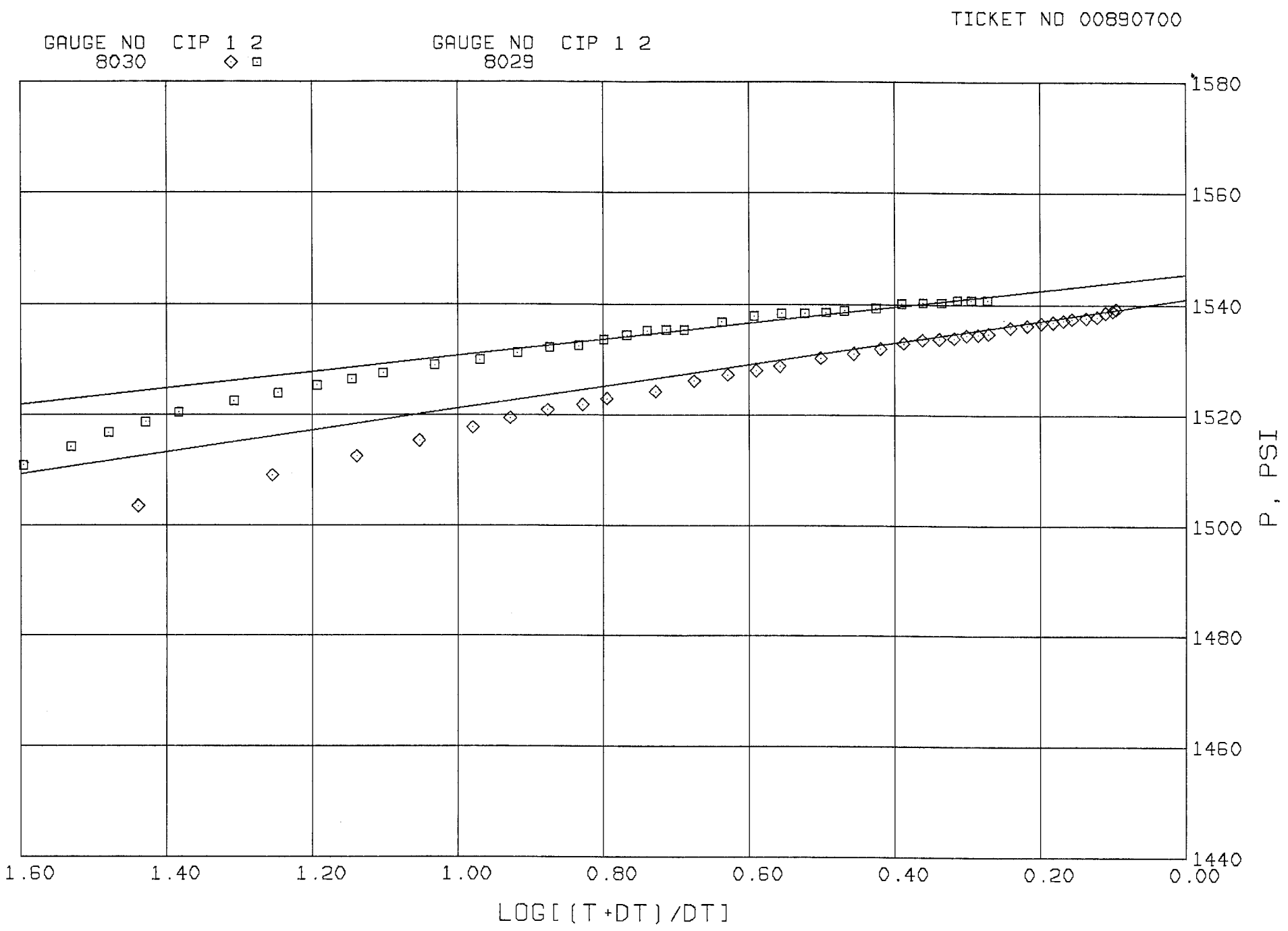

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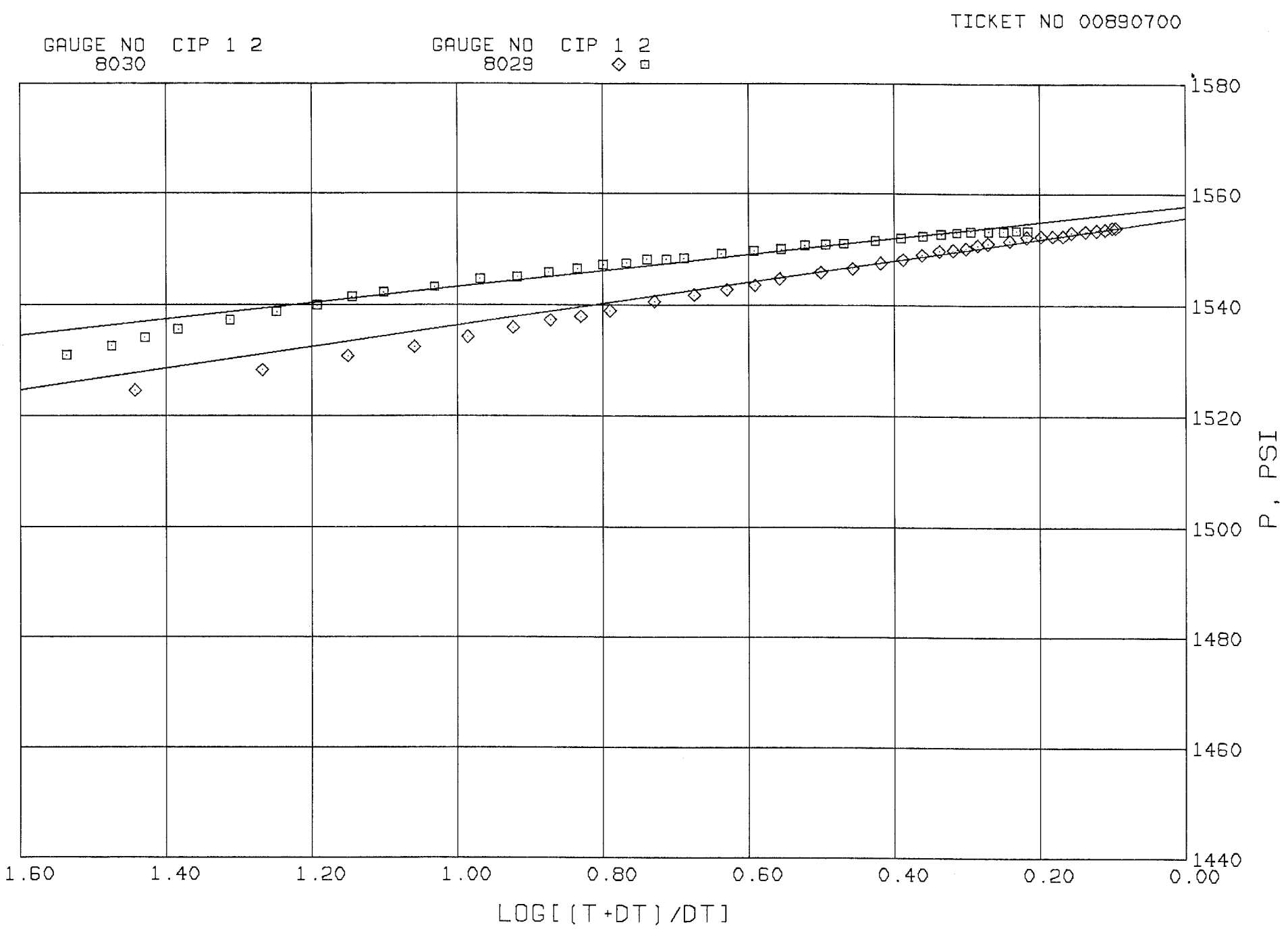

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TICKET NUMBER 00890700

SUMMARY OF RESERVOIR PARAMETERS

USING HORNER METHOD FOR LIQUID WELLS

OIL GRAVITY 43.2 °API@60 °F
GAS GRAVITY 0.700
GAS/OIL RATIO 412.5 SCF/STB
TEMPERATURE 140.0 °F
NET PAY 10.0 ft
POROSITY 10.0 %
PIPE CAPACITY FACTORS 0.00492 0.01422 bbl/ft

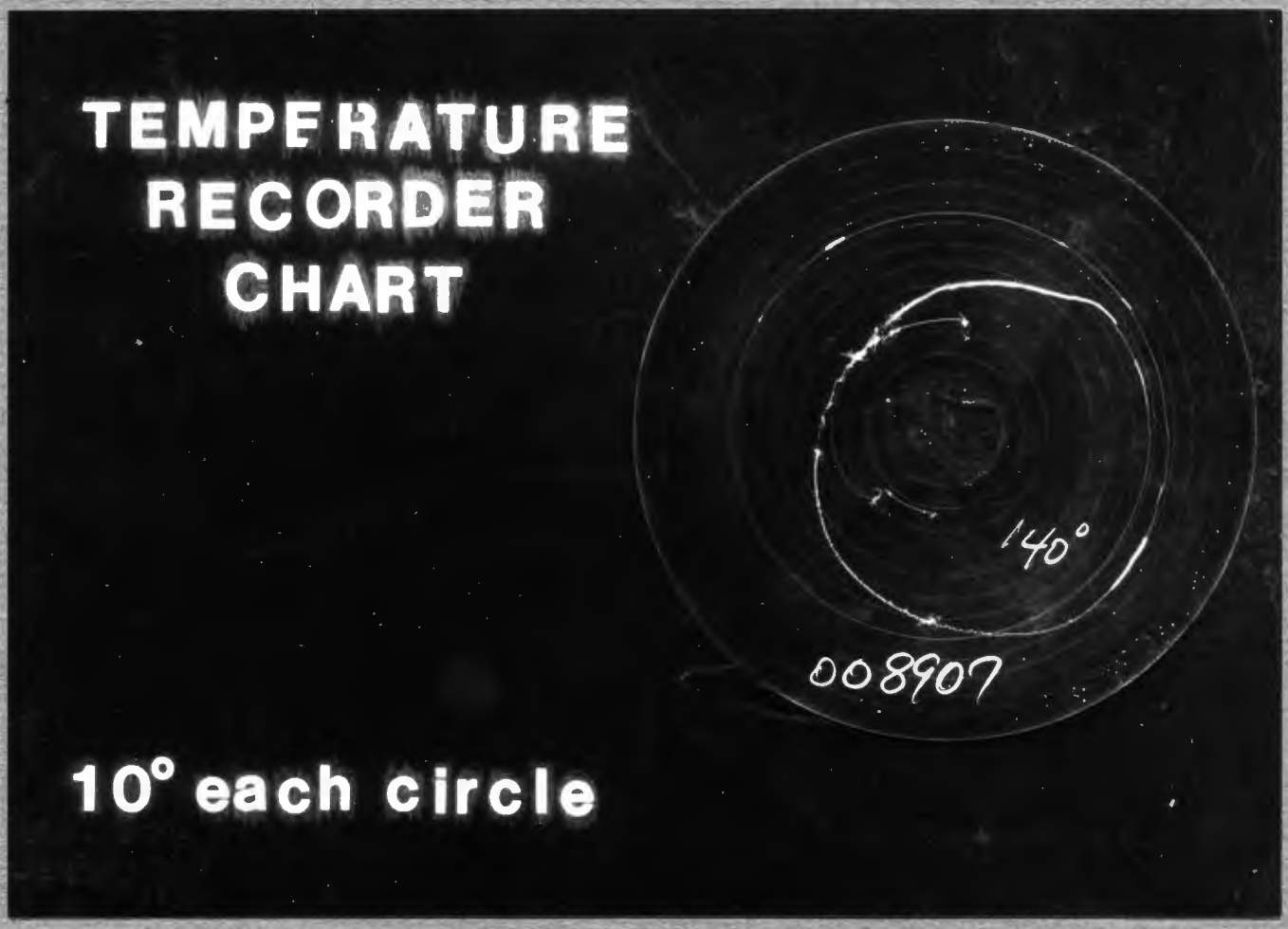
WATER SALINITY 0.0 % SALT
FLUID GRADIENT 0.3510 psi/ft
FLUID PROPERTIES AT 1557.8 psig
VISCOSITY 0.649 cp
FMT VOL FACTOR 1.248 Rvol/Svol
SYSTEM COMPRESSIBILITY 18.28 $\times 10^{-6}$ vol/vol/psi

GAUGE NUMBER		8030	8030	8029	8029			
GAUGE DEPTH		5473.9	5473.9	5514.0	5514.0			
FLOW AND CIP PERIOD		1	2	1	2			UNITS
FINAL FLOW PRESSURE	P_f	1430.0	1289.0	1450.3	1302.6			psig
TOTAL FLOW TIME	t	26.0	116.5	26.0	116.5			min
EXTRAPOLATED PRESSURE	P*	1541.0	1545.5	1555.7	1557.8			psig
ONE CYCLE PRESSURE		1521.2	1530.7	1536.3	1543.3			psig
PRODUCTION RATE	Q	1380.0		1380.0				BPD
TRANSMISSIBILITY	kh/μ	14124.3		14442.9				$\frac{md-ft}{cp}$
FLOW CAPACITY	kh	9171.39		9378.26				md-ft
PERMEABILITY	k	917.139		937.826				md
SKIN FACTOR	S	-0.8		-1.0				
DAMAGE RATIO	DR	0.9		0.9				
POTENTIAL RATE	Q_1	1380.0		1380.0				BPD
RADIUS OF INVESTIGATION	r_i	585.2		591.8				ft

REMARKS: ALL RESULTS ARE EFFECTIVE TO 100% OIL PRODUCTION. NO OIL RATES WERE REPORTED. AN AVERAGE RATE FOR THE FIRST FLOW PERIOD WAS DETERMINED USING THE PRESSURE CHANGE METHOD DURING PIPE FILLUP. THE SECOND CIP WAS NOT ANALYSED DUE TO THE LACK OF A REPORTED RATE ONCE THE WELL FLOWED TO SURFACE DURING THE SECOND FLOW.

DUE TO THE UNCERTAINTY OF RATE DETERMINATION, THE CALCULATED VALUES FOR PERMEABILITY MAY BE QUESTIONABLE.

EQUATIONS FOR DST LIQUID WELL ANALYSIS



Average Effective Permeability	$k = \frac{kh}{h}$	md
Skin Factor	$S = 1.151 \left[\frac{m(P^*)-m(P_1)}{m} - LOG \left(\frac{k\,(t/60)}{\phi\,\mu\,c r_w^2} \right) + 3.23 \right]$	
Damage Ratio	$DR = \frac{m(P^*) - m(P_1)}{m(P^*) - m(P_1) - 0.87\,mS}$	
Indicated Flow Rate (Maximum)	$AOF_1 = \frac{Q_g\, m(P^*)}{m(P^*) - m(P_1)}$	MCFD
Indicated Flow Rate (Minimum)	$AOF_2 = Q_g \sqrt{\frac{m(P^*)}{m(P^*) - m(P_1)}}$	MCFD
Approx. Radius of Investigation	$r_i = 0.032 \sqrt{\frac{k\,(t/60)}{\phi\,\mu\,c}}$	ft