

DST REPORT

GENERAL INFORMATION

DATE : 9-2-95
CUSTOMER : RANGE OIL COMPANY, INC.
WELL : #1 TEST: 1
ELEVATION: 1232 KB
SECTION : 20
RANGE : 4E COUNTY: COWLEY
GAUGE SN#: 10270 RANGE : 4150

TICKET : 21074
LEASE : BARNARD
GEOLOGIST: ?
FORMATION: LAYTON
TOWNSHIP : 31S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2426.00 ft TO: 2437.00 ft TVD: 2437.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 2429.0 ft 2432.0 ft
TEMPERATURE: 102.0

DRILL COLLAR LENGTH:	270.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	2136.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	11.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5FH
PACKER DEPTH:	2421.0 ft	SIZE:	6.630 in
PACKER DEPTH:	2426.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : GLAVES DRILLING
MUD TYPE : CHEMICAL
WEIGHT : 9.400 ppg
CHLORIDES : 1200 ppm
JARS-MAKE :
DID WELL FLOW?: NO

VISCOSITY : 43.00 cp
WATER LOSS: 12.400 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD-WEAK BLOW THROUGHOUT-1/4 INCH
BLOW. FINAL FLOW PERIOD-WEAK BLOW, 1/4INCH BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
20.0	0.0	0.0	60.0	40.0	MUDDY WATER WITH SHOW OF
0.0	0.0	0.0	0.0	0.0	OIL
50.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 34,000 PPM

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	90.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0393	STB	AVERAGE WATER RATE:	5.5076	STB/D
WATER VOLUME:	0.3049	STB			
TOTAL FLUID :	0.3442	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1215.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	20.00	20.00
INITIAL SHUT-IN	30.00		738.00
FINAL FLOW	60.00	31.00	41.00
FINAL SHUT-IN	60.00		717.00

FINAL HYDROSTATIC PRESSURE: 1184.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1244.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	19.00	27.00
INITIAL SHUT-IN	30.00		734.00
FINAL FLOW	60.00	44.00	54.00
FINAL SHUT-IN	60.00		734.00

FINAL HYDROSTATIC PRESSURE: 1180.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9-2-95	TICKET : 21074
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : BARNARD
WELL : #1	GEOLOGIST: ?
ELEVATION: 1232 KB	FORMATION: LAYTON
SECTION : 20	TOWNSHIP : 31S
RANGE : 4E	STATE : KS
GAUGE SN#: 10270	CLOCK : 12
COUNTY: COWLEY	
RANGE : 4150	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	19.00	19.00
5.00	20.00	1.00
10.00	20.00	0.00
15.00	25.00	5.00
20.00	25.00	0.00
25.00	26.00	1.00
30.00	27.00	1.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	245.00	245.00	0.00
6.00	393.00	148.00	0.00
9.00	541.00	148.00	0.00
12.00	614.00	73.00	0.00
15.00	648.00	34.00	0.00
18.00	676.00	28.00	0.00
21.00	697.00	21.00	0.00
24.00	713.00	16.00	0.00
27.00	724.00	11.00	0.00
30.00	734.00	10.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	44.00	44.00

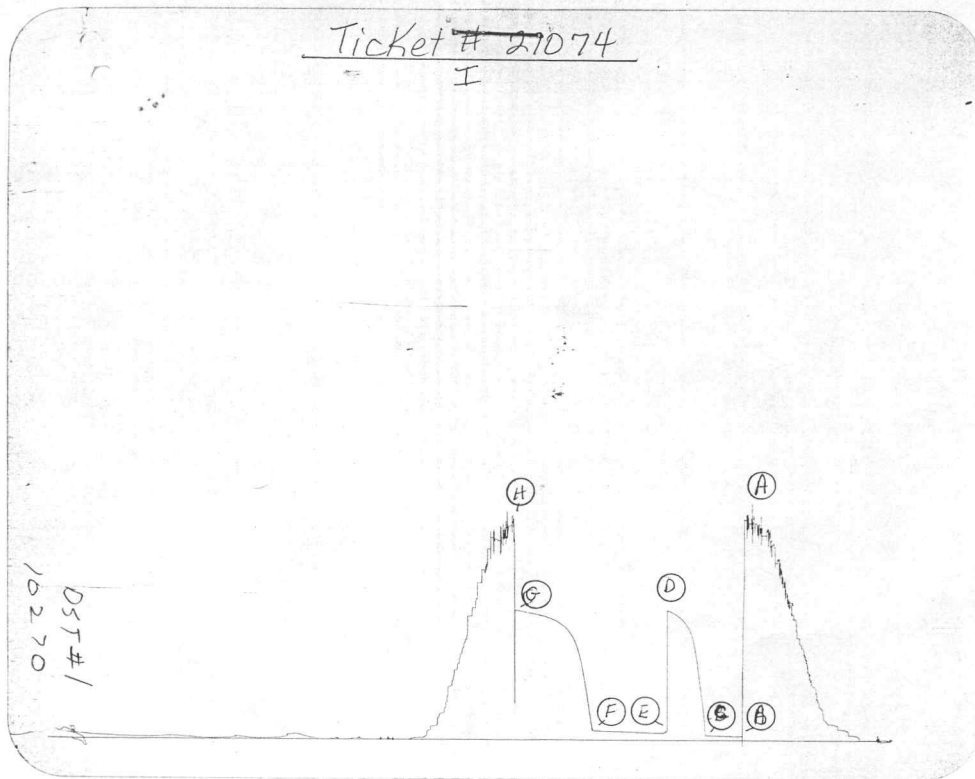
PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

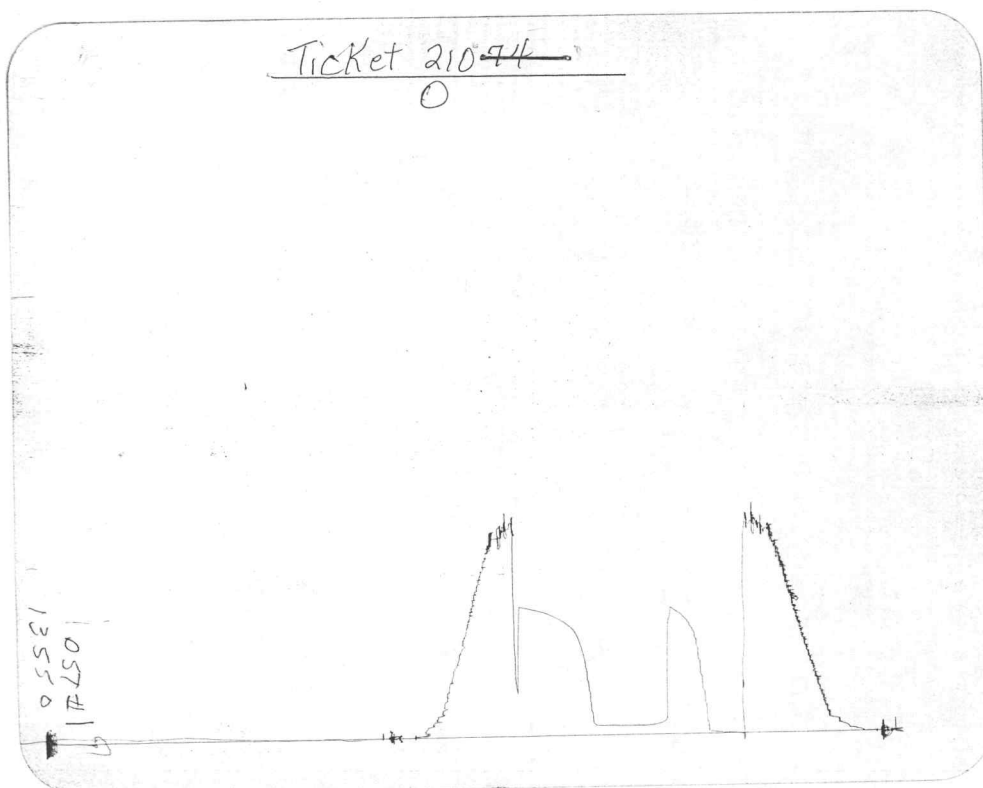
Time (min)	Pressure	Delta P
5.00	40.00	-4.00
10.00	40.00	0.00
15.00	40.00	0.00
20.00	43.00	3.00
25.00	44.00	1.00
30.00	45.00	1.00
35.00	47.00	2.00
40.00	49.00	2.00
45.00	50.00	1.00
50.00	52.00	2.00
55.00	53.00	1.00
60.00	54.00	1.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	209.00	209.00	0.00
6.00	334.00	125.00	0.00
9.00	444.00	110.00	0.00
12.00	520.00	76.00	0.00
15.00	573.00	53.00	0.00
18.00	611.00	38.00	0.00
21.00	633.00	22.00	0.00
24.00	653.00	20.00	0.00
27.00	665.00	12.00	0.00
30.00	677.00	12.00	0.00
33.00	687.00	10.00	0.00
36.00	695.00	8.00	0.00
39.00	702.00	7.00	0.00
42.00	705.00	3.00	0.00
45.00	712.00	7.00	0.00
48.00	716.00	4.00	0.00
51.00	723.00	7.00	0.00
54.00	725.00	2.00	0.00
57.00	729.00	4.00	0.00
60.00	734.00	5.00	0.00



Inside Recorder



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE	: 9-3-95	TICKET	: 21281
CUSTOMER	: RANGE OIL COMPANY, INC.	LEASE	: BARNARD
WELL	: #1	TEST:	2
ELEVATION	: 1232 KB	GEOLOGIST	: ?
SECTION	: 20	FORMATION	: BARRESVILLE
RANGE	: 4E	TOWNSHIP	: 31S
GAUGE SN#	: 4332	STATE	: KS
	COUNTY: COWLEY	CLOCK	: 12
	RANGE : 4200		

WELL INFORMATION

PERFORATION INTERVAL FROM:	3012.00 ft	TO:	3020.00 ft	TVD:	3020.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	3013.0 ft		3016.0 ft		
TEMPERATURE:	112.0				
DRILL COLLAR LENGTH:	212.0 ft	I.D.:		2.250 in	
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:		0.000 in	
DRILL PIPE LENGTH :	2780.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :		5.500 in	
ANCHOR LENGTH :	8.0 ft	ANCHOR SIZE:		5.500 in	
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:		0.750 in	
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :		4.5XH	
PACKER DEPTH:	3007.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	3012.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	
PACKER DEPTH:	0.0 ft	SIZE:		0.000 in	

MUD INFORMATION

DRILLING CON. :	GLAVES DRILLING	VISCOSITY :	37.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	12.800 cc
WEIGHT :	9.700 ppg		
CHLORIDES :	1600 ppm	SERIAL NUMBER:	
JARS-MAKE :		REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD-STRONG BLOW IN 1 MINUTE.
GAS TO SURFACE DURING INITIAL SHUT-IN. SEE
ATTACHED SHEET.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
540.0	100.0	0.0	0.0	0.0	FREE OIL 39 GRAVITY
0.0	0.0	0.0	0.0	0.0	CORRECTED
120.0	40.0	20.0	0.0	40.0	MUDDY OIL
60.0	0.0	0.0	40.0	60.0	WATERY MUD
0.0	0.0	0.0	0.0	0.0	CHLORIDES 32,000 PPM

RATE INFORMATION

OIL VOLUME:	7.5188	STB	TOTAL FLOW TIME:	75.0000	min.
GAS VOLUME:	0.6627	SCF	AVERAGE OIL RATE:	148.8927	STB/D
MUD VOLUME:	0.4131	STB	AVERAGE WATER RATE:	5.6649	STB/D
WATER VOLUME:	0.1180	STB			
TOTAL FLUID :	8.0499	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1603.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	108.00	129.00
INITIAL SHUT-IN	30.00		1072.00
FINAL FLOW	60.00	216.00	270.00
FINAL SHUT-IN	60.00		1072.00
FINAL HYDROSTATIC PRESSURE:	1603.00		

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1654.00

Description	Duration	p1	p End
INITIAL FLOW	20.00	131.00	142.00
INITIAL SHUT-IN	39.00		1100.00
FINAL FLOW	55.00	224.00	273.00
FINAL SHUT-IN	63.00		1102.00
FINAL HYDROSTATIC PRESSURE:	1593.00		

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 9-3-95	TICKET : 21281
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : BARNARD
WELL : #1	TEST: 2
ELEVATION: 1232 KB	GEOLOGIST: ?
SECTION : 20	FORMATION: BARRESVILLE
RANGE : 4E	TOWNSHIP : 31S
COUNTY: COWLEY	STATE : KS
GAUGE SN#: 4332	RANGE : 4200
	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
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SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN	MERLA	0.500	7" OF WATER	16700 SCF/D
20 MIN	MERLA	0.500	7" OF WATER	16700 SCF/D
30 MIN	MERLA	0.500	5" OF WATER	14100 SCF/D
40 MIN	MERLA	0.500	5" OF WATER	14100 SCF/D
50 MIN	MERLA	0.500	5" OF WATER	14100 SCF/D
60 MIN	MERLA	0.500	5" OF WATER	14100 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 9-3-95	TICKET : 21281
CUSTOMER : RANGE OIL COMPANY, INC.	LEASE : BARNARD
WELL : #1	GEOLOGIST: ?
ELEVATION: 1232 KB	FORMATION: BARRESVILLE
SECTION : 20	TOWNSHIP : 31S
RANGE : 4E	STATE : KS
GAUGE SN#: 4332	CLOCK : 12
COUNTY: COWLEY	
RANGE : 4200	

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	131.00	131.00
5.00	128.00	-3.00
10.00	128.00	0.00
15.00	134.00	6.00
20.00	142.00	8.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	196.00	196.00	7.67
6.00	609.00	413.00	4.33
9.00	761.00	152.00	3.22
12.00	930.00	169.00	2.67
15.00	992.00	62.00	2.33
18.00	1039.00	47.00	2.11
21.00	1058.00	19.00	1.95
24.00	1076.00	18.00	1.83
27.00	1090.00	14.00	1.74
30.00	1099.00	9.00	1.67
33.00	1107.00	8.00	1.61
36.00	1113.00	6.00	1.56
39.00	1100.00	-13.00	1.51

FINAL FLOW

Time (min)	Pressure	Delta P
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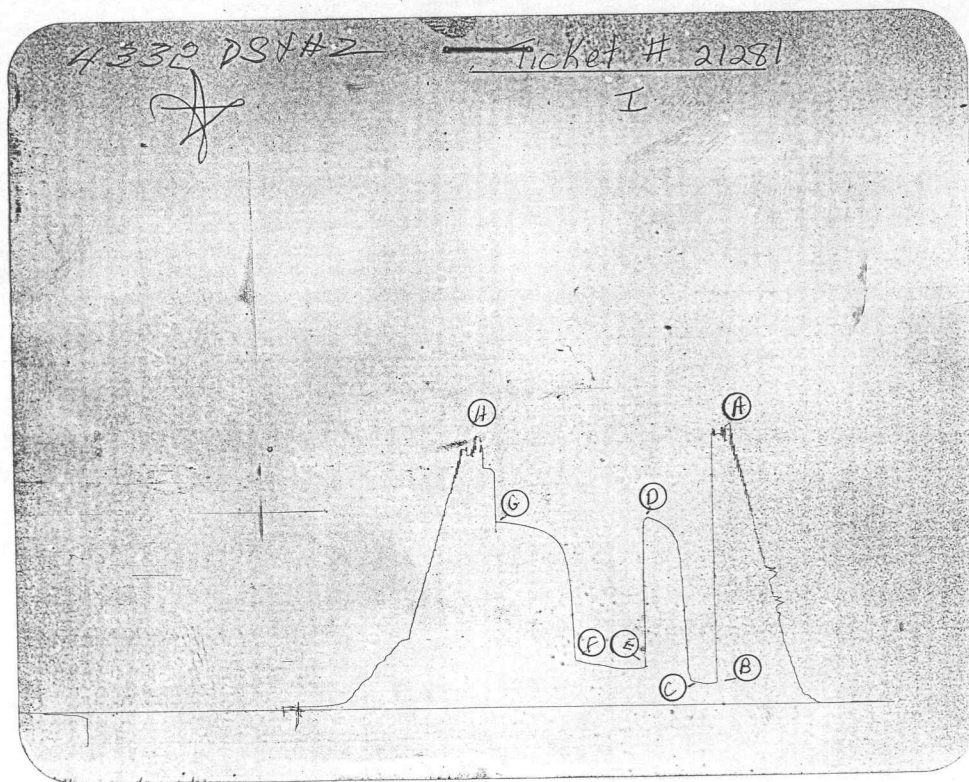
PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

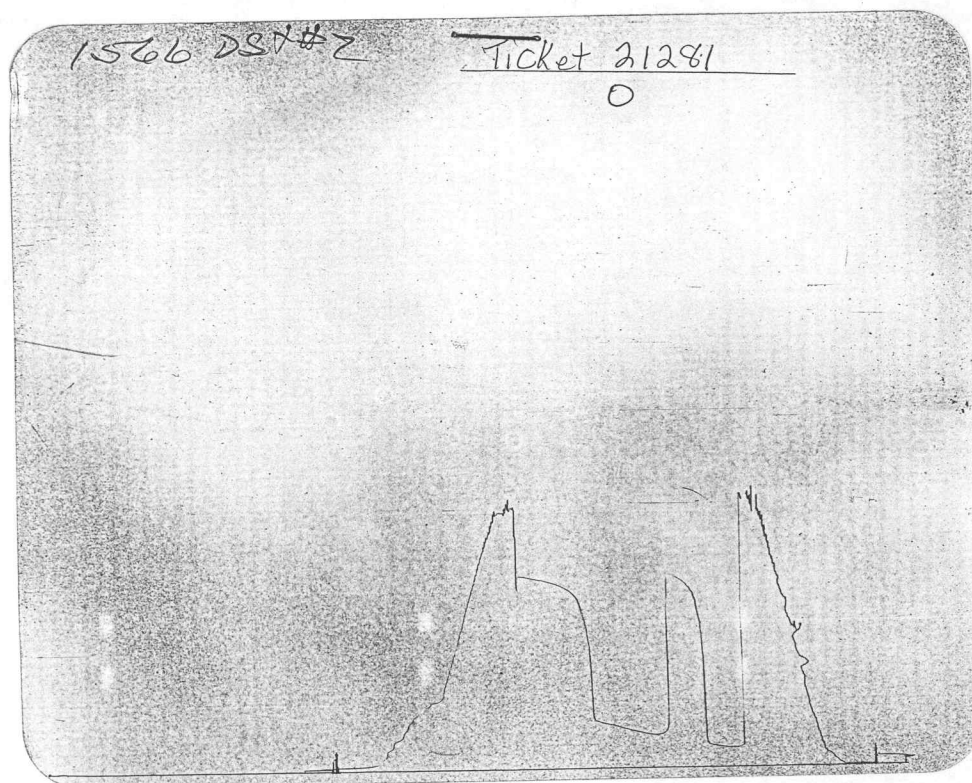
Time (min)	Pressure	Delta P
0.00	224.00	224.00
5.00	224.00	0.00
10.00	224.00	0.00
15.00	224.00	0.00
20.00	224.00	0.00
25.00	228.00	4.00
30.00	235.00	7.00
35.00	245.00	10.00
40.00	250.00	5.00
45.00	255.00	5.00
50.00	264.00	9.00
55.00	273.00	9.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	659.00	659.00	19.33
6.00	820.00	161.00	10.17
9.00	907.00	87.00	7.11
12.00	946.00	39.00	5.58
15.00	980.00	34.00	4.67
18.00	1003.00	23.00	4.06
21.00	1020.00	17.00	3.62
24.00	1034.00	14.00	3.29
27.00	1046.00	12.00	3.04
30.00	1055.00	9.00	2.83
33.00	1059.00	4.00	2.67
36.00	1067.00	8.00	2.53
39.00	1072.00	5.00	2.41
42.00	1080.00	8.00	2.31
45.00	1082.00	2.00	2.22
48.00	1087.00	5.00	2.15
51.00	1091.00	4.00	2.08
54.00	1093.00	2.00	2.02
57.00	1096.00	3.00	1.96
60.00	1099.00	3.00	1.92
63.00	1102.00	3.00	1.87



Inside Recorder



Outside Recorder