

**UNIVERSITAT DE BARCELONA**

**DEPARTAMENT DE CIENCIAS**

**MORFOLÓGIQUES I**

**ODONTO-ESTOMATOLOGIA**

**TESIS DOCTORAL**

**"ESTUDIO RUGOSIMÉTRICO DE LA  
SUPERFICIE DE LA CERÁMICA  
FELDESPÁTICA UTILIZADA EN LA  
ELABORACIÓN DE RESTAURACIONES  
CERAMO-METÁLICAS"**

**PRESENTADA POR EL LICENCIADO EN**

**MEDICINA Y CIRUGÍA:**

**JOSÉ MARÍA ANGLADA CANTARELL**

**DIRECTORES:**

**PROF. F. J. GASCÓN MAYORDOMO (E.P.D.)**

**PROF. J. SALSENCH CABRÉ**

**BARCELONA JUNIO 1992**



PERTHOMETER M4P  
DAT.  
OBJ. IPB 186  
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LT 4.8 MM  
RA 5.65 UM  
RZ 27.26 UM  
RMAX 43.52 UM  
RPM 16.32 UM  
PC<1.3> 037 /CM

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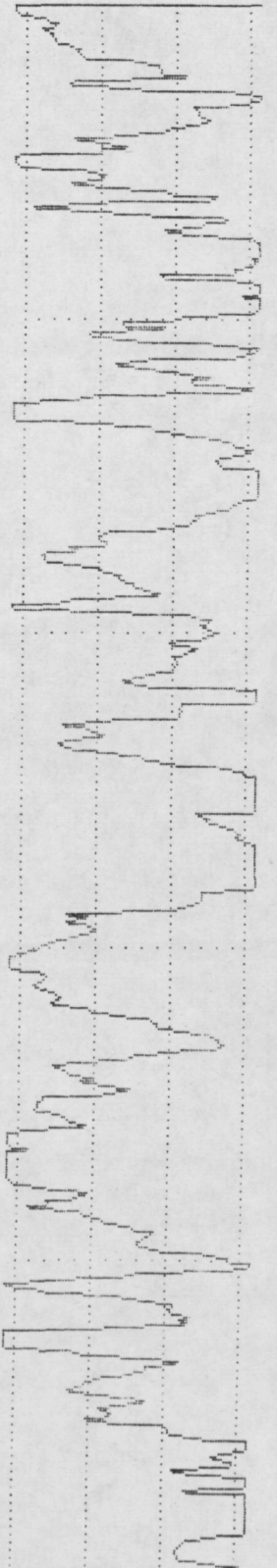
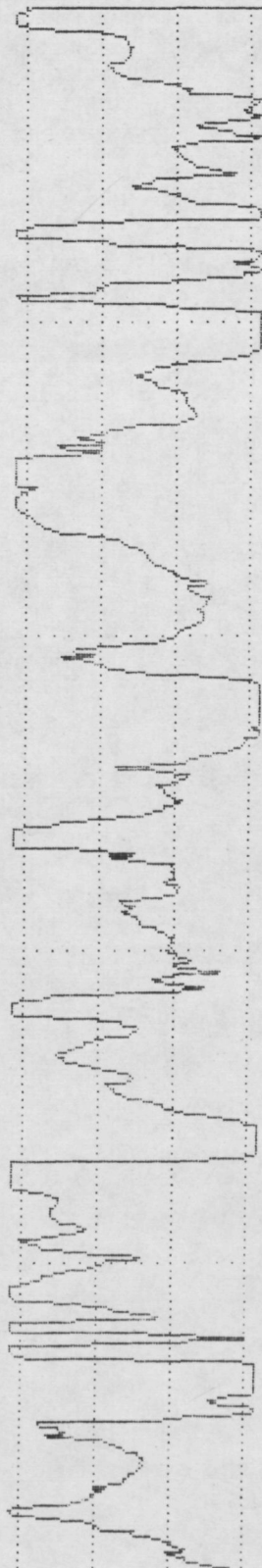
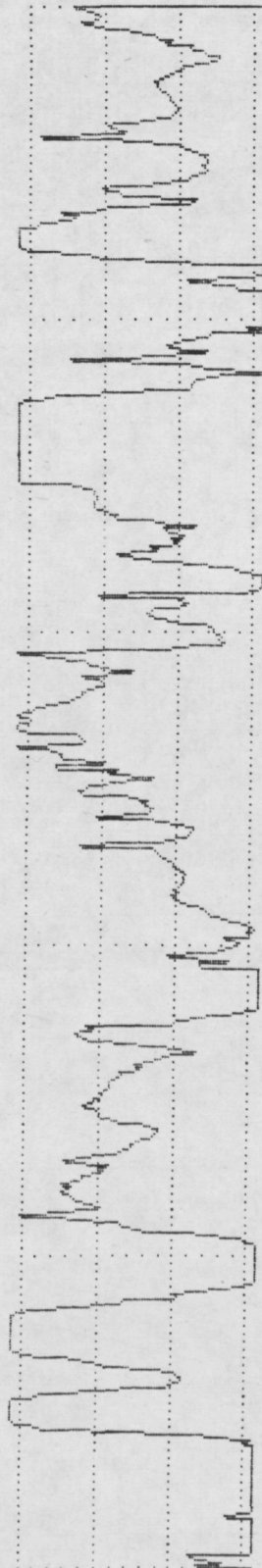
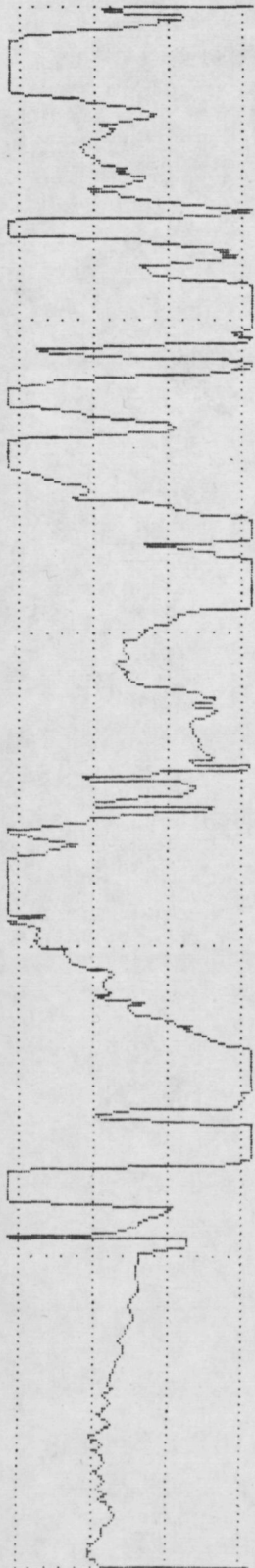
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RPM 13.82 UM  
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VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM



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RMAX 61.44 UM  
RPM 18.62 UM  
PC<1.3> 032 /CM

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OBJ. IPB 20a  
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RZ 18.52 UM  
RMAX 29.28 UM  
RPM 8.99 UM  
PC<1.3> 030 /CM

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OBJ. IPB 20b  
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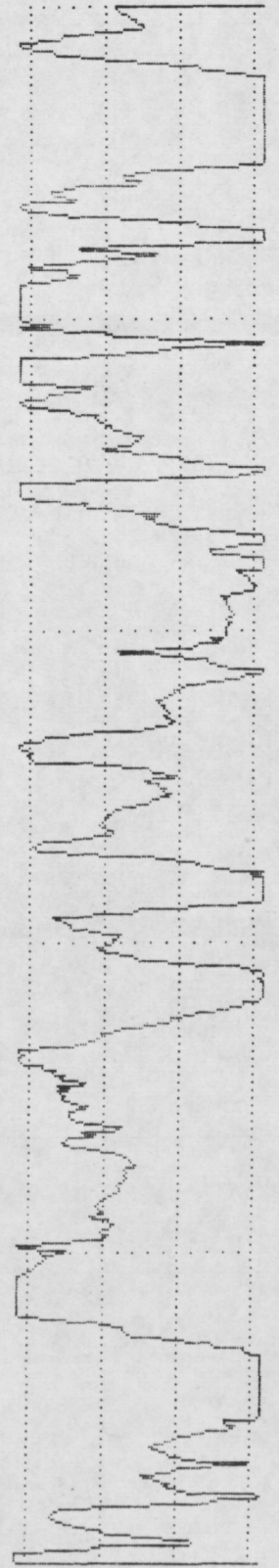
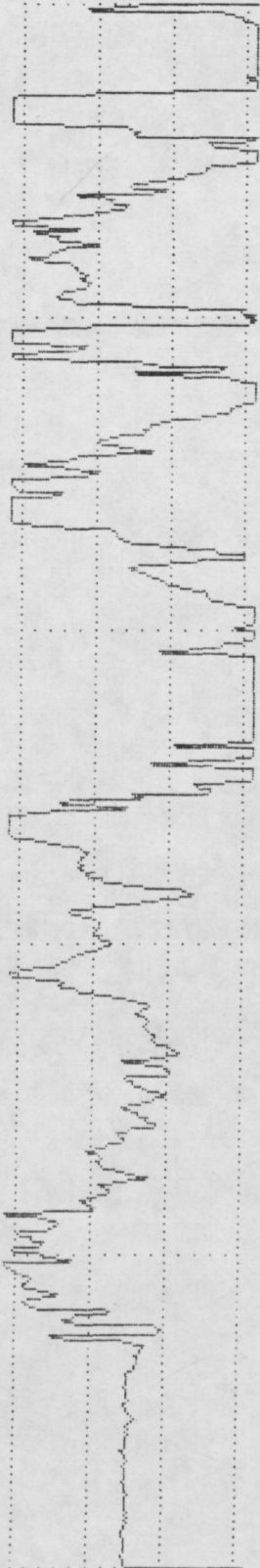
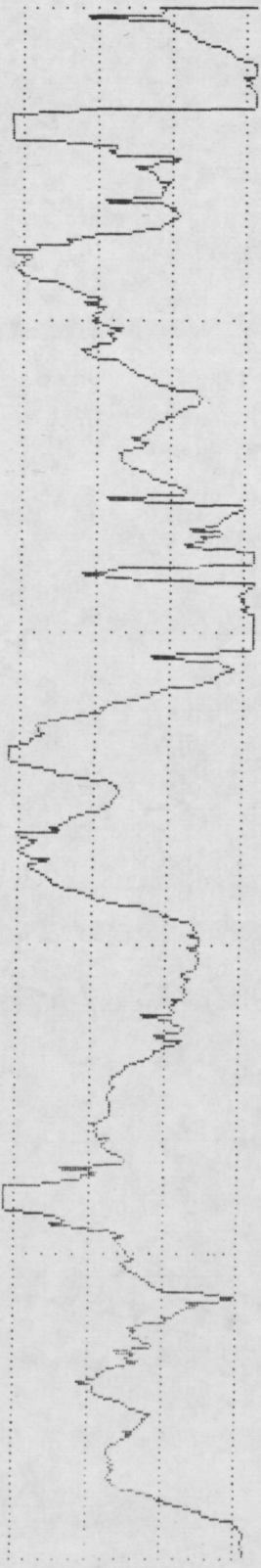
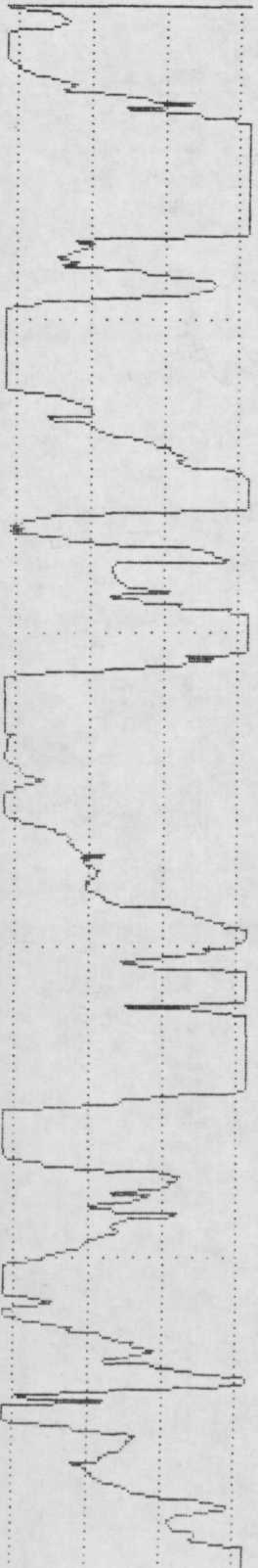
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RPM 16.00 UM  
PC<1.3> 032 /CM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM



PERTHOMETER M4P  
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 OBJ.VIB1a  
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 LT 4.8 MM  
 RA 4.36 UM  
 RZ 25.02 UM  
 RMAX 38.72 UM  
 RPM 14.65 UM  
 PC<1.3> 050 /CM

PERTHOMETER M4P  
 DAT.  
 OBJ.VIB1b  
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 LT 4.8 MM  
 RA 5.21 UM  
 RZ 27.32 UM  
 RMAX 42.56 UM  
 RPM 14.52 UM  
 PC<1.3> 030 /CM

PERTHOMETER M4P  
 DAT.  
 OBJ.VIB1c  
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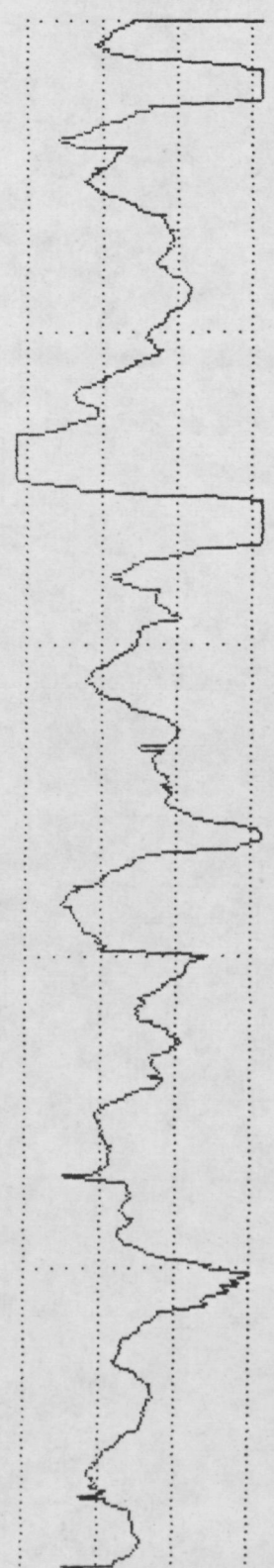
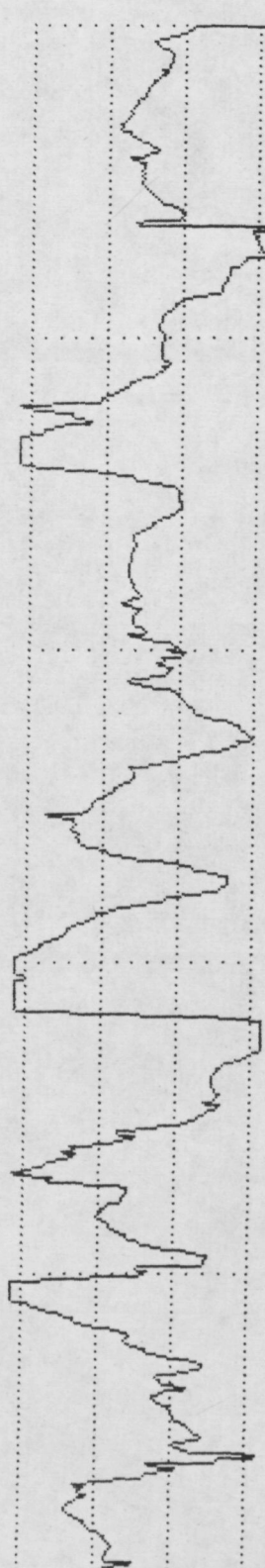
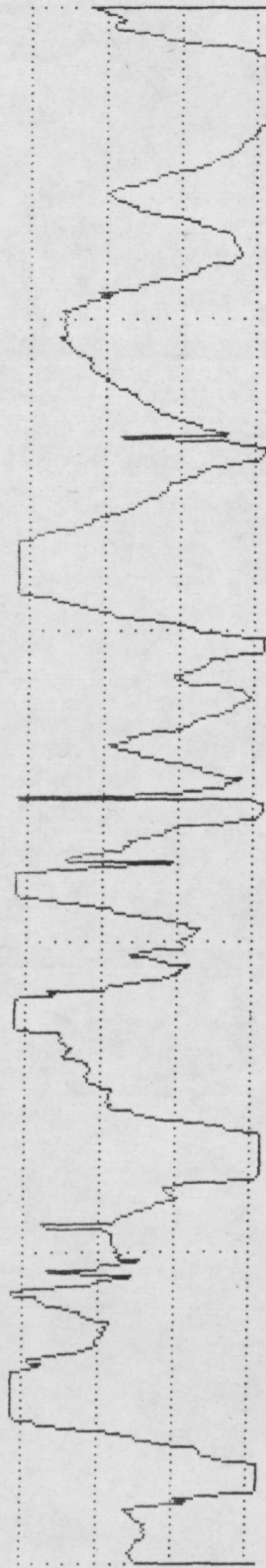
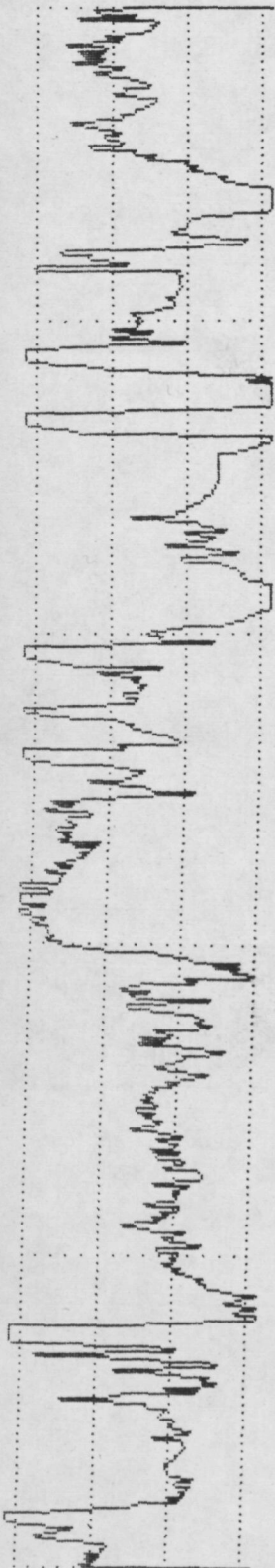
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 RPM 8.64 UM  
 PC<1.3> 020 /CM

VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
 HOR LC .80 MM



PERTHOMETER M4P  
DAT.  
OBJ.VIB2 b  
#  
LT 4.8 MM  
RA 4.83 UM  
RZ 22.20 UM  
RMAX 32.64 UM  
RPM 13.31 UM  
PC<1.3> 020 /CM

PERTHOMETER M4P  
DAT.  
OBJ.VIB2 c  
#  
LT 4.8 MM  
RA 4.98 UM  
RZ 22.40 UM  
RMAX 26.88 UM  
RPM 11.74 UM  
PC<1.3> 030 /CM

PERTHOMETER M4P  
DAT.  
OBJ.VIB3 a  
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RZ 13.15 UM  
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PC<1.3> 027 /CM

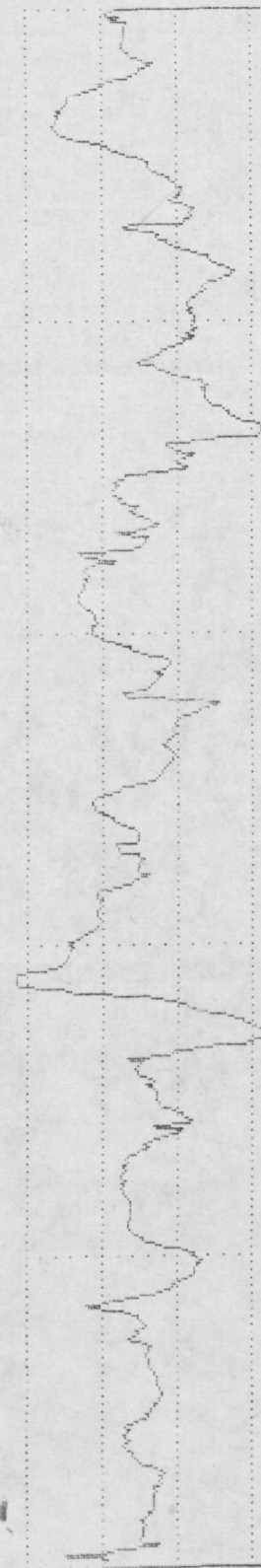
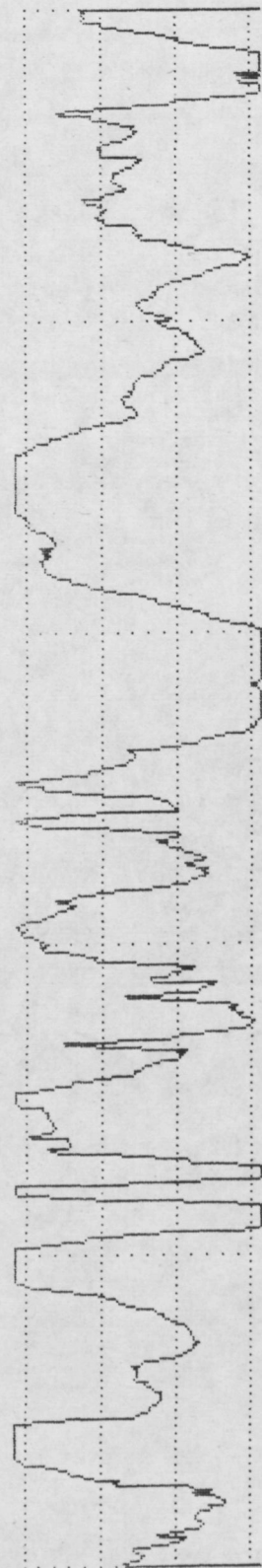
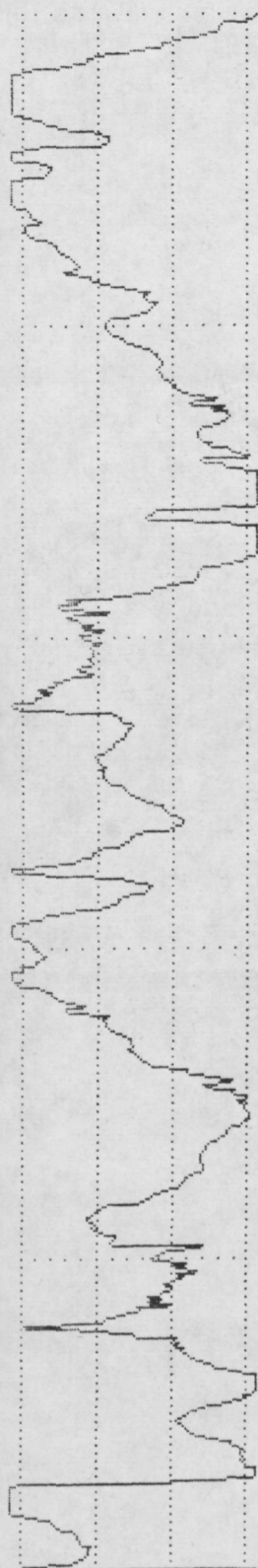
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RPM 15.48 UM  
PC<1.3> 020 /CM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM



PERTHOMETER M4P  
 DAT.  
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 LT 4.8 MM  
 RA 3.16 UM  
 RZ 13.92 UM  
 RMAX 21.12 UM  
 RPM 6.14 UM  
 PC<1.3> 020 /CM

PERTHOMETER M4P  
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 RA 6.51 UM  
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 PC<1.3> 035 /CM

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 OBJ.VIB4b  
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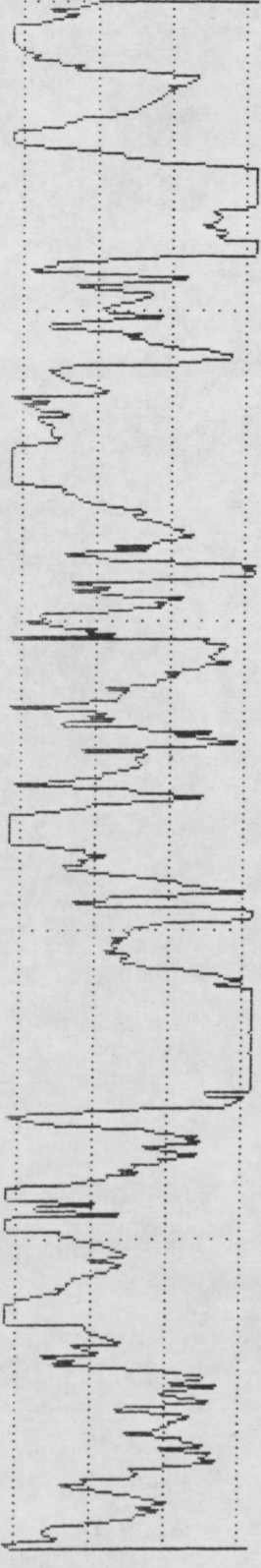
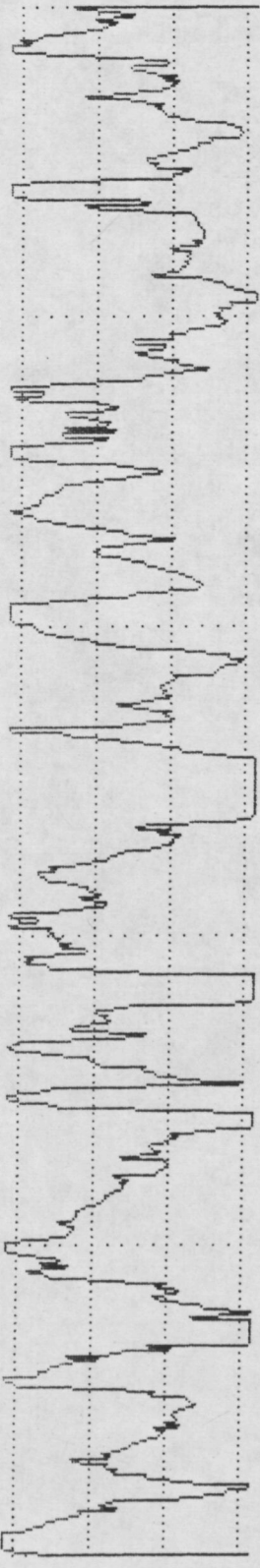
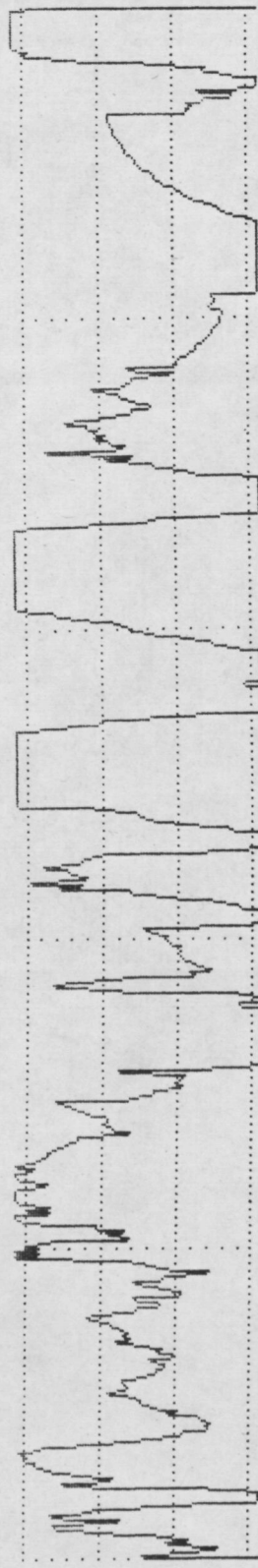
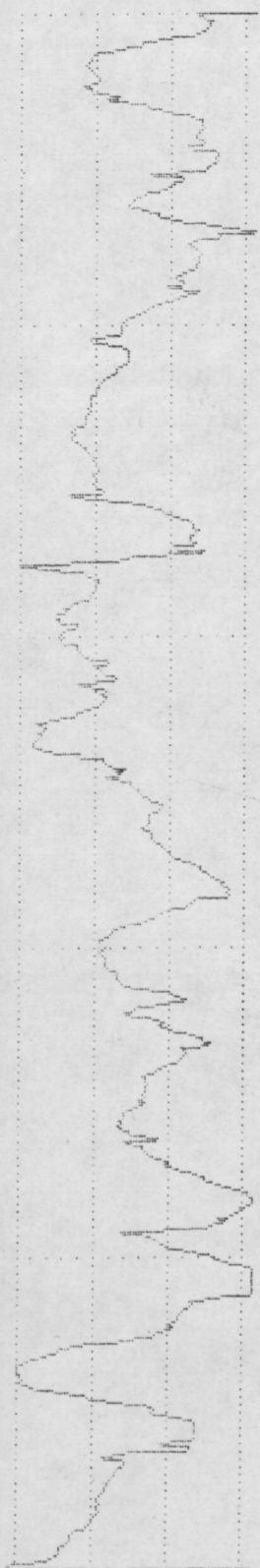
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 RPM 18.81 UM  
 PC<1.3> 055 /CM

VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
 HOR LC .80 MM



PERTHOMETER M4P  
DAT.  
OBJ.VI85a  
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LT 4.8 MM  
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RZ 11.98 UM  
RMAX 16.72 UM  
RPM 5.90 UM  
PC<1.3> 010 /CM

PERTHOMETER M4P  
DAT.  
OBJ.VI85b  
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LT 4.8 MM  
RA 2.74 UM  
RZ 11.64 UM  
RMAX 14.00 UM  
RPM 5.36 UM  
PC<1.3> 015 /CM

PERTHOMETER M4P  
DAT.  
OBJ.VI85c  
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PC<1.3> 015 /CM

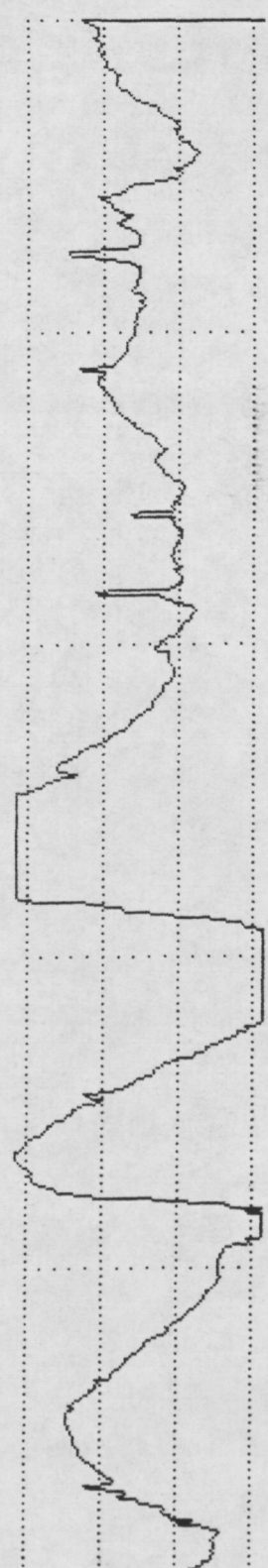
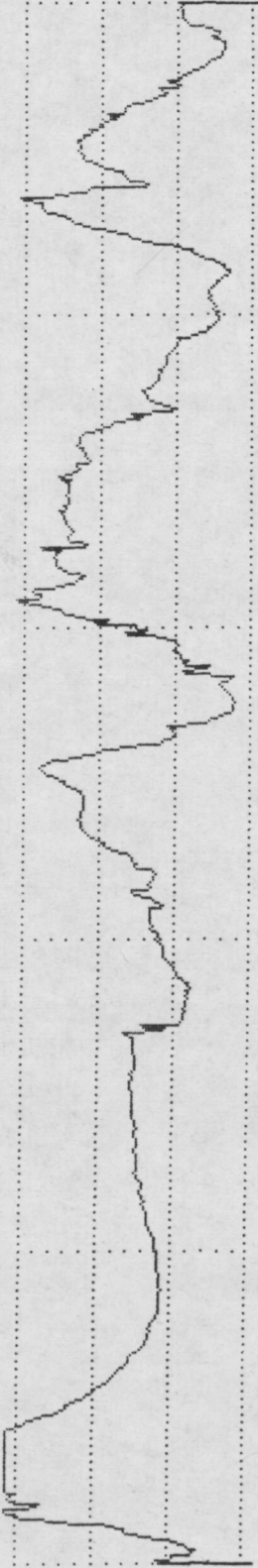
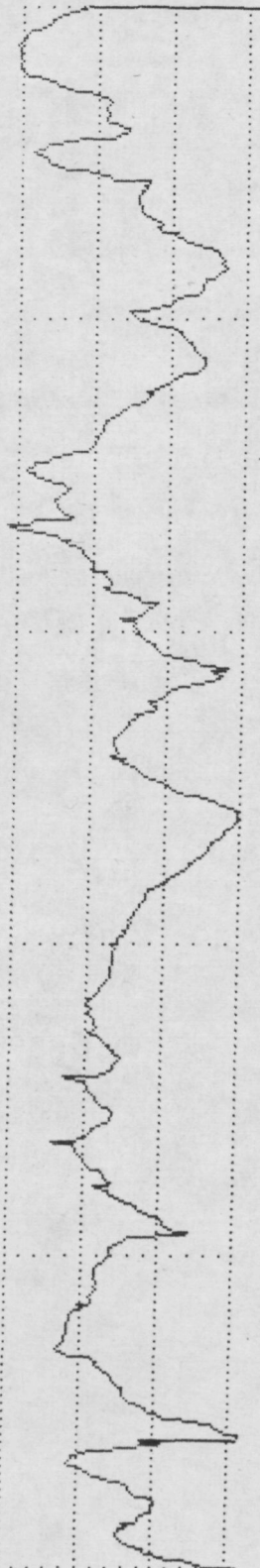
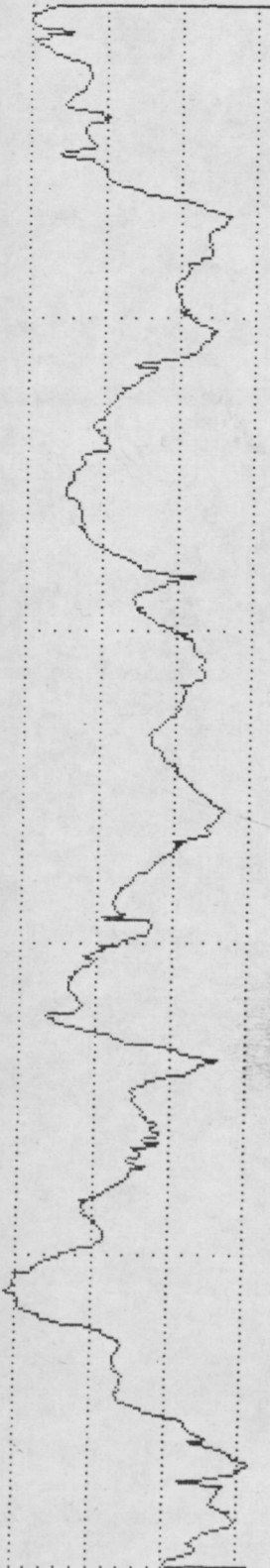
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RPM 8.06 UM  
PC<1.3> 015 /CM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM



PERTHOMETER M4P  
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 OBJ.VIB6 b  
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 RPM 4.73 UM  
 PC<1.3> 022 /CM

PERTHOMETER M4P  
 DAT.  
 OBJ.VIB6 c  
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 LT 4.8 MM  
 RA 4.19 UM  
 RZ 18.62 UM  
 RMAX 32.32 UM  
 RPM 9.60 UM  
 PC<1.3> 020 /CM

PERTHOMETER M4P  
 DAT.  
 OBJ.VIB7 a  
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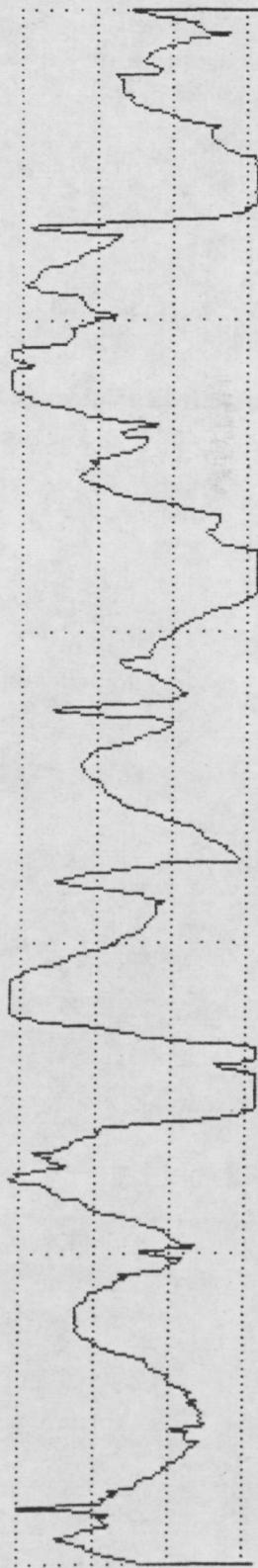
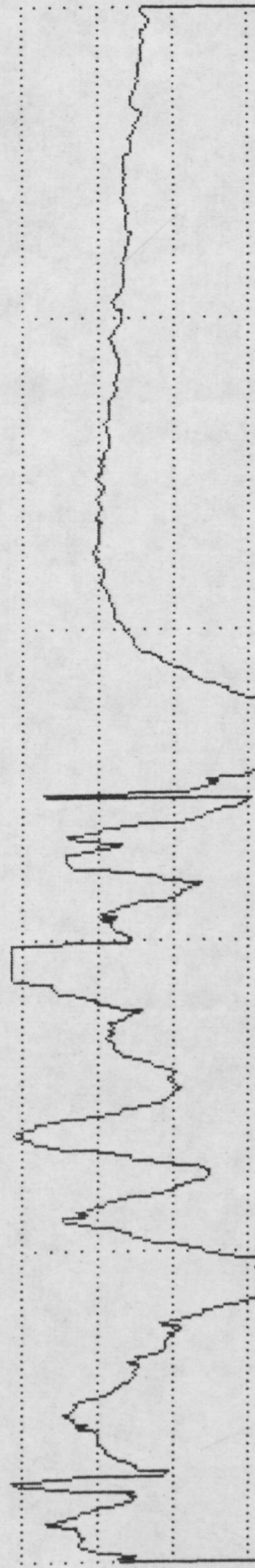
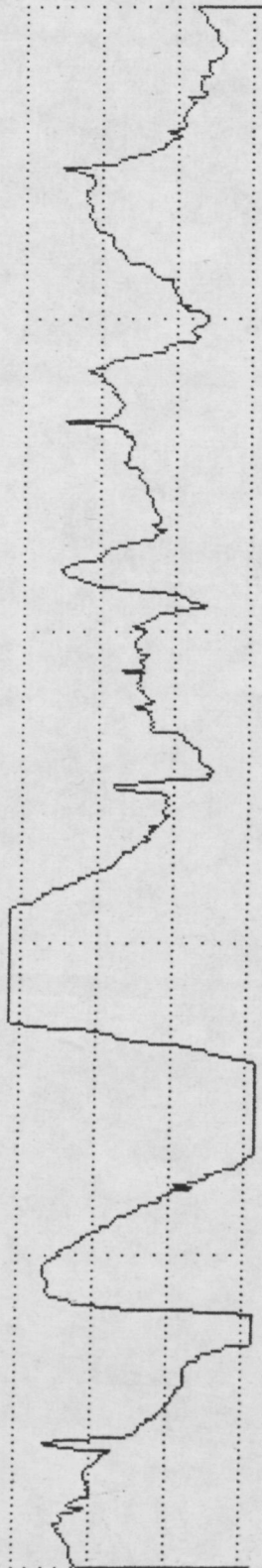
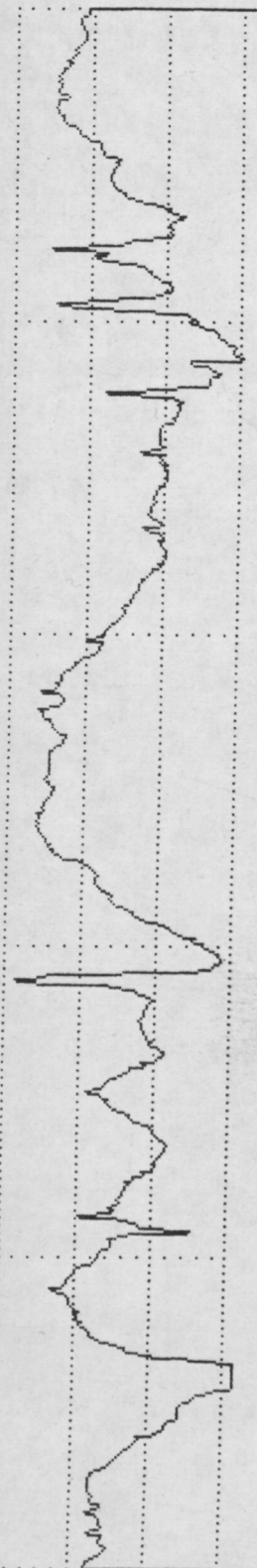
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 RZ 18.36 UM  
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 RPM 9.85 UM  
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VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
 HOR LC .80 MM

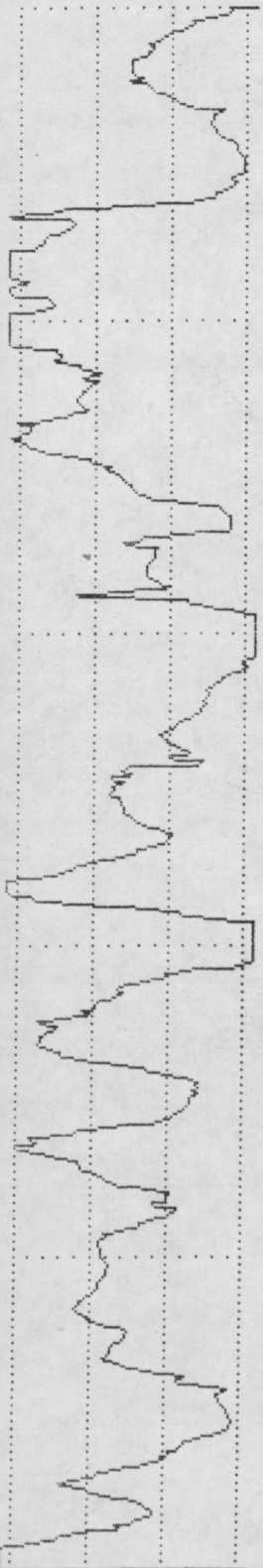
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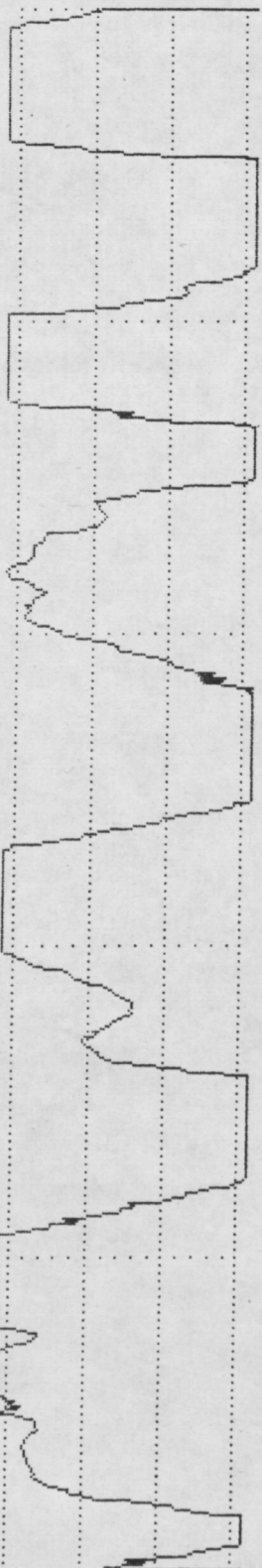
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VER 5 UM  
 HOR LC .80 MM



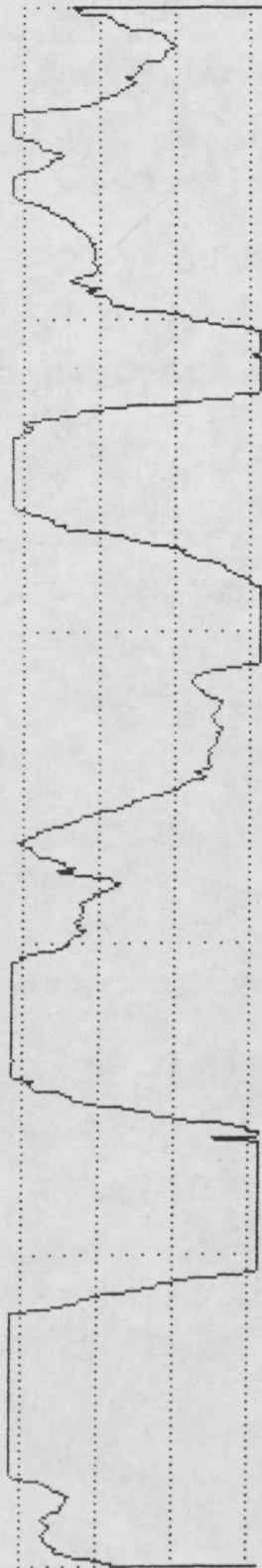
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VER 5 UM  
 HOR LC .80 MM



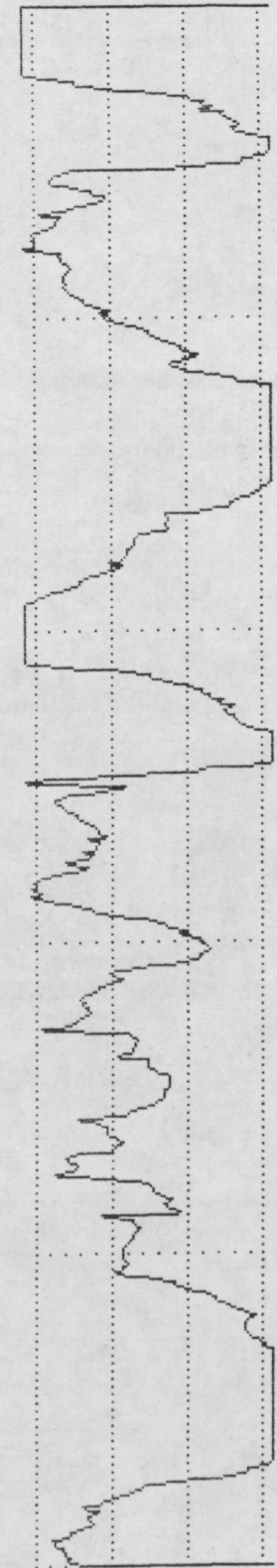
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 RPM 12.99 UM  
 PC<1.3> 010 /CM

VER 5 UM  
 HOR LC .80 MM



PERTHOMETER M4P  
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 RA 6.03 UM  
 RZ 26.04 UM  
 RMAX 44.16 UM  
 RPM 14.14 UM  
 PC<1.3> 017 /CM

VER 5 UM  
 HOR LC .80 MM



PERTHOMETER M4P  
DAT.  
OBJVIB9a  
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LT 4.8 MM  
RA 3.23 UM  
RZ 14.72 UM  
RMAX 21.44 UM  
RPM 8.22 UM  
PC<1.3> 032 /CM

PERTHOMETER M4P  
DAT.  
OBJVIB9b  
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LT 4.8 MM  
RA 5.80 UM  
RZ 23.10 UM  
RMAX 40.96 UM  
RPM 12.92 UM  
PC<1.3> 020 /CM

PERTHOMETER M4P  
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OBJVIB9c  
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PC<1.3> 020 /CM

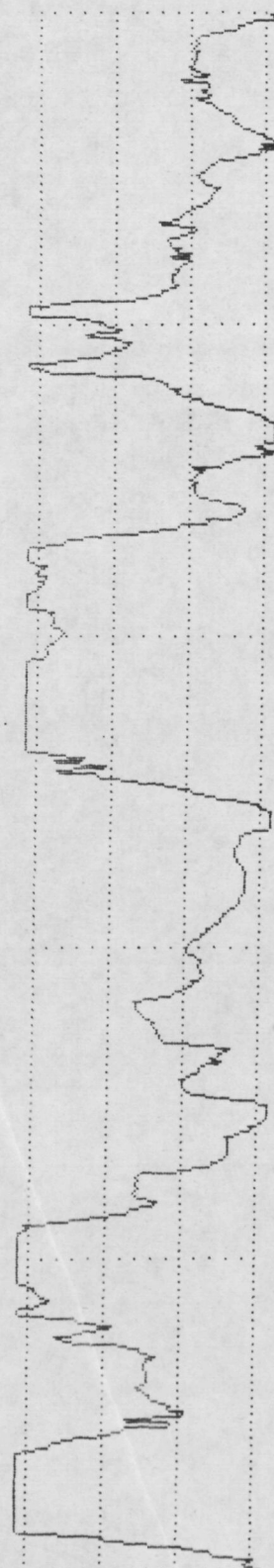
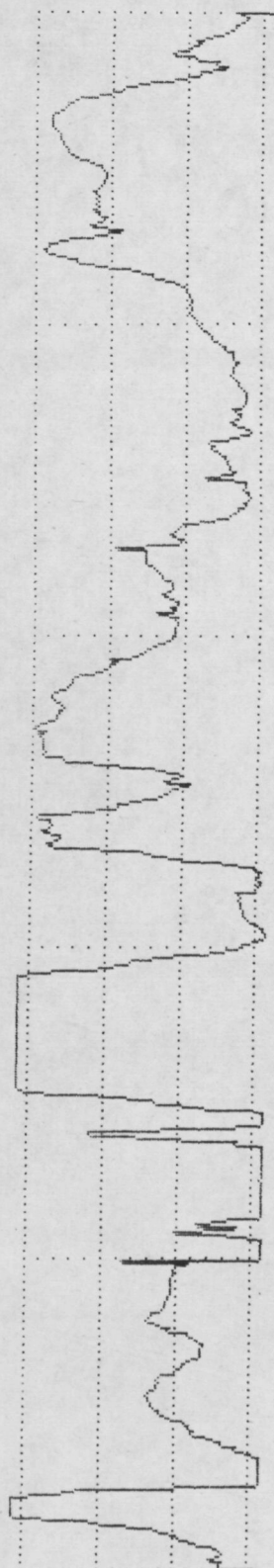
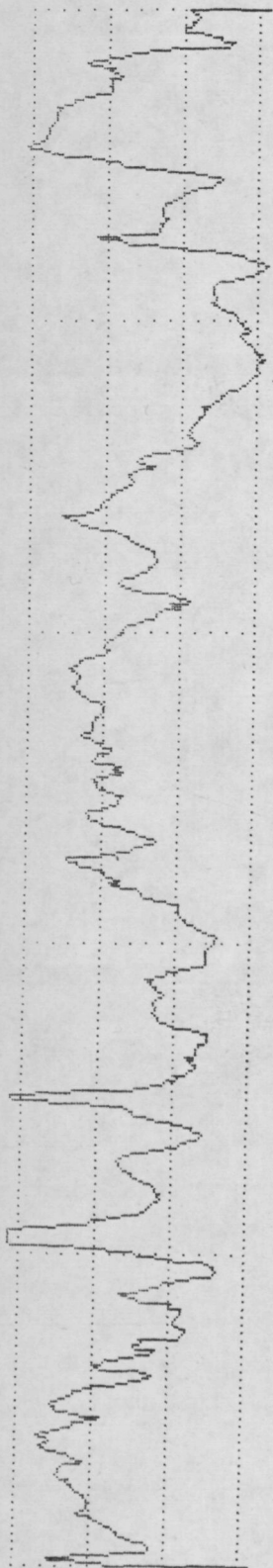
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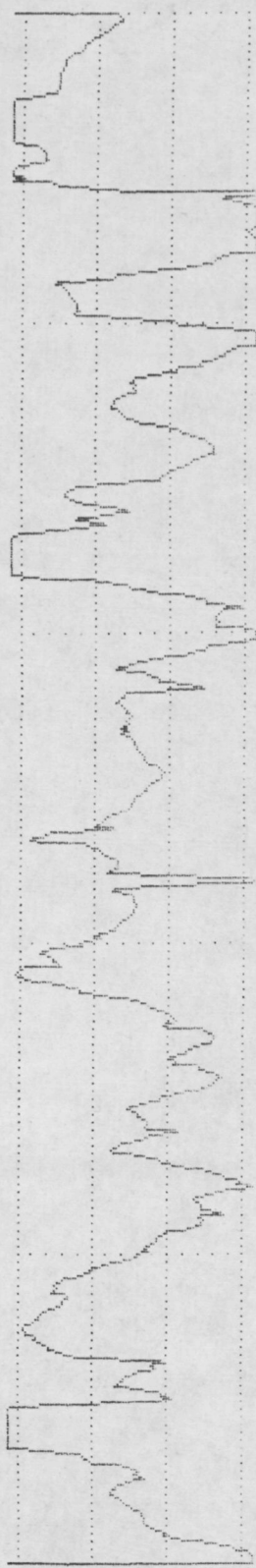
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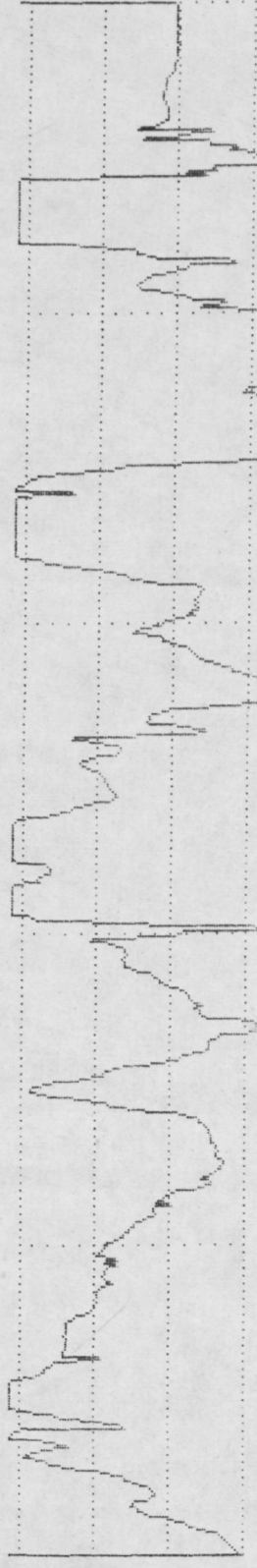
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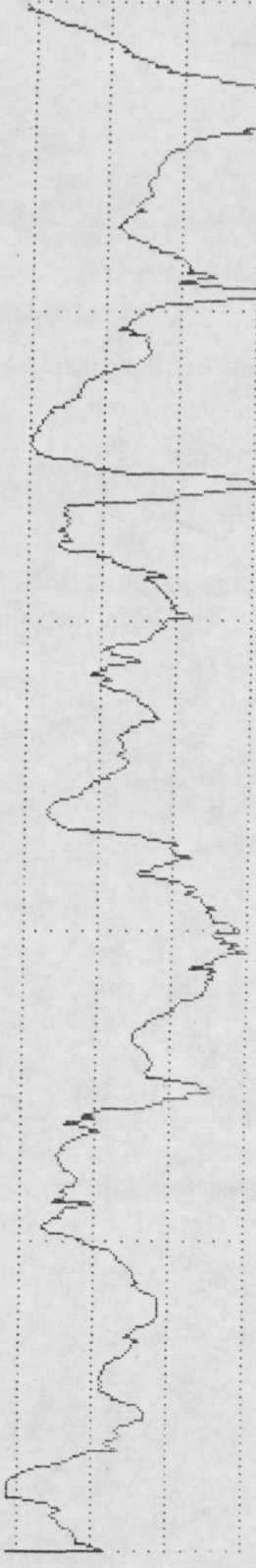




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 PC<1.3> 030 /CM  
 VER 5 UM  
 HOR LC .80 MM



PERTHOMETER MAP  
 DAT. DBJTB11 a  
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 LT 4.8 MM  
 RA 5.93 UM  
 RZ 26.36 UM  
 RMX 33.92 UM  
 RPM 12.28 UM  
 PC<1.3> 017 /CM  
 VER 5 UM  
 HOR LC .80 MM



PERTHOMETER MAP  
 DAT. DBJTB10 c  
 #  
 LT 4.8 MM  
 RA 3.16 UM  
 RZ 15.26 UM  
 RMX 22.72 UM  
 RPM 7.80 UM  
 PC<1.3> 020 /CM  
 VER 5 UM  
 HOR LC .80 MM



PERTHOMETER MAP  
 DAT. DBJTB10 b  
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 LT 4.8 MM  
 RA 5.60 UM  
 RZ 21.69 UM  
 RMX 49.60 UM  
 RPM 12.09 UM  
 PC<1.3> 022 /CM  
 VER 5 UM  
 HOR LC .80 MM

PERTHOMETER M4P  
 DAT.  
 OBJ.VIB11 c  
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 LT 4.8 MM  
 RA 4.24 UM  
 RZ 24.44 UM  
 RMAX 37.44 UM  
 RPM 11.00 UM  
 PC<1.3> 030 /CM

PERTHOMETER M4P  
 DAT.  
 OBJ.VIB12 a  
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 LT 4.8 MM  
 RA 6.63 UM  
 RZ 19.71 UM  
 RMAX 26.56 UM  
 RPM 9.24 UM  
 PC<1.3> 020 /CM

PERTHOMETER M4P  
 DAT.  
 OBJ.VIB12 b  
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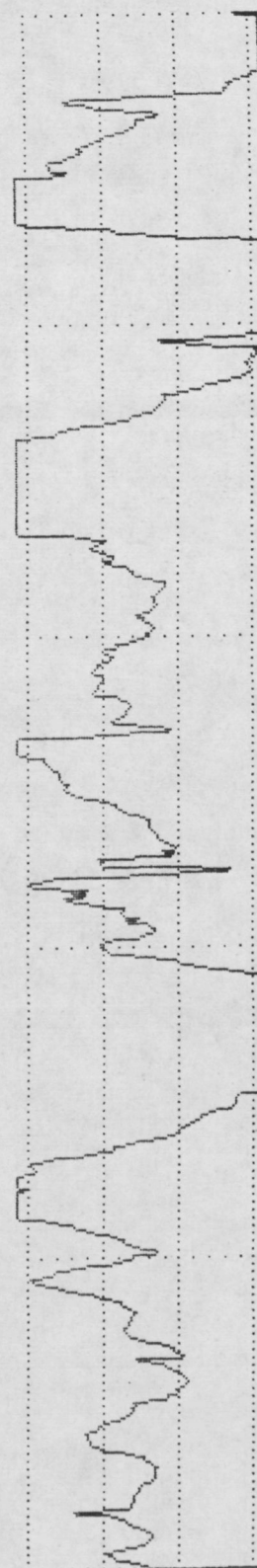
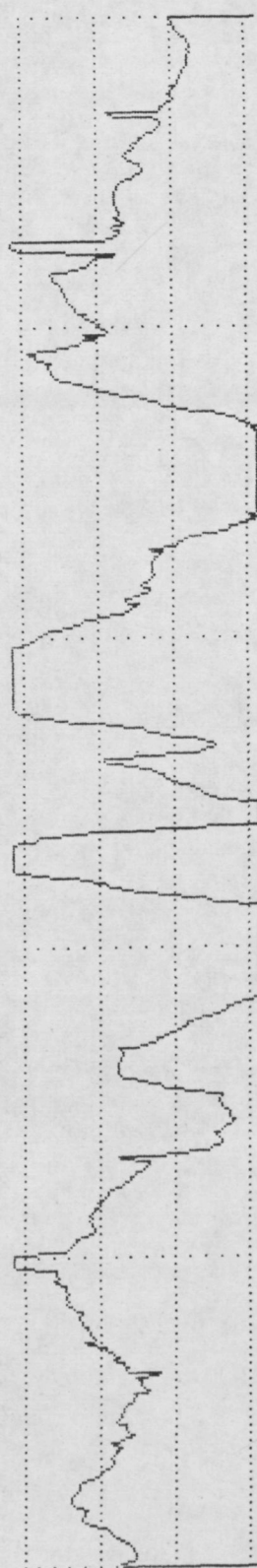
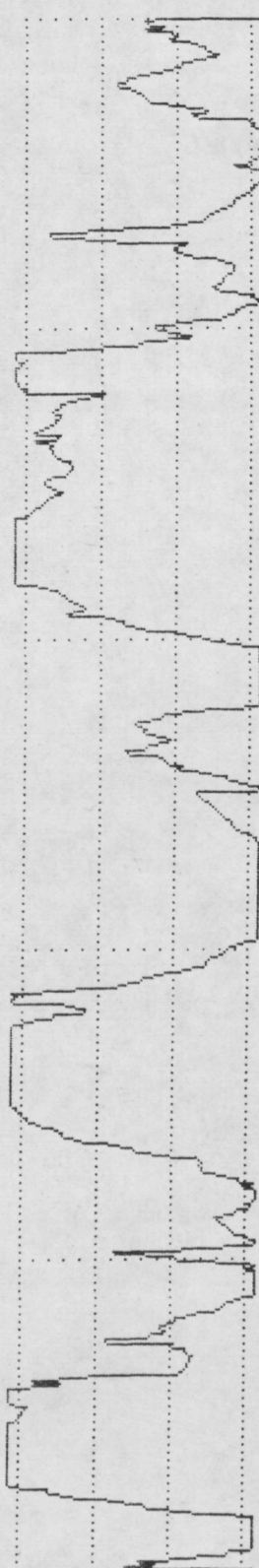
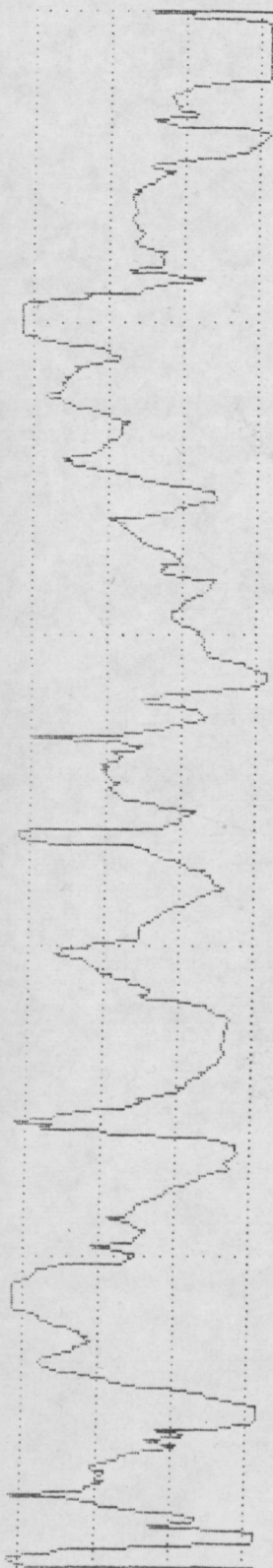
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VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
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VER 5 UM  
 HOR LC .80 MM

VER 5 UM  
 HOR LC .80 MM



PERTHOMETER M4P  
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OBJ.VIB 13 a  
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PC<1.3> 032 /CM

PERTHOMETER M4P  
DAT.  
OBJ.VIB 13 b  
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LT 4.8 MM  
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RMAX 21.60 UM  
RPM 8.99 UM  
PC<1.3> 020 /CM

PERTHOMETER M4P  
DAT.  
OBJ.VIB 13 C  
#  
LT 4.8 MM  
RA 4.40 UM  
RZ 22.01 UM  
RMAX 34.24 UM  
RPM 12.28 UM  
PC<1.3> 025 /CM

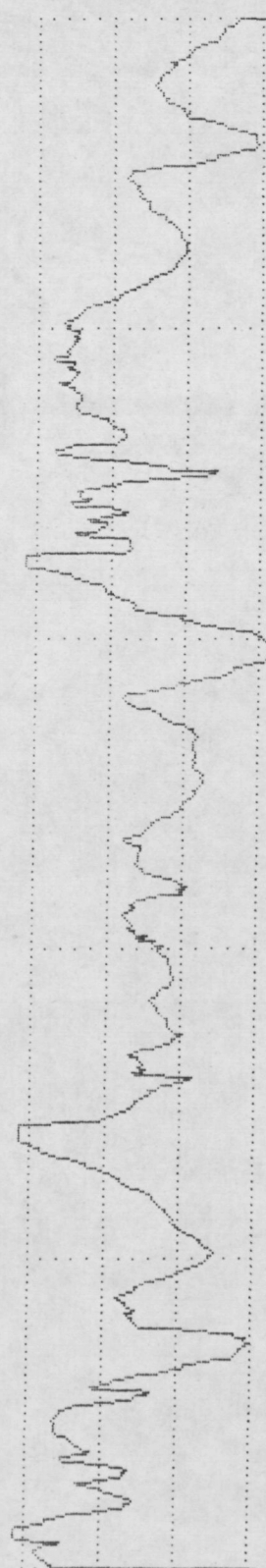
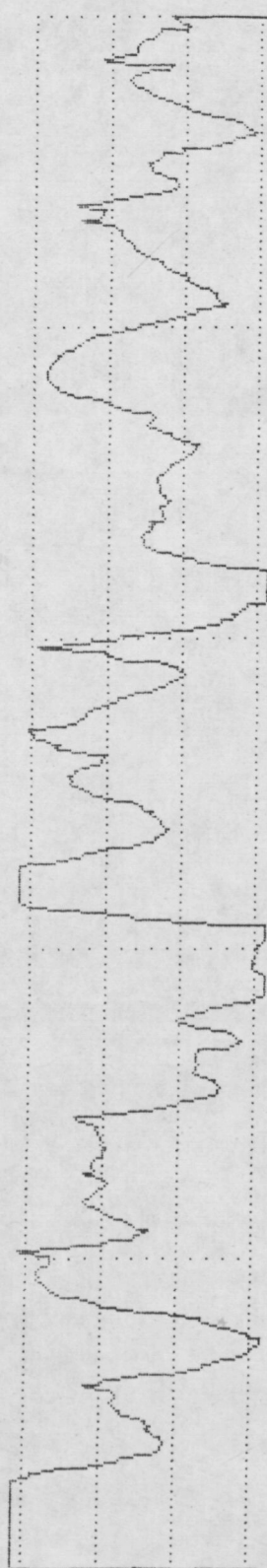
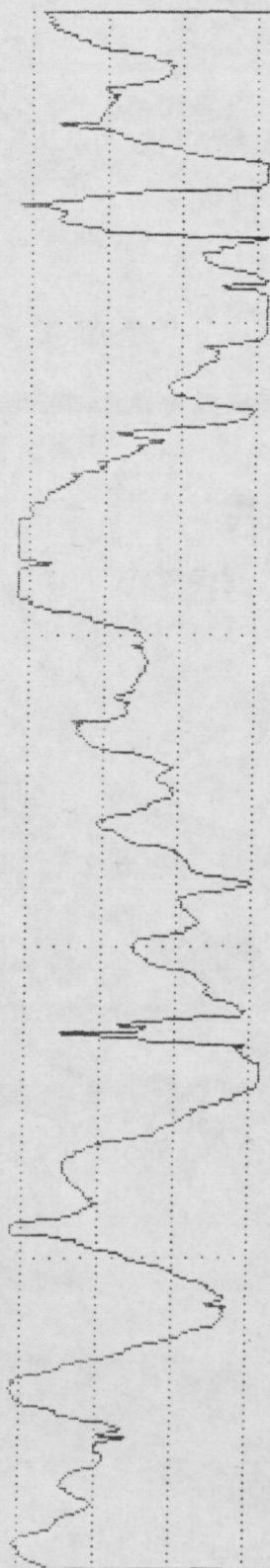
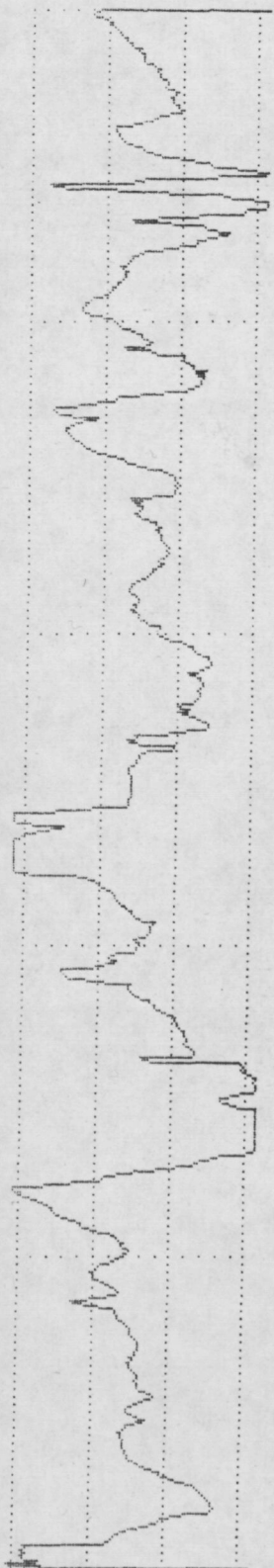
PERTHOMETER M4P  
DAT.  
OBJ.VIB 14 a  
#  
LT 4.8 MM  
RA 3.10 UM  
RZ 16.12 UM  
RMAX 20.32 UM  
RPM 8.86 UM  
PC<1.3> 027 /CM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM



PERTHOMETER M4P  
DAT.  
OBJ.VIB 14 b  
#  
LT 4.8 MM  
RA 5.11 UM  
RZ 21.31 UM  
RMAX 38.08 UM  
RPM 10.24 UM  
PC<1.3> 022 /CM

PERTHOMETER M4P  
DAT.  
OBJ.VIB 14 c  
#  
LT 4.8 MM  
RA 3.81 UM  
RZ 18.33 UM  
RMAX 23.52 UM  
RPM 8.89 UM  
PC<1.3> 020 /CM

PERTHOMETER M4P  
DAT.  
OBJ.VIB 15 a  
#  
LT 4.8 MM  
RA 5.22 UM  
RZ 22.40 UM  
RMAX 31.68 UM  
RPM 10.43 UM  
PC<1.3> 027 /CM

PERTHOMETER M4P  
DAT.  
OBJ.VIB 15 b  
#  
LT 4.8 MM  
RA 7.14 UM  
RZ 33.47 UM  
RMAX 49.92 UM  
RPM 17.28 UM  
PC<1.3> 020 /CM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

VER 5 UM  
HOR LC .80 MM

