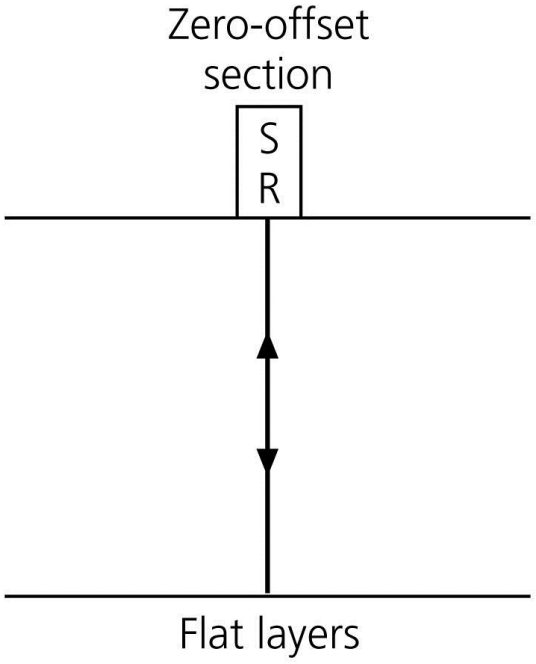
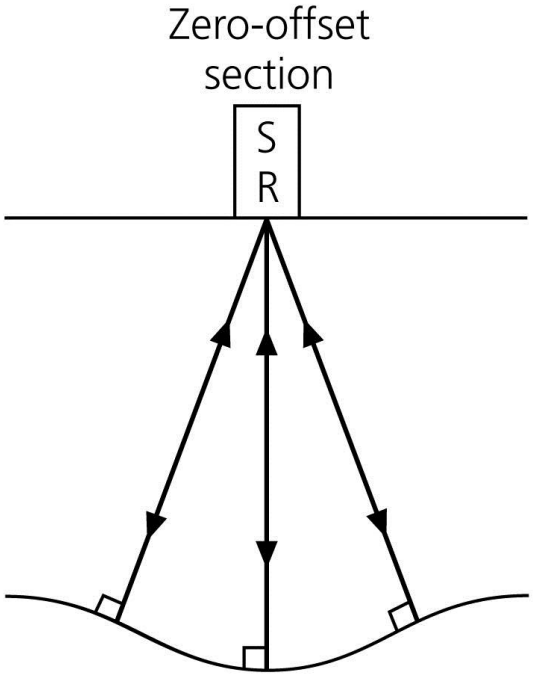
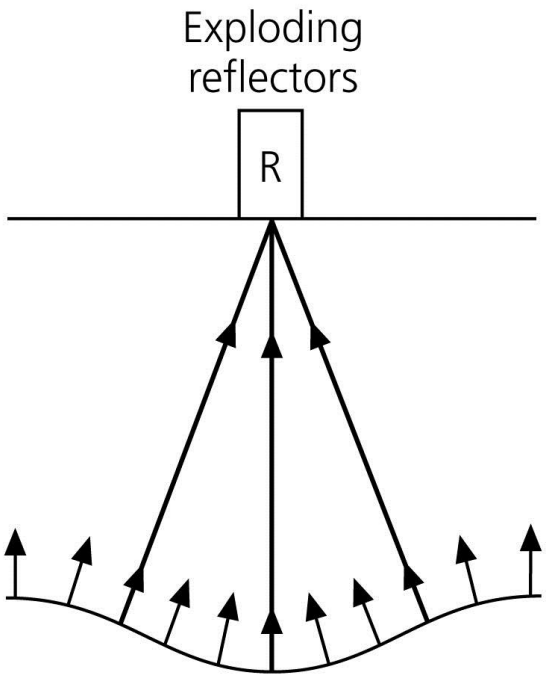
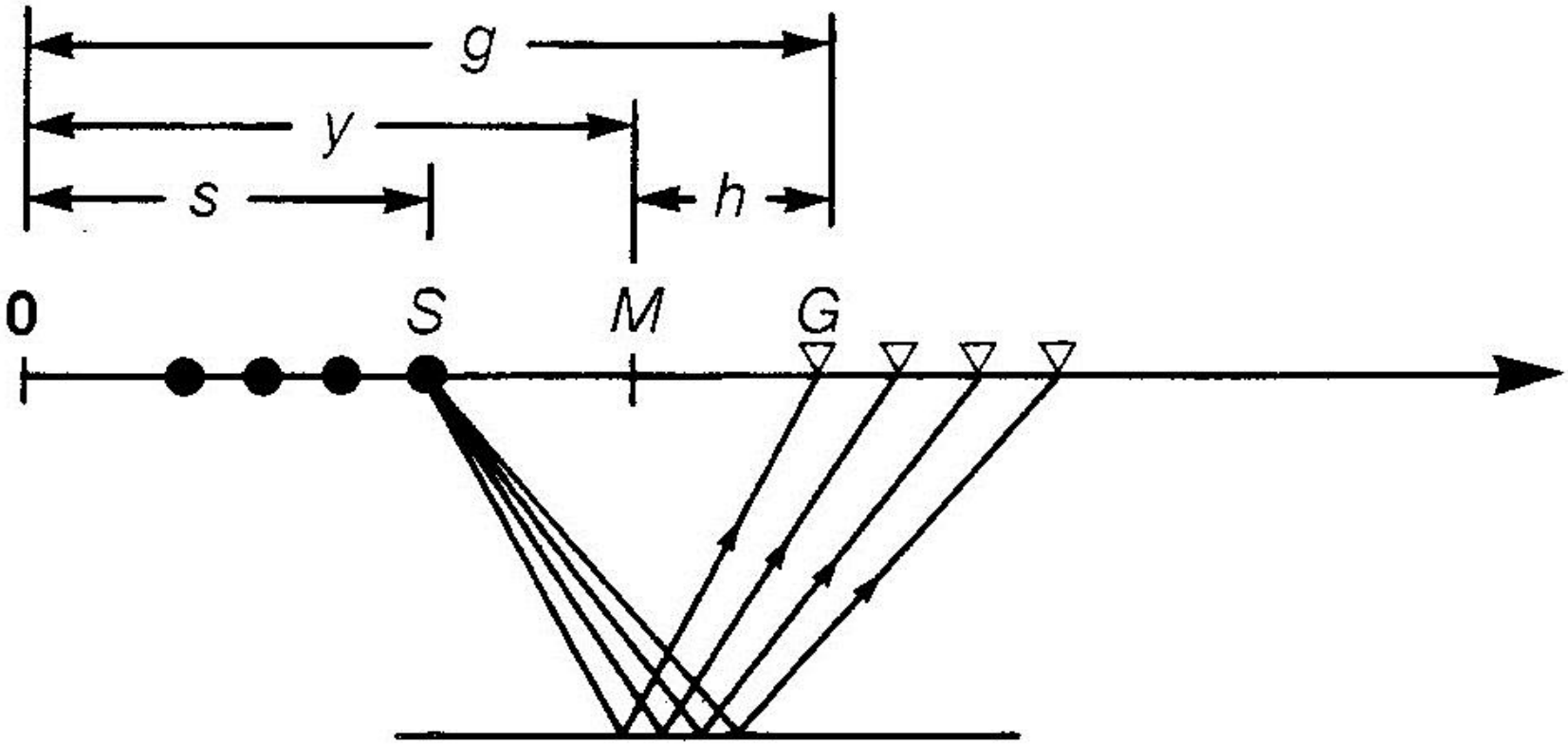
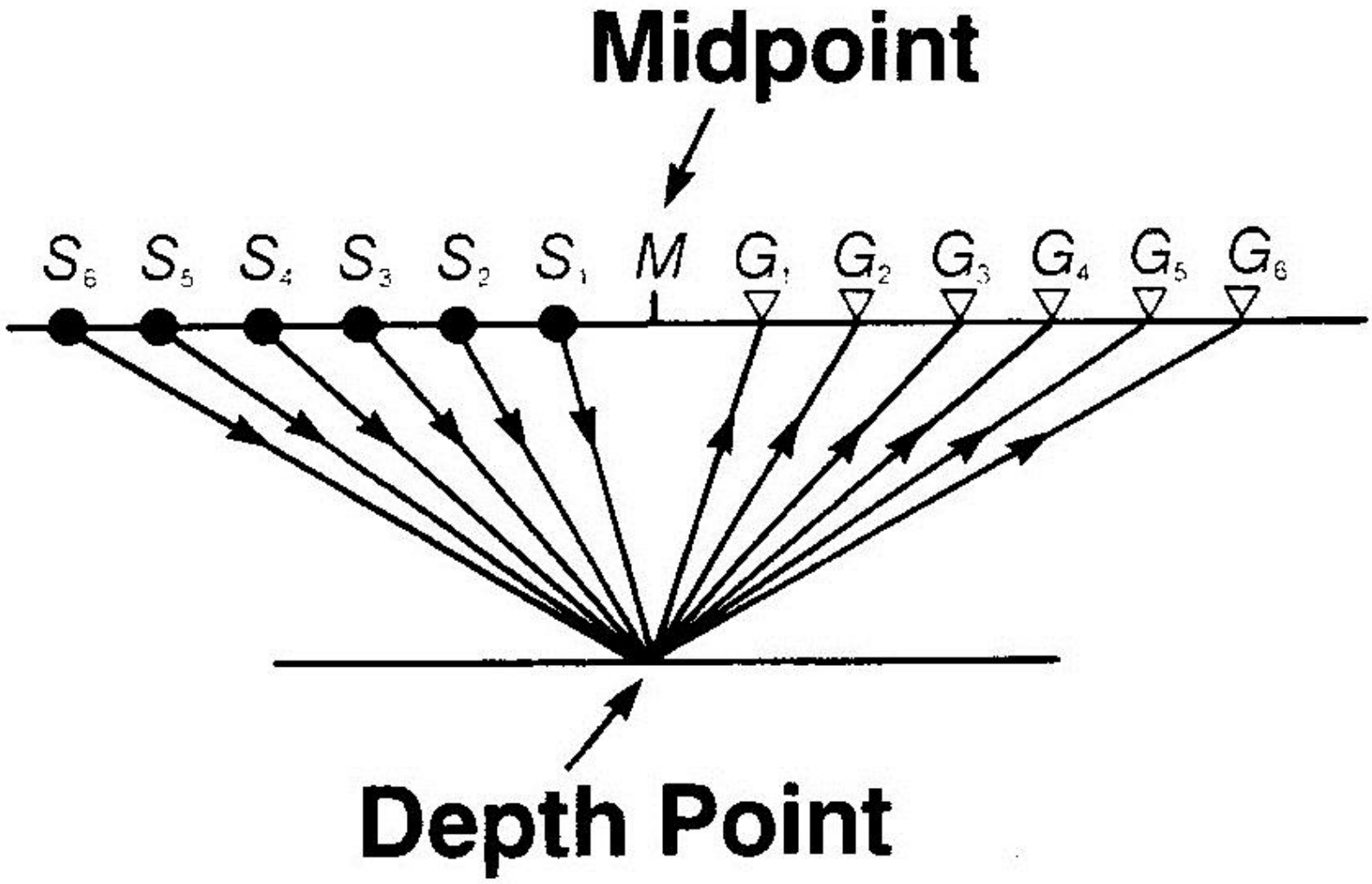
# GEOMETRY

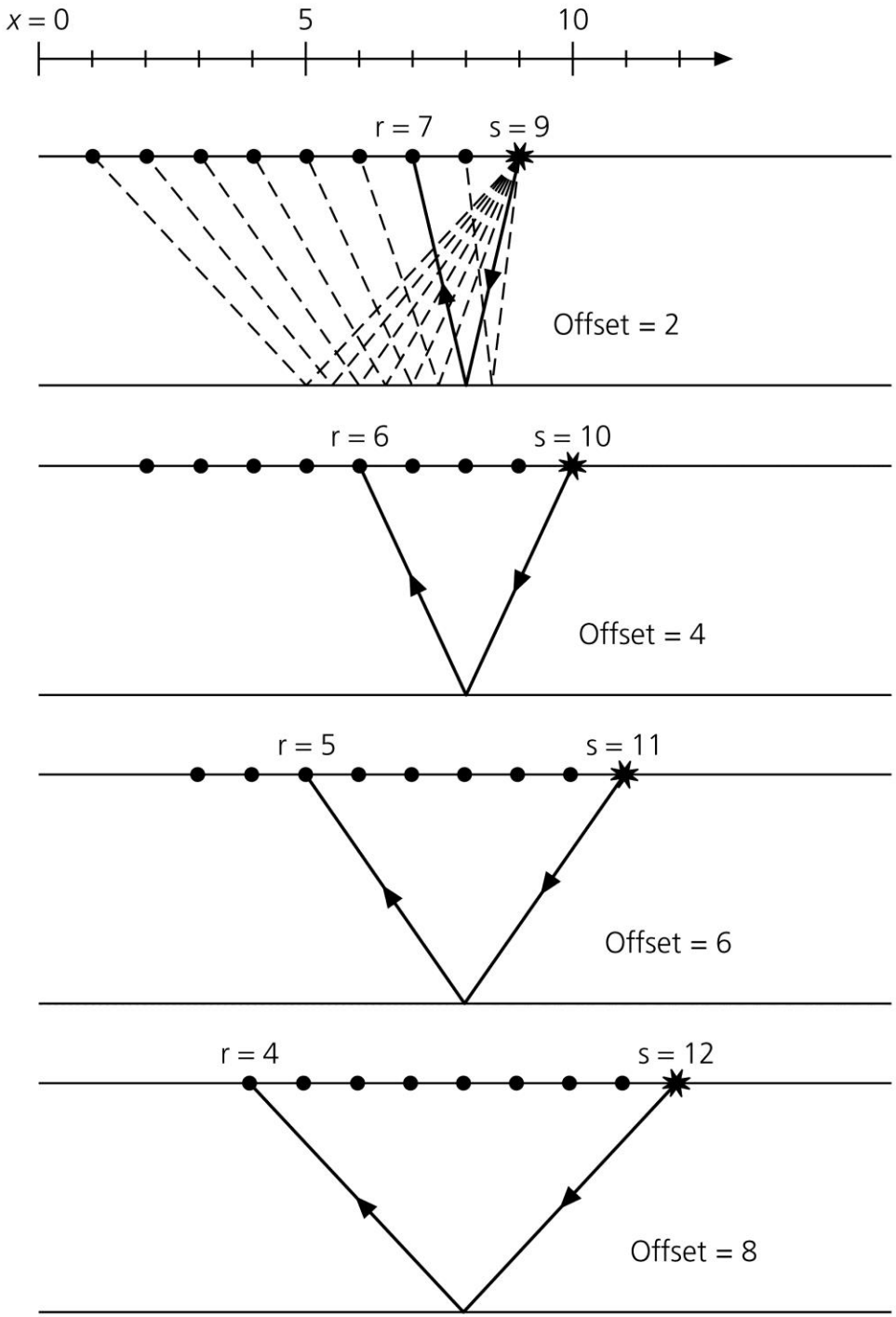

Zero-offset
section
S
R
Flat layers


Zero-offset
section
S
R

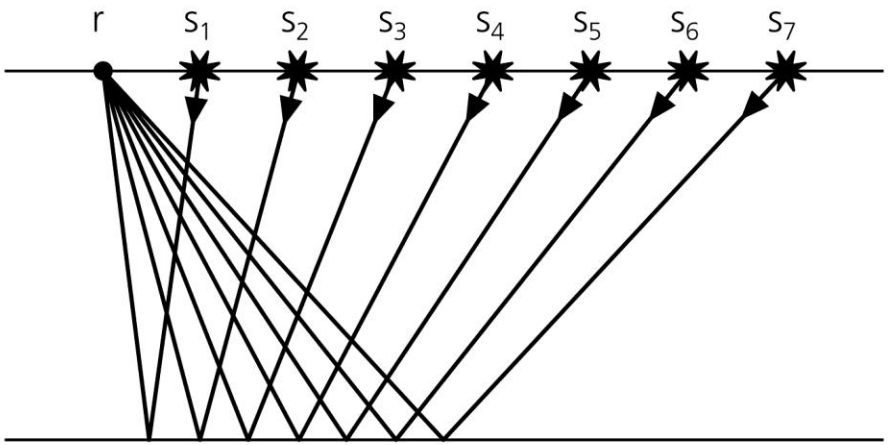

Exploding
reflectors
R


g
y
s
h
0
S
M
G

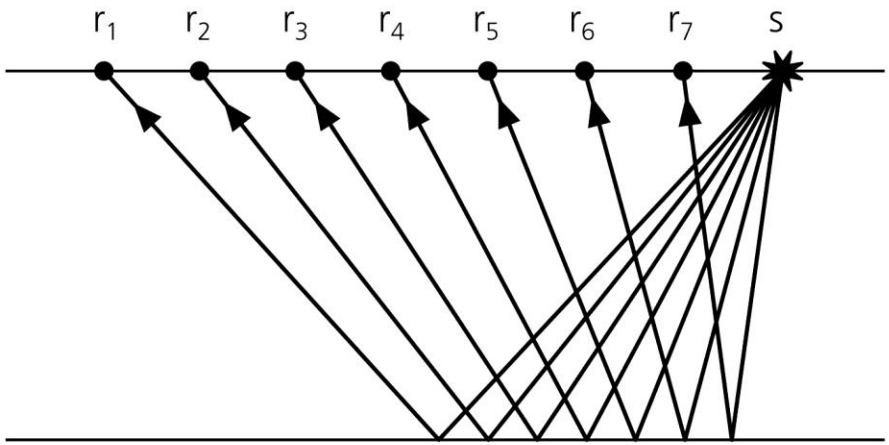

Midpoint
S6 S5 S4 S3 S2 S1 M G1 G2 G3 G4 G5 G6
Depth Point


x = 0
5
10
r = 7
s = 9
Offset = 2
r = 6
s = 10
Offset = 4
r = 5
s = 11
Offset = 6
r = 4
s = 12
Offset = 8

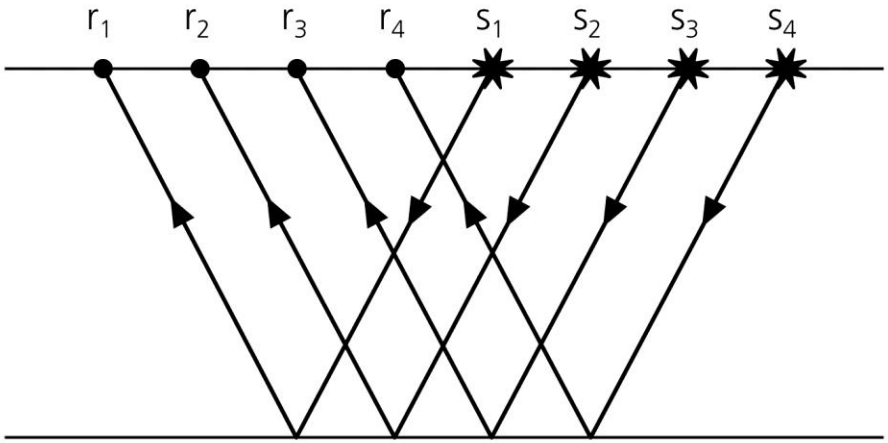
Common receiver gather



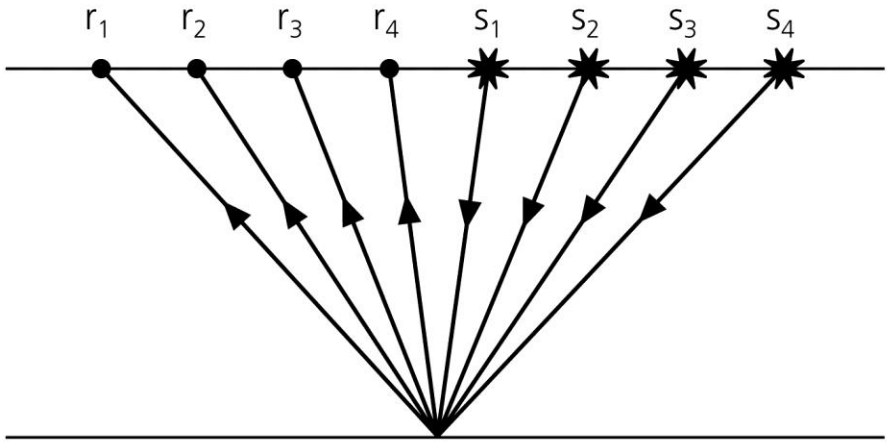

Common source gather

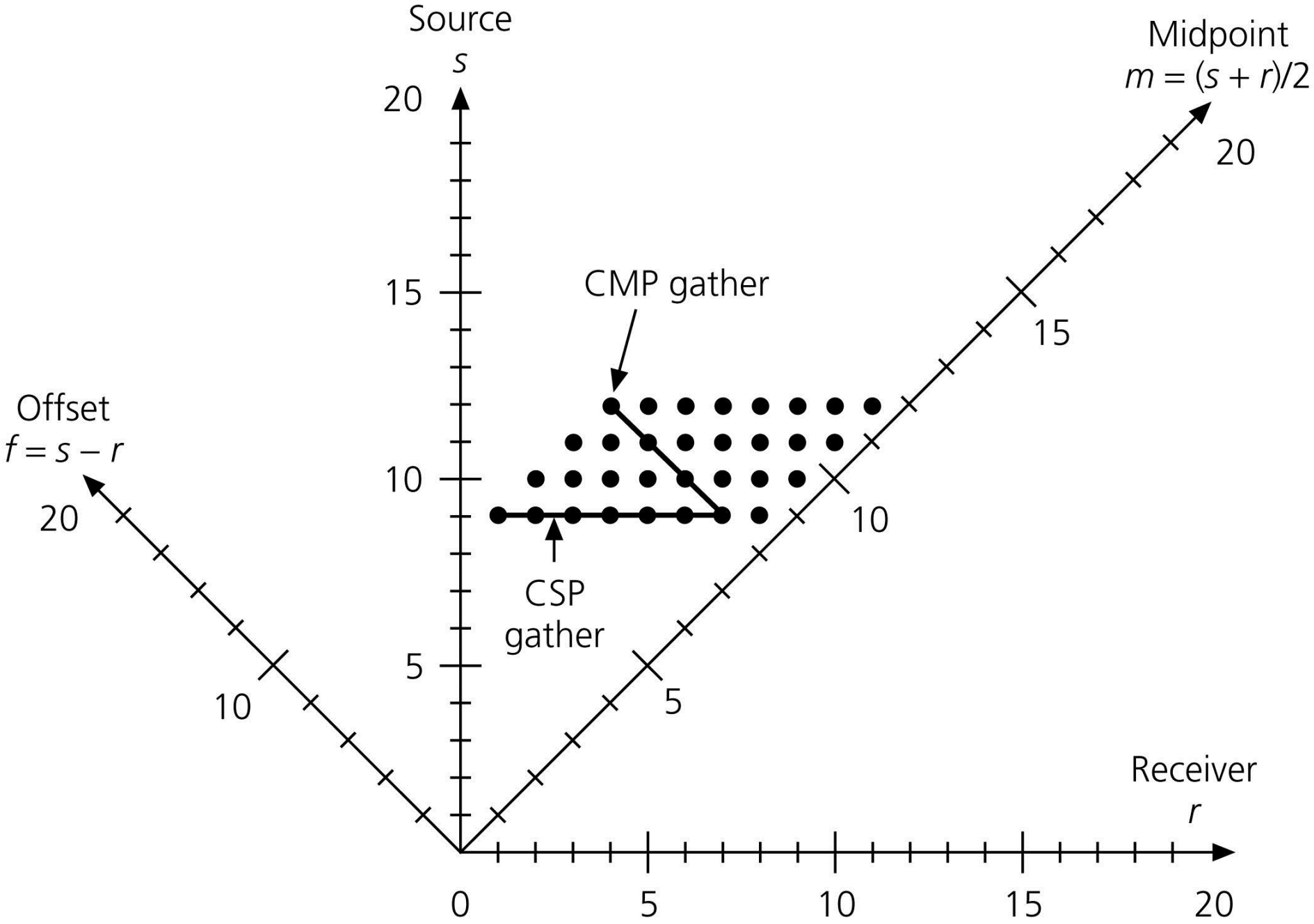



Common offset gather




Common midpoint gather




Source
s
20
15
10
5
Midpoint
m = (s + r)/2
20
15
10
5
CMP gather
Offset
f = s – r
20
10
CSP
gather
Receiver
r
0
5
10
15
20

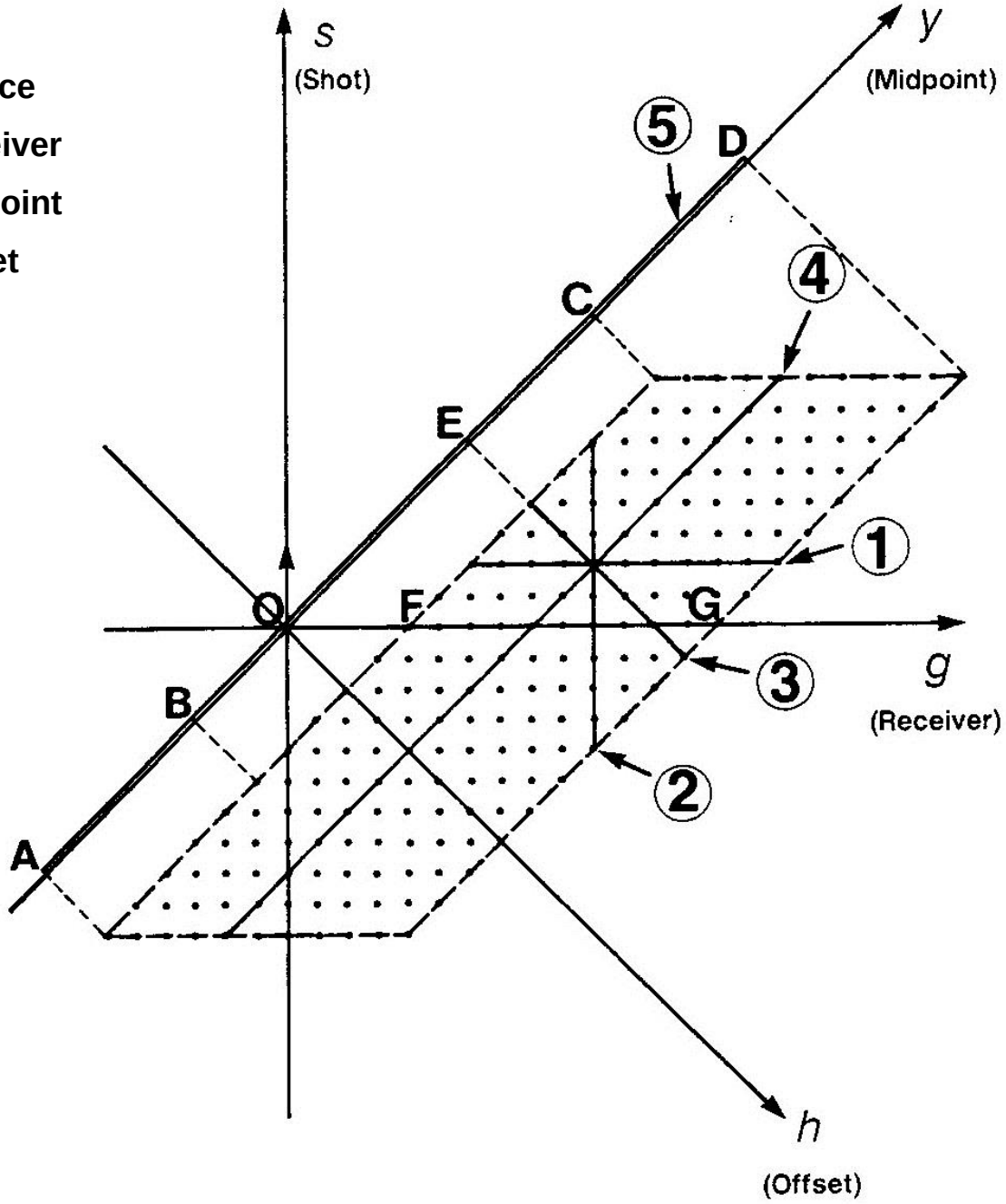
**(1) Common Source**

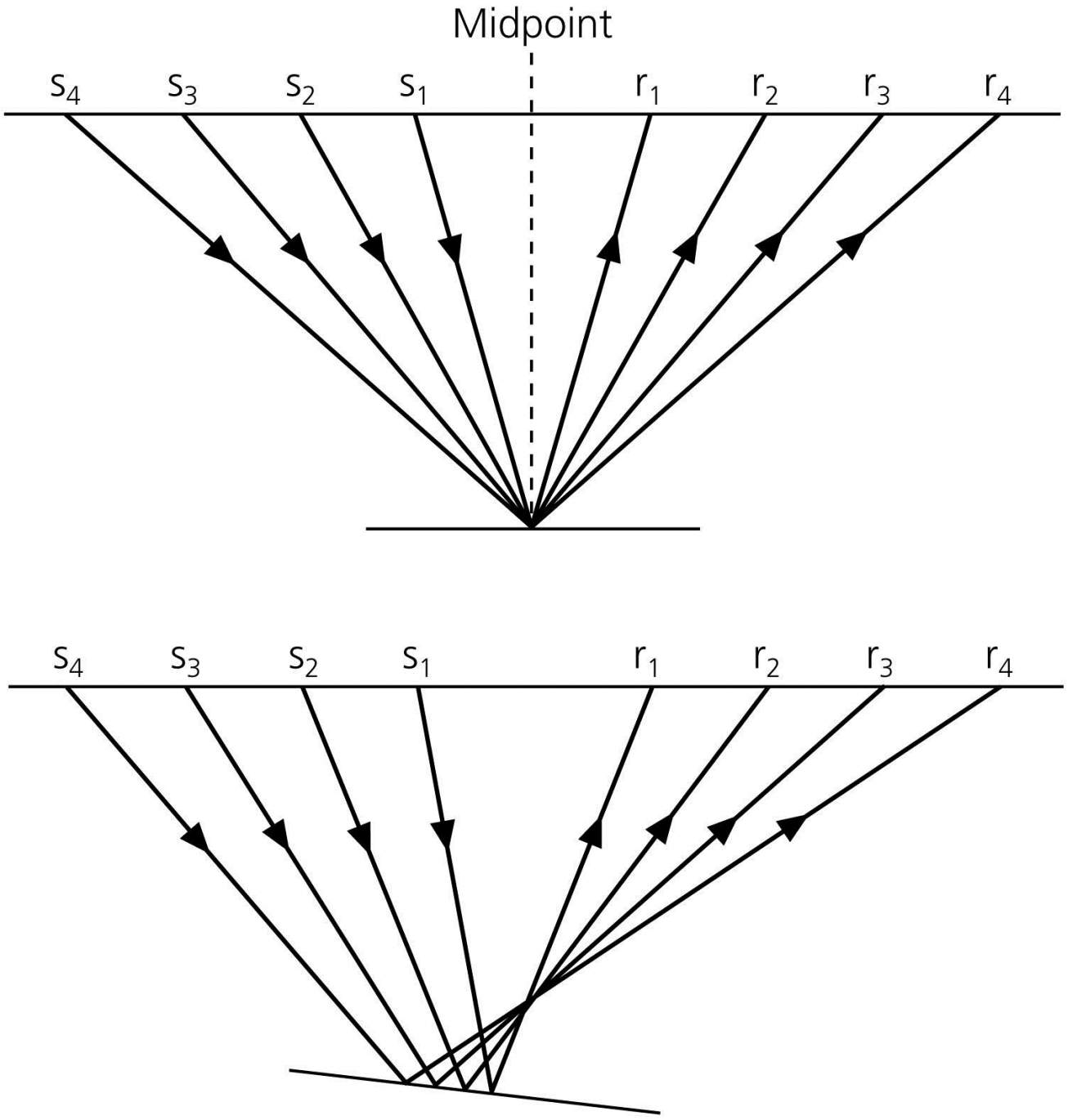
**(2) Common Receiver**

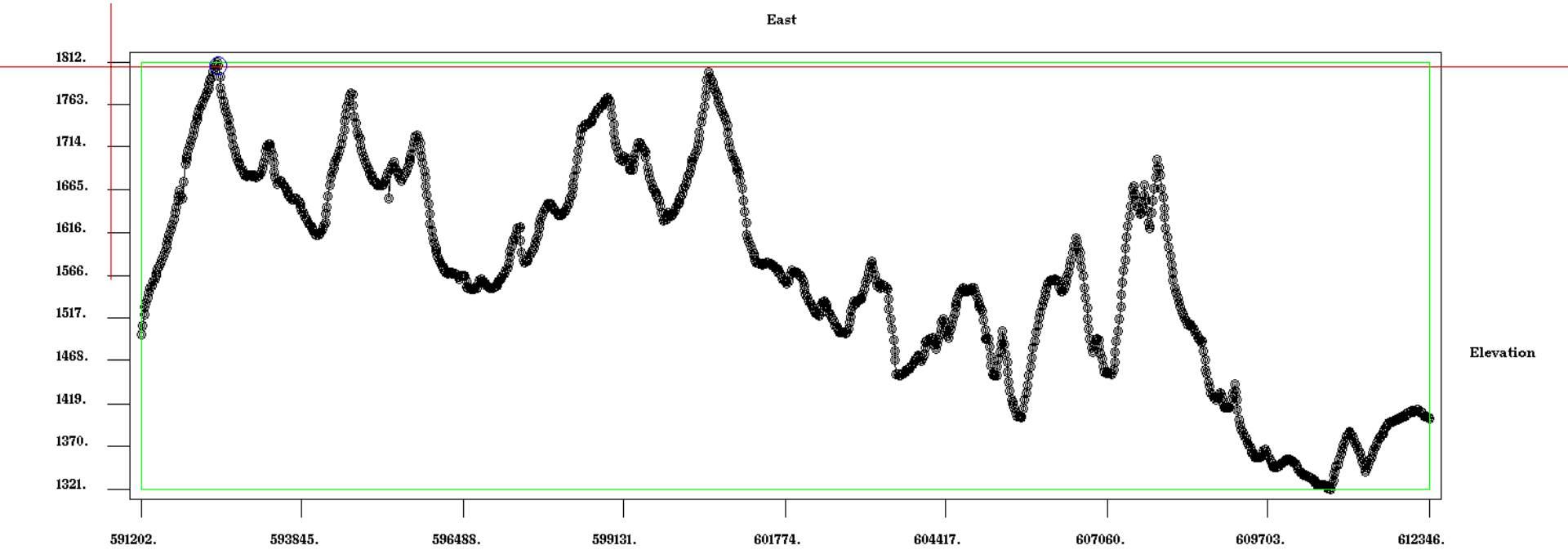
**(3) Common Midpoint**

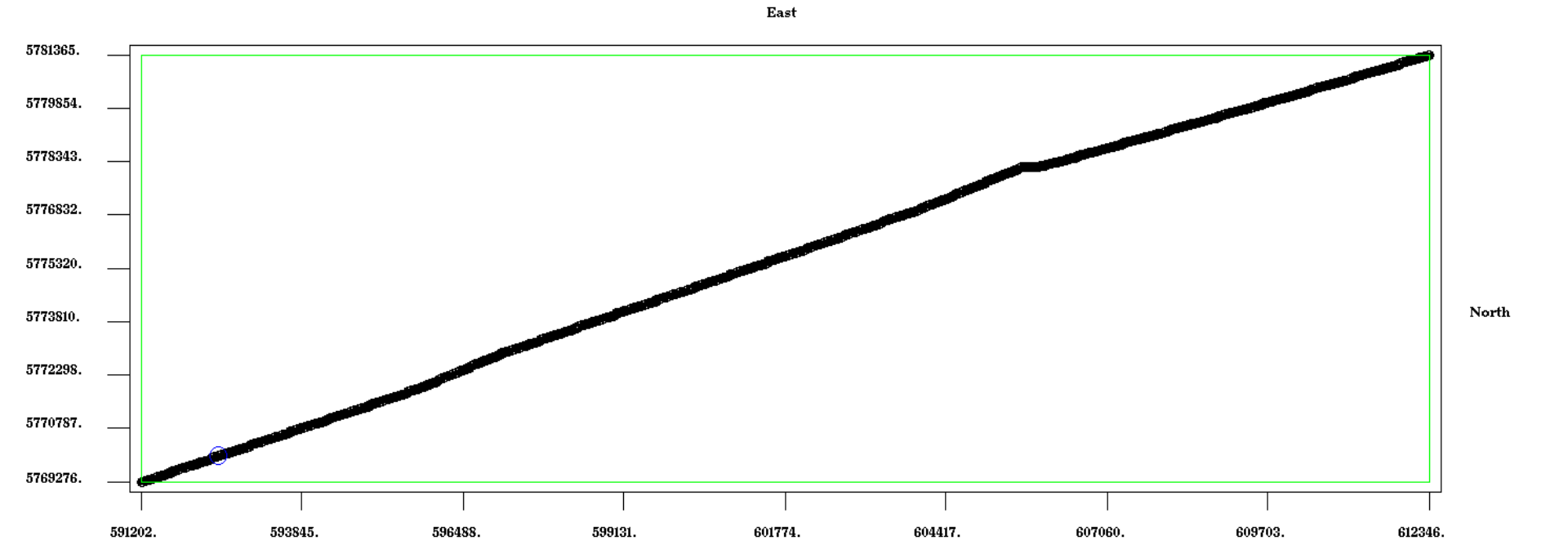
**(4) Common Offset**

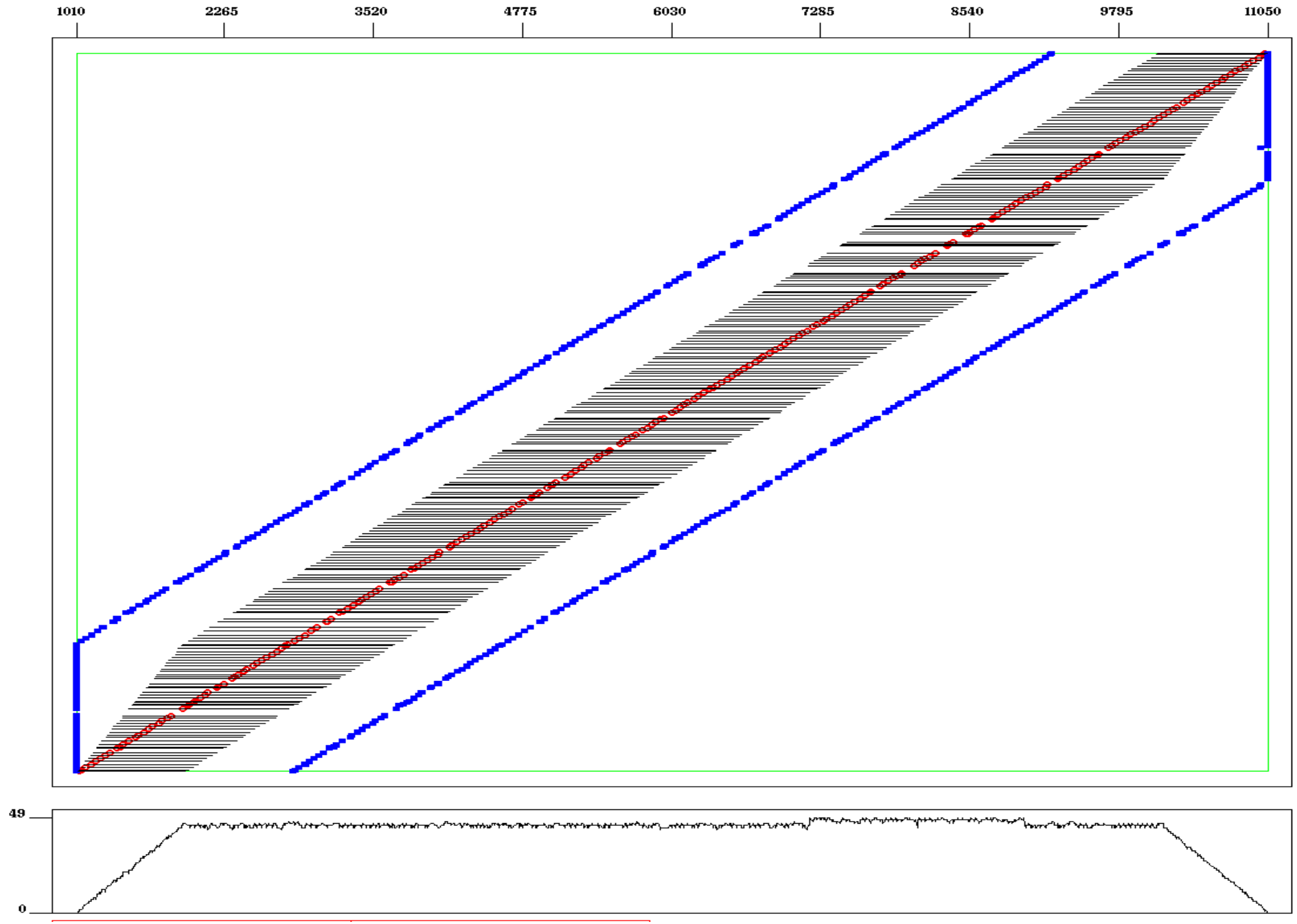
**(5) STACK**

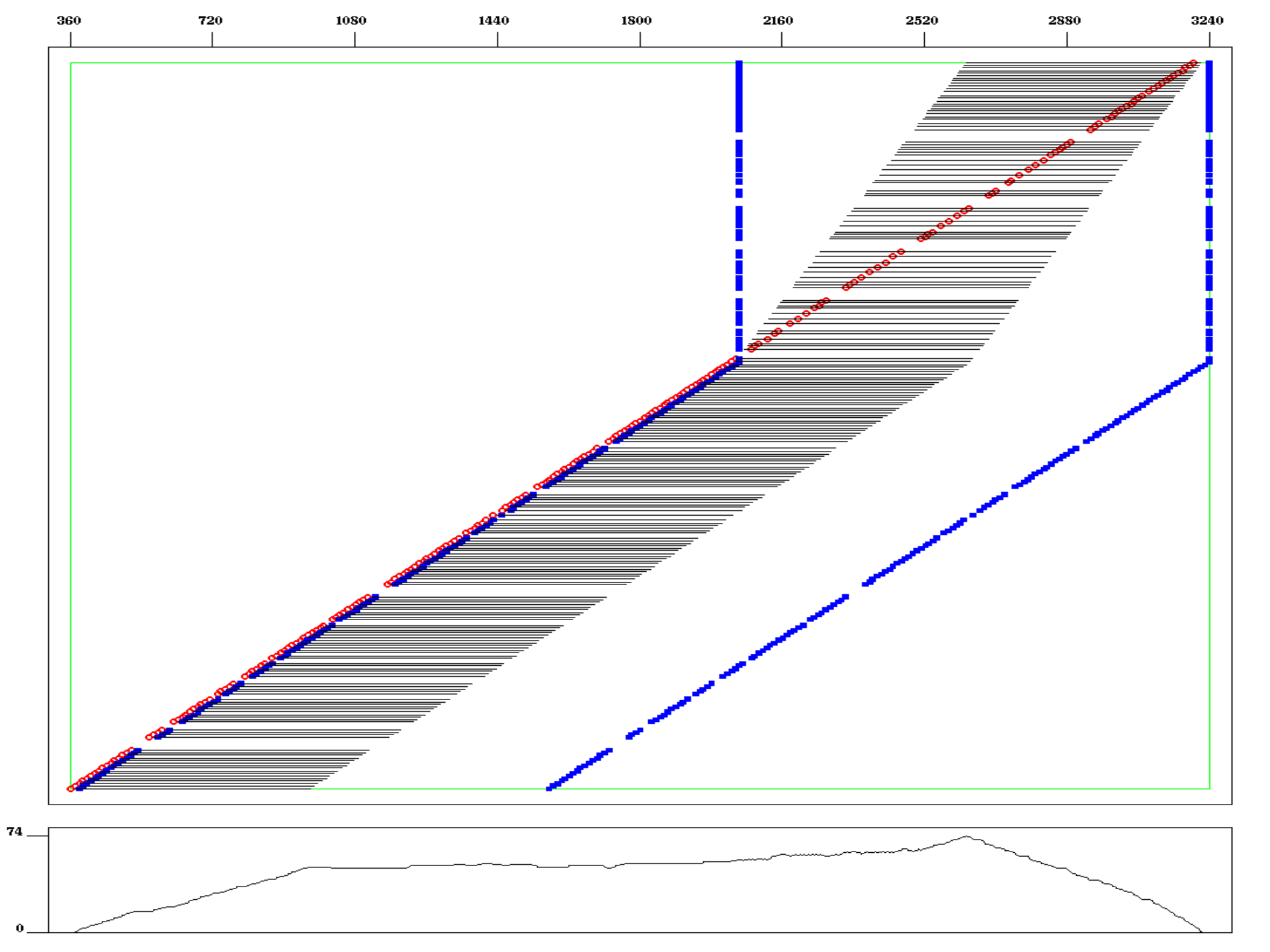


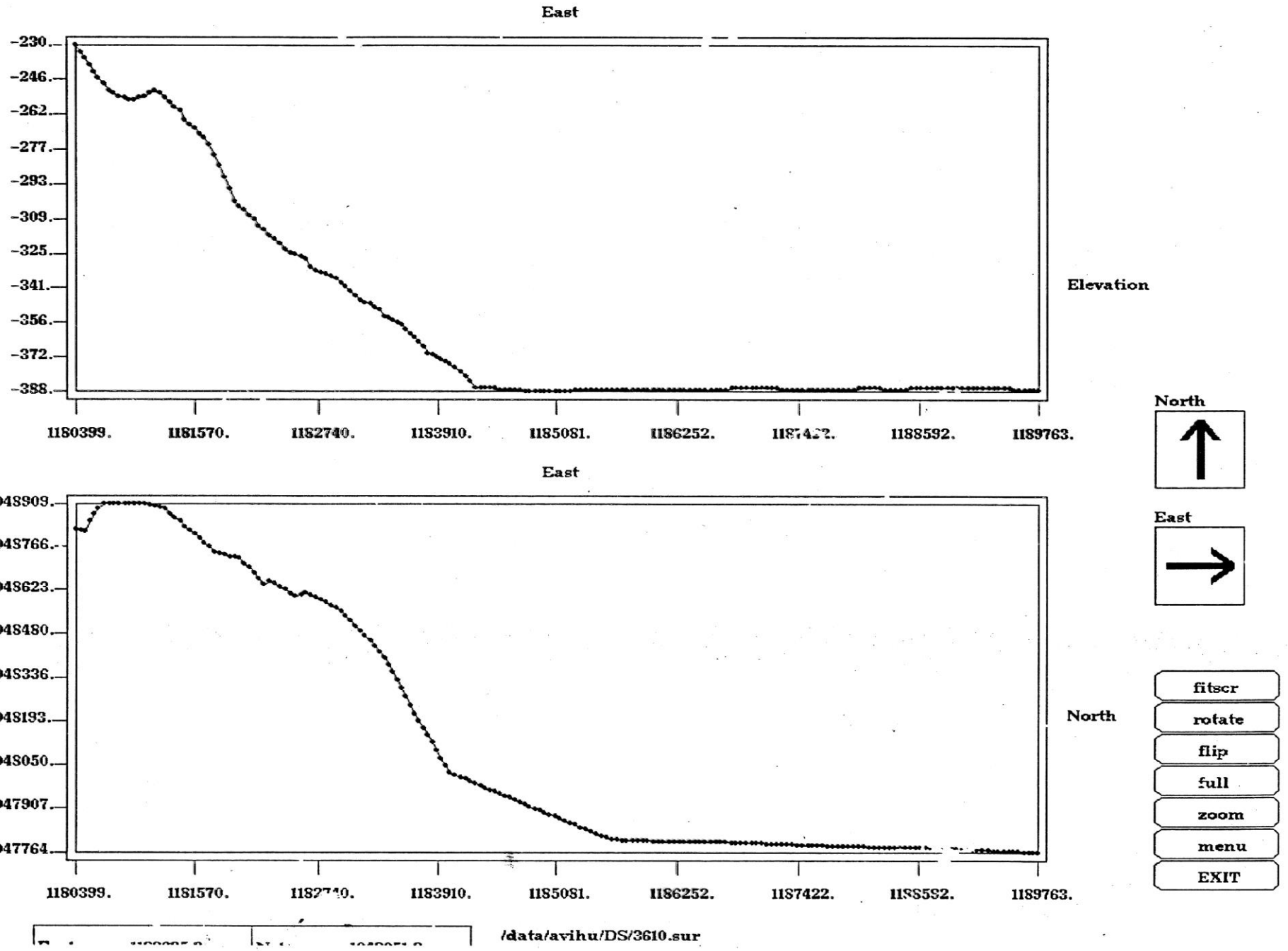

Midpoint
$s_4$
$s_3$
$s_2$
$s_1$
$r_1$
$r_2$
$r_3$
$r_4$
$s_4$
$s_3$
$s_2$
$s_1$
$r_1$
$r_2$
$r_3$
$r_4$

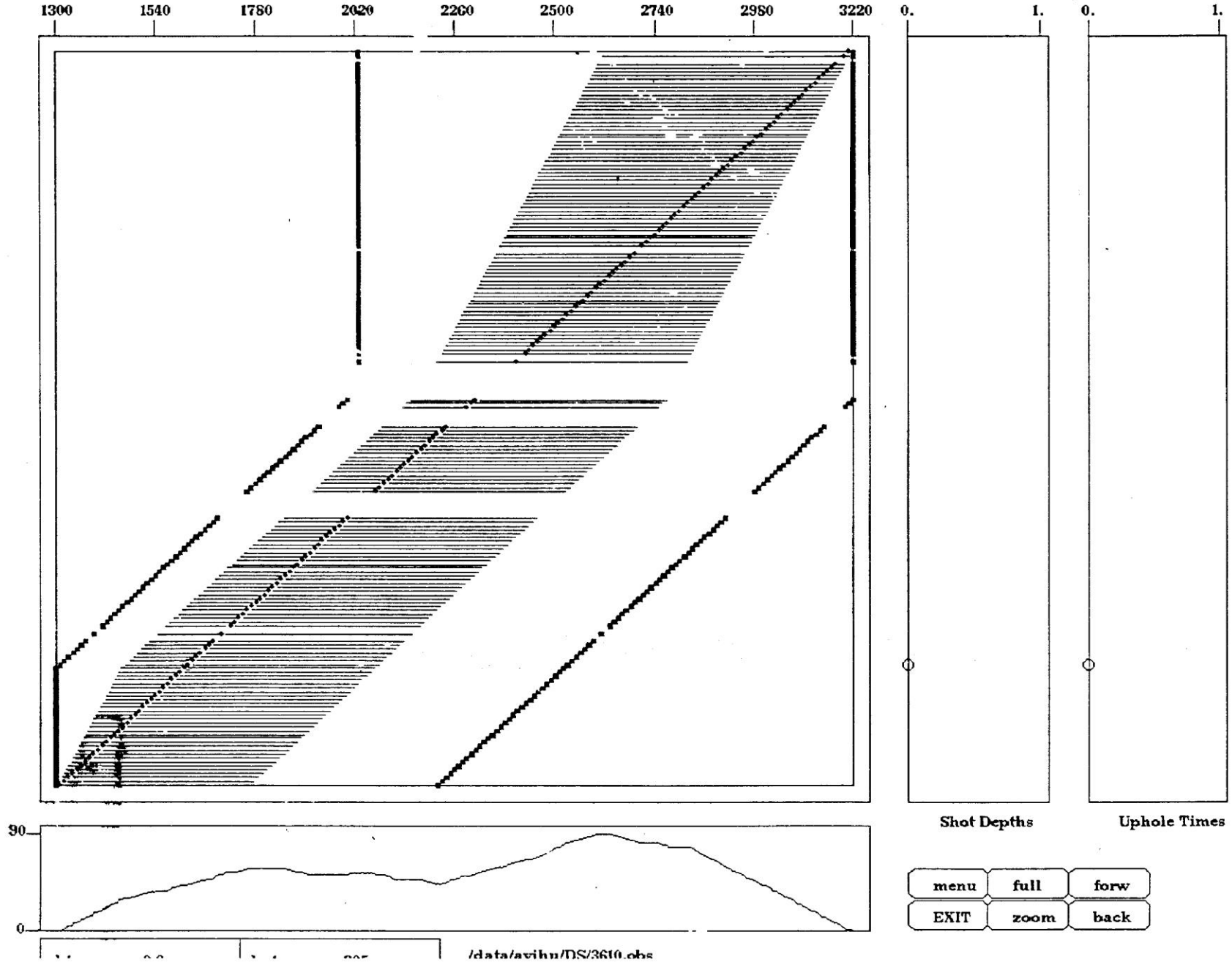

East
1812.
1763.
1714.
1665.
1616.
1566.
1517.
1468.
1419.
1370.
1321.
591202.
593845.
596488.
599131.
601774.
604417.
607060.
609703.
612346.
Elevation

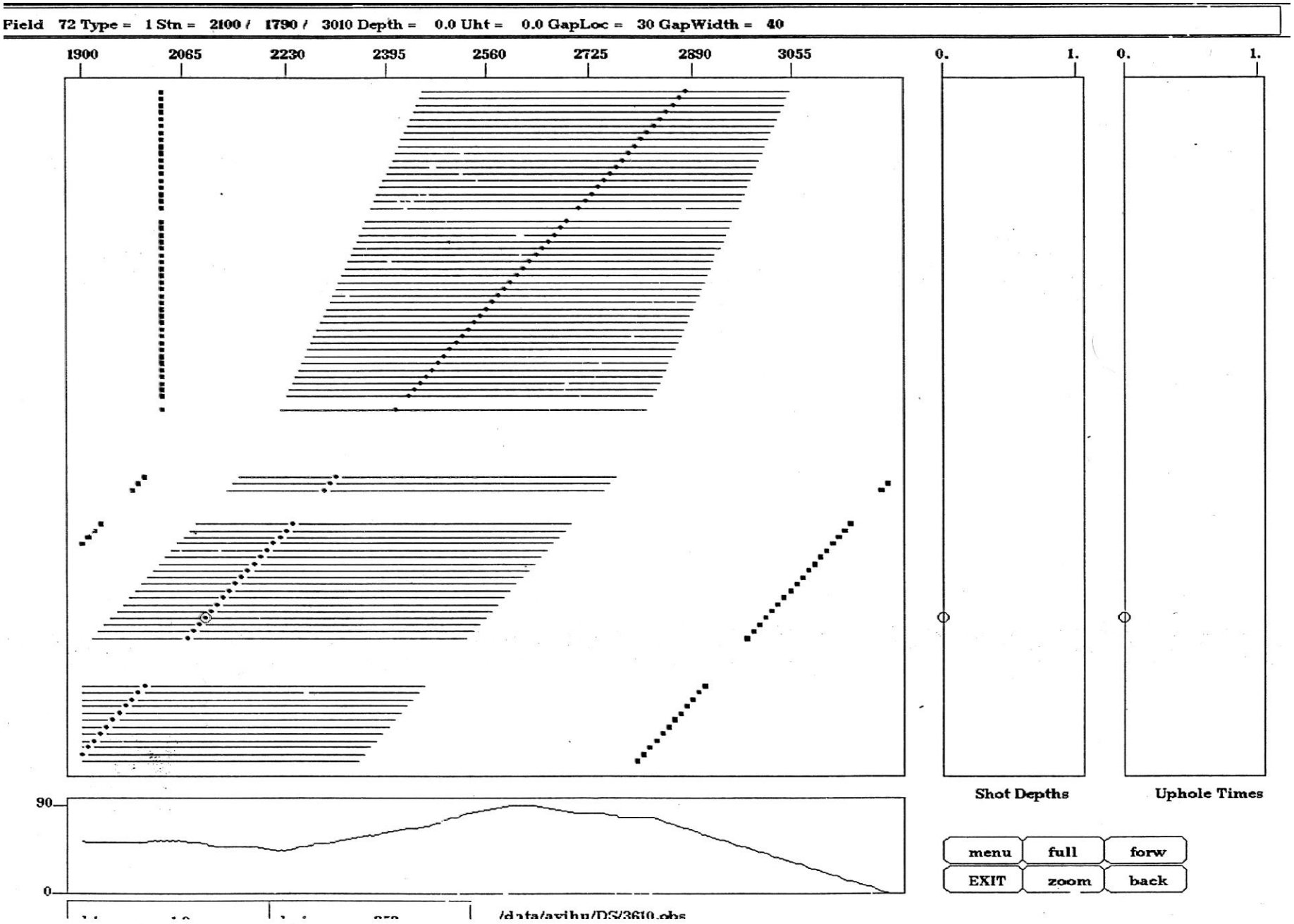

East
5781365.
5779854.
5778343.
5776832.
5775320.
5773810.
5772298.
5770787.
5769276.
591202.
593845.
596488.
599131.
601774.
604417.
607060.
609703.
612346.
North

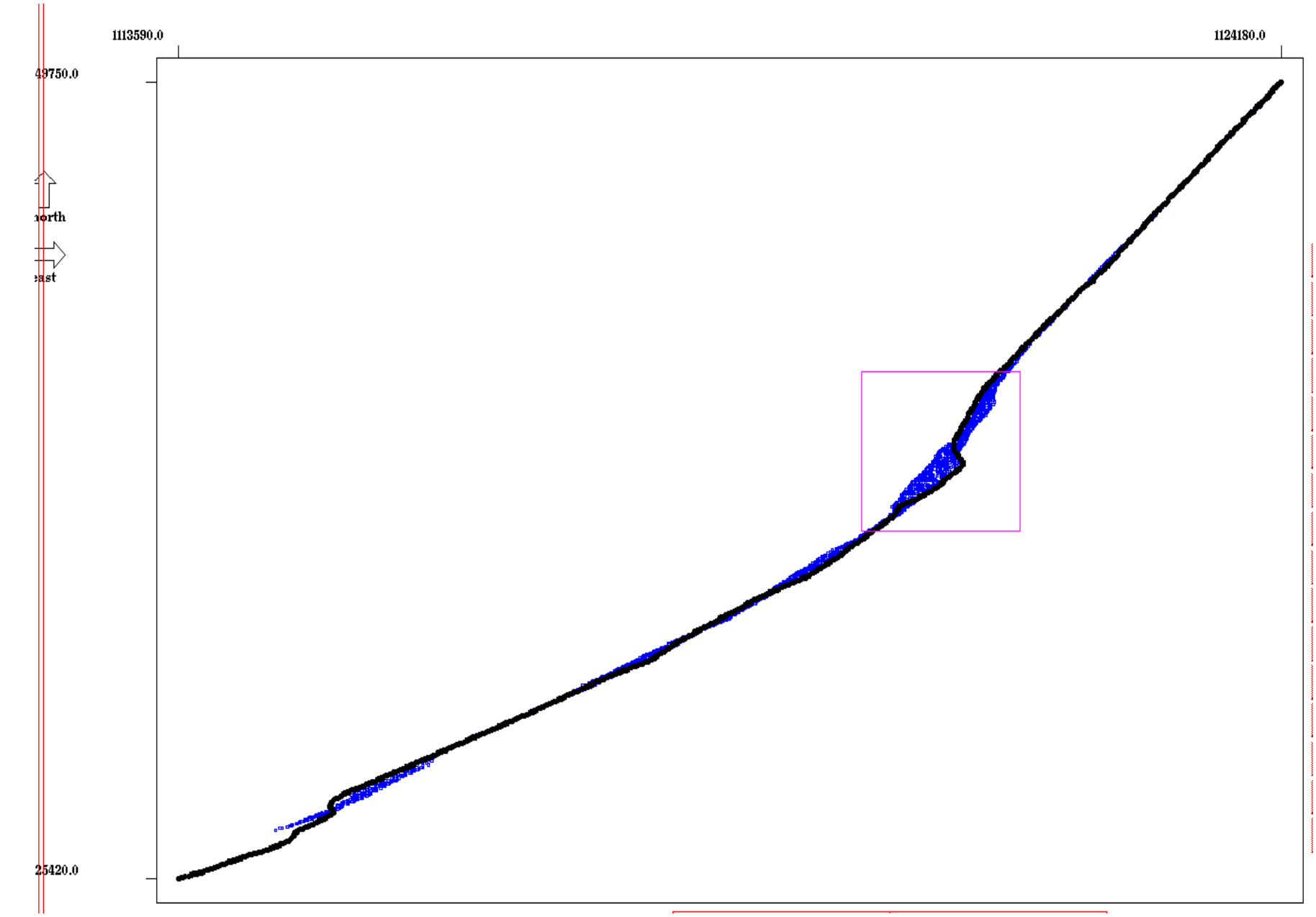

1010
2265
3520
4775
6030
7285
8540
9795
11050
49
0


360
720
1080
1440
1800
2160
2520
2880
3240
74
0


East
-230.
-246.
-262.
-277.
-293.
-309.
-325.
-341.
-356.
-372.
-388.
Elevation
1180399.
1181570.
1182740.
1183910.
1185081.
1186252.
1188592.
1189763.
North
East
1048909.
1048766.
1048623.
1048480.
1048336.
1048193.
1048050.
1047907.
1047764.
North
1180399.
1181570.
1183910.
1185081.
1186252.
1187422.
1189763.
fitscr
rotate
flip
full
zoom
menu
EXIT
/data/avihu/DS/3610.sur


1300
1540
1780
2020
2260
2500
2740
2980
3220
0.
1.
0.
1.
Shot Depths
Uphole Times
90
0
menu
full
forw
EXIT
zoom
back
/data/avihu/DS/3610.obs


Field 72 Type = 1 Stn = 2100 / 1790 / 3010 Depth = 0.0 Uht = 0.0 GapLoc = 30 GapWidth = 40
1900
2065
2230
2395
2560
2725
2890
3055
0.
1.
0.
1.
Shot Depths
Uphole Times
90
0
menu
full
forw
EXIT
zoom
back
/data/avihu/DS/3610.obs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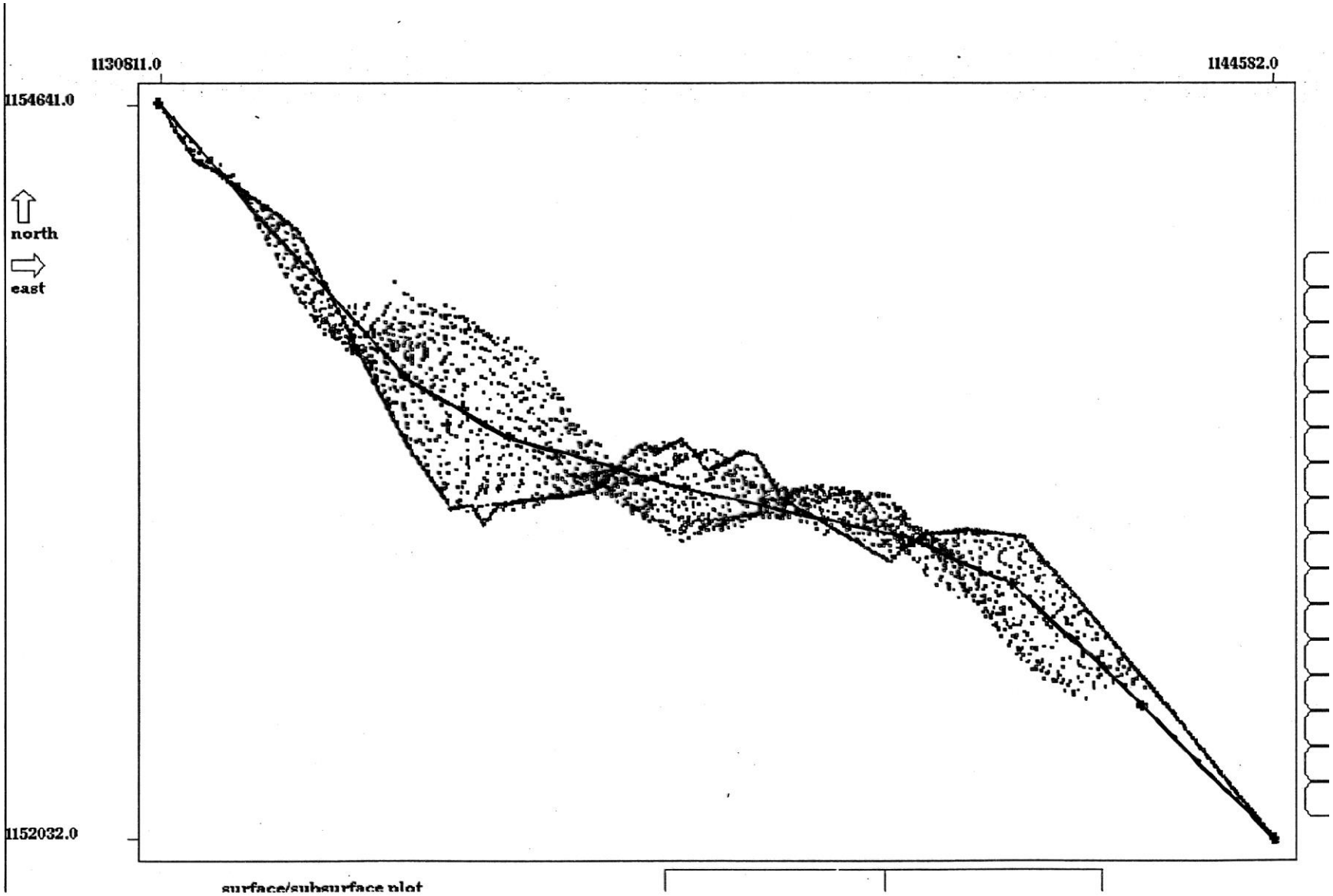
1124180.0
49750.0
north
east
25420.0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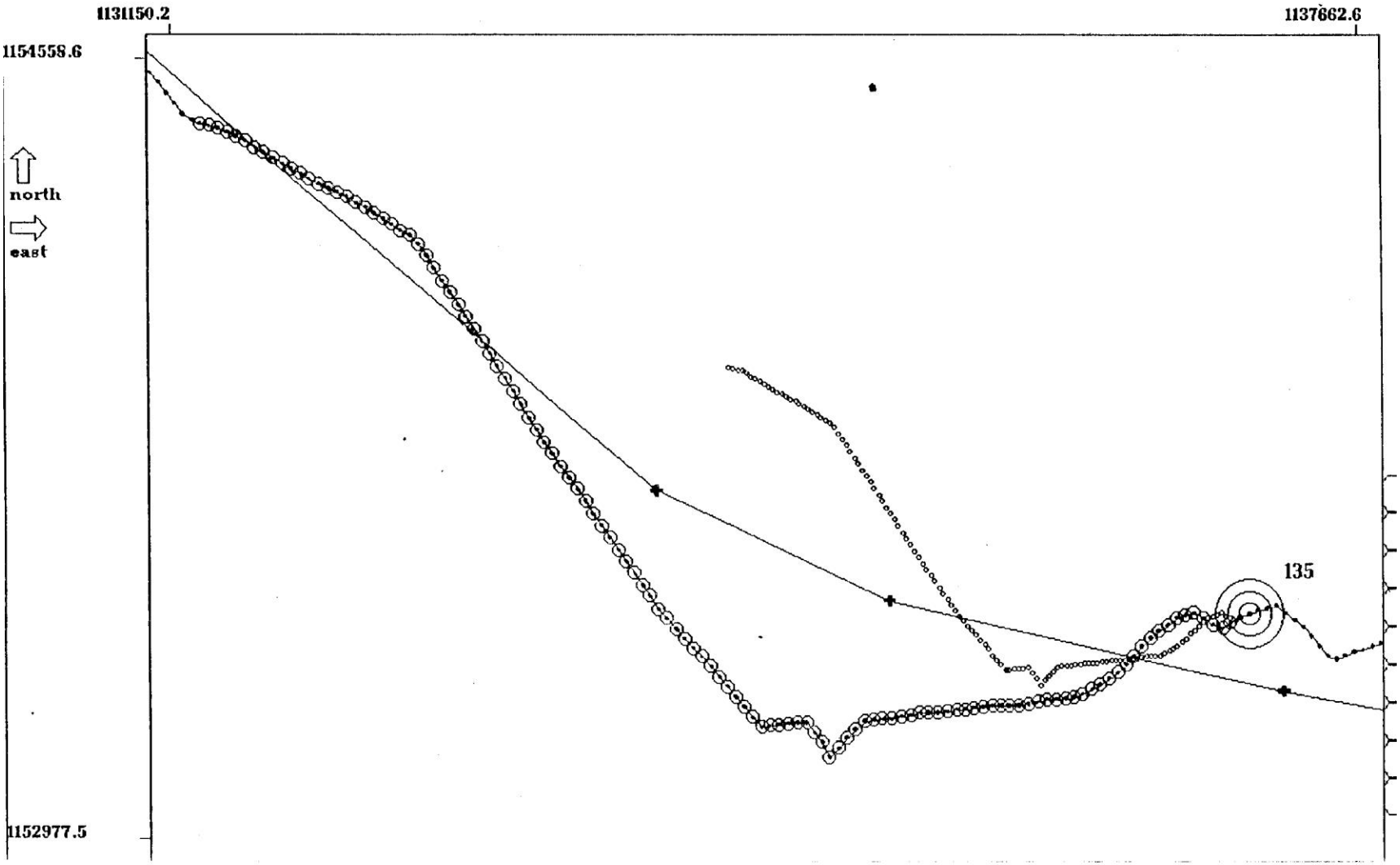
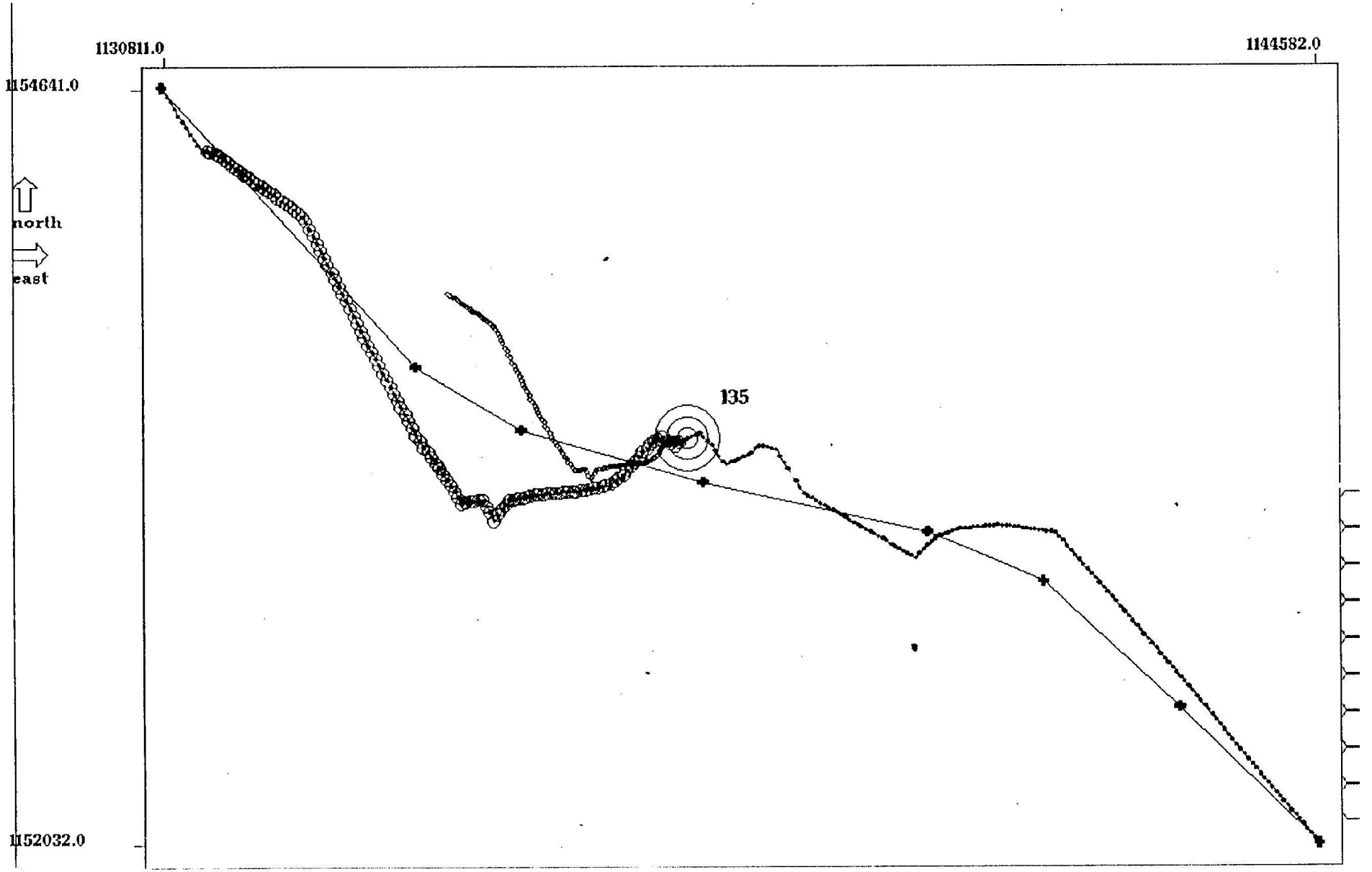
1144582.0
1154641.0
north
east
1152032.0
surface/subsurface plot


1131150.2
1137662.6
1154558.6
north
east
135
1152977.5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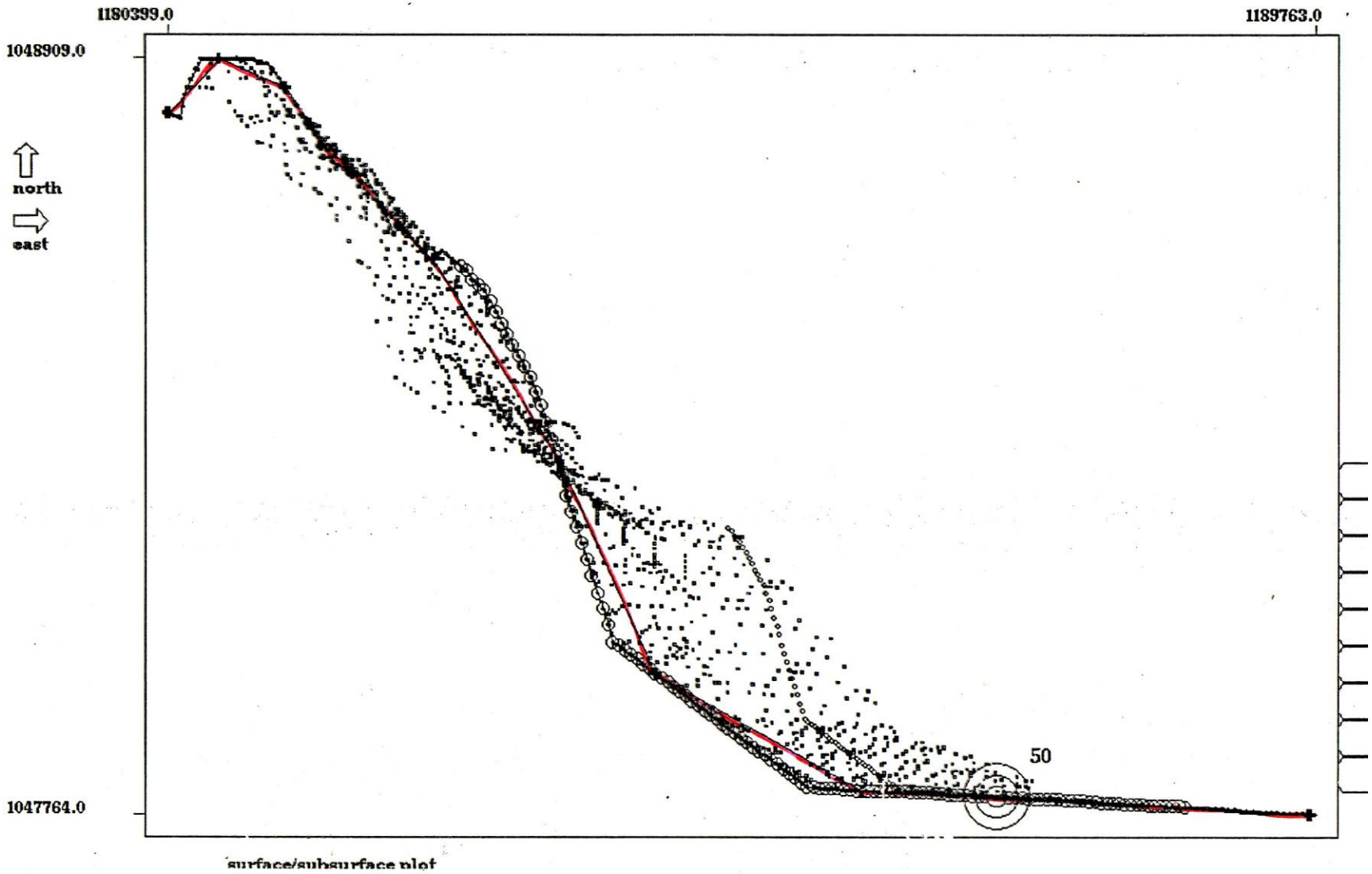
1144582.0
1154641.0
north
east
135
1152032.0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north
east
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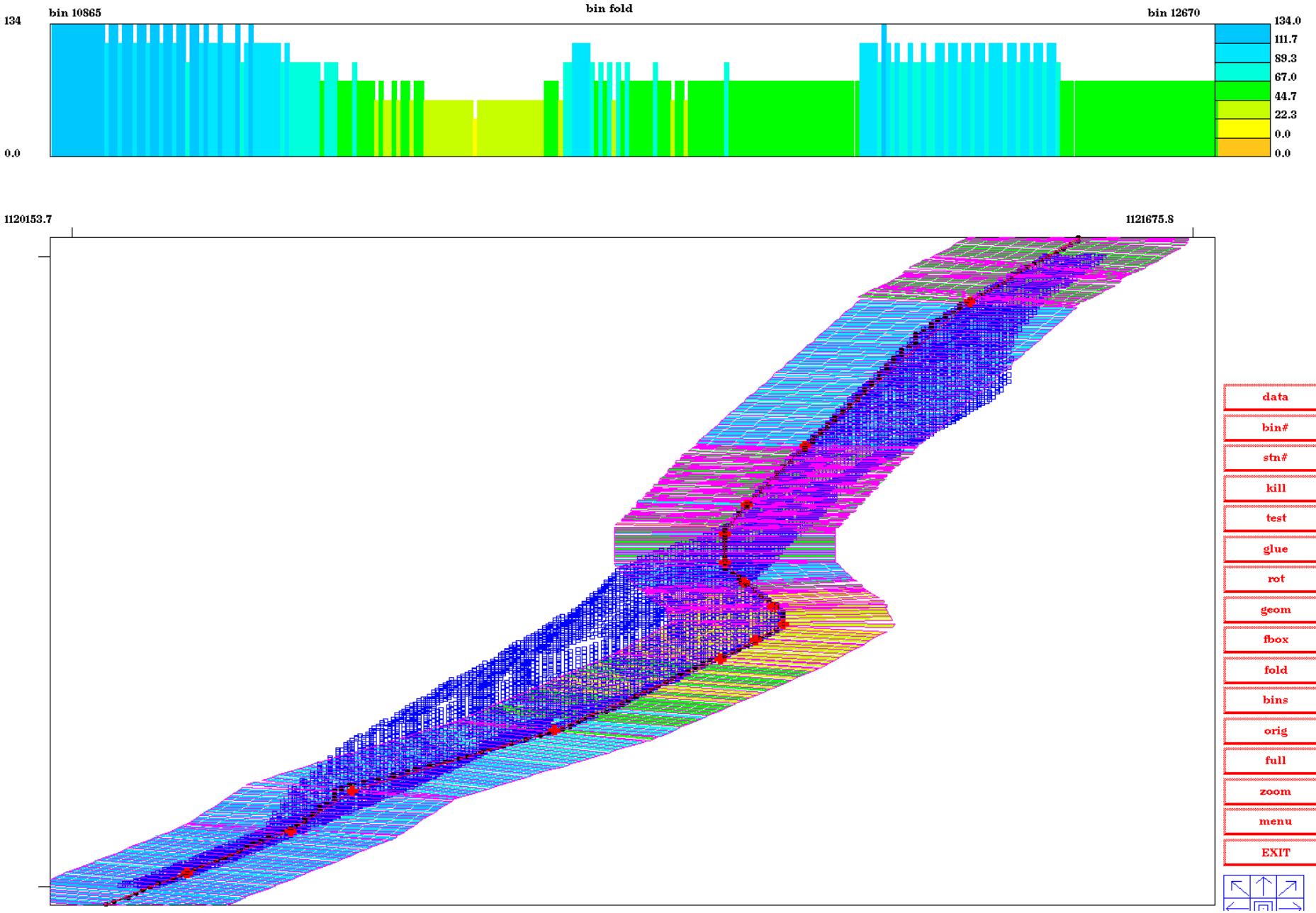
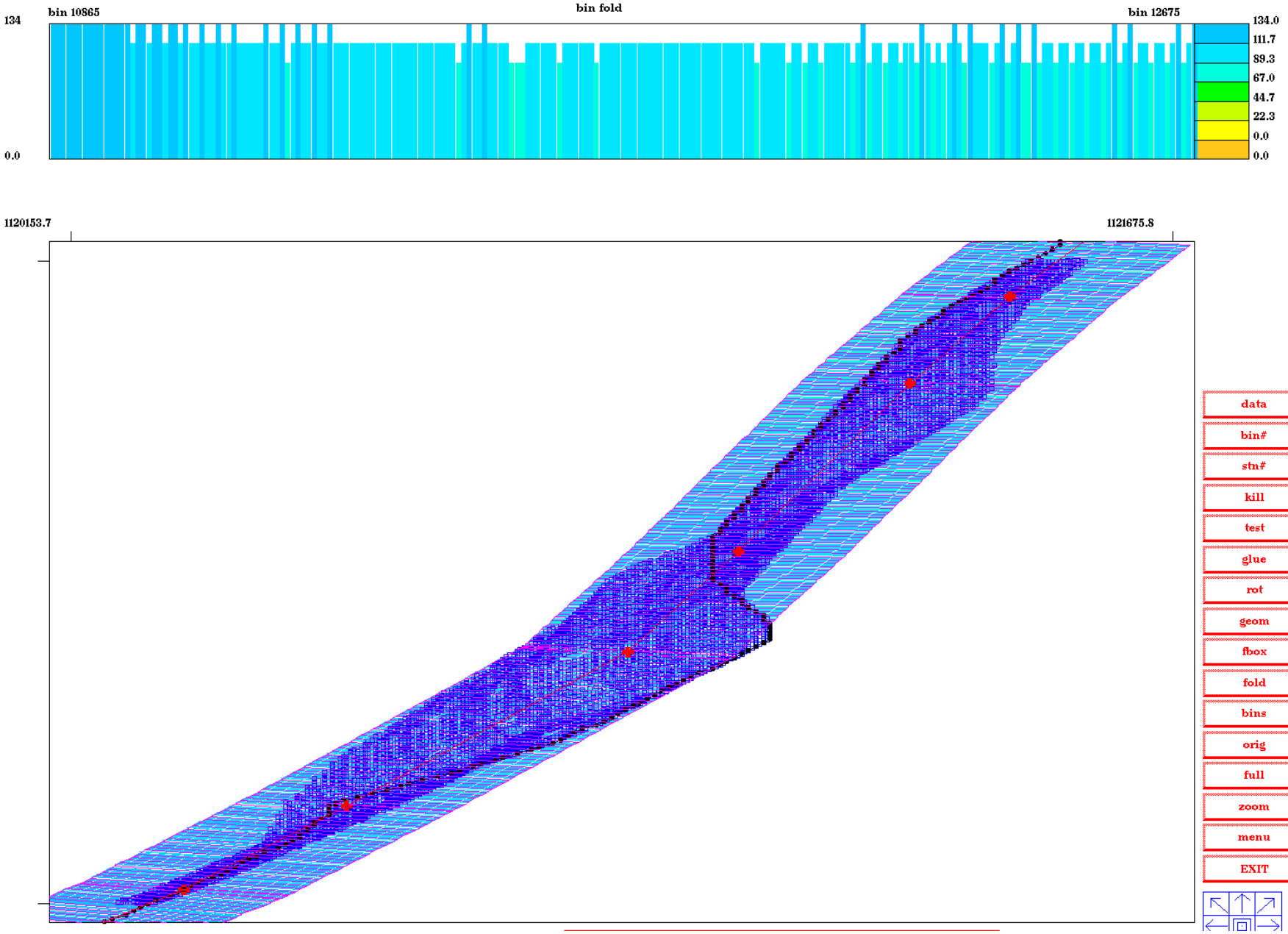
1047764.0
surface/subsurface plot


bin fold
bin 10865
bin 12670
134
0.0
134.0
111.7
89.3
67.0
44.7
22.3
0.0
0.0
1120153.7
1121675.8
data
bin#
stn#
kill
test
glue
rot
geom
fbox
fold
bins
orig
full
zoom
menu
EXIT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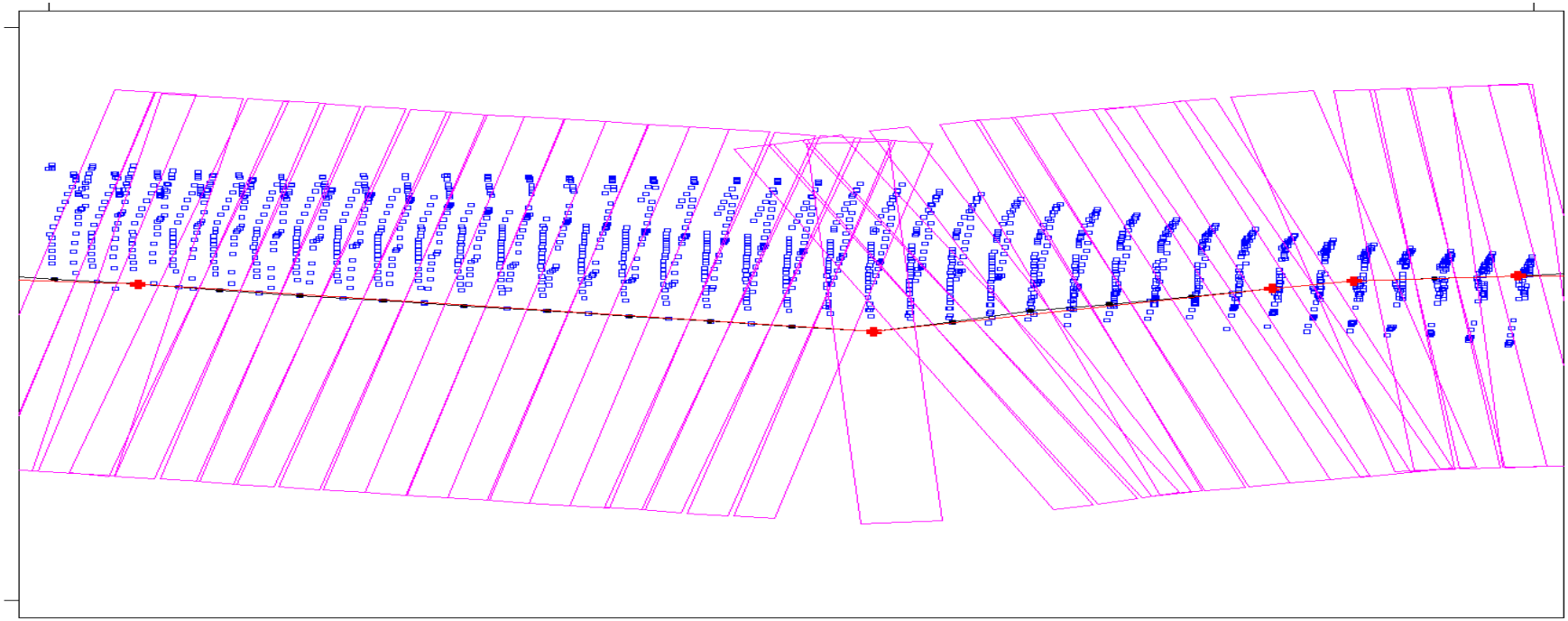
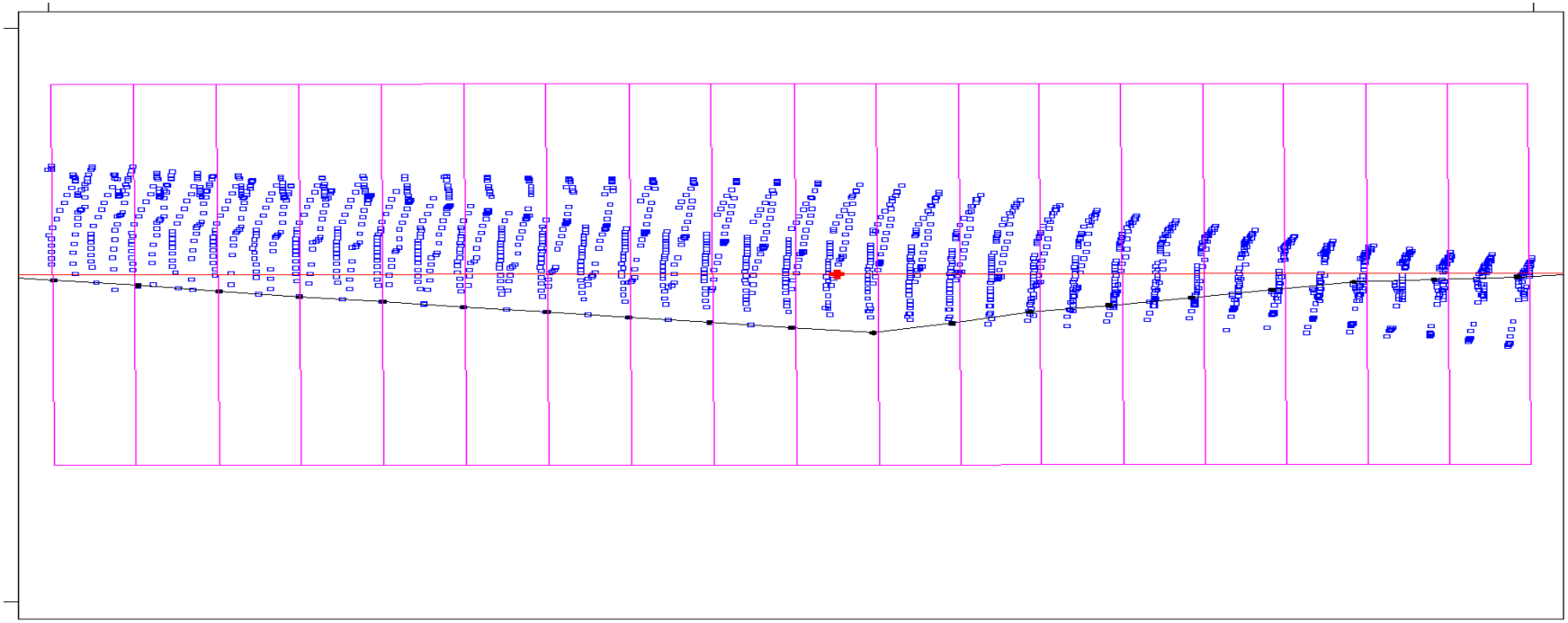
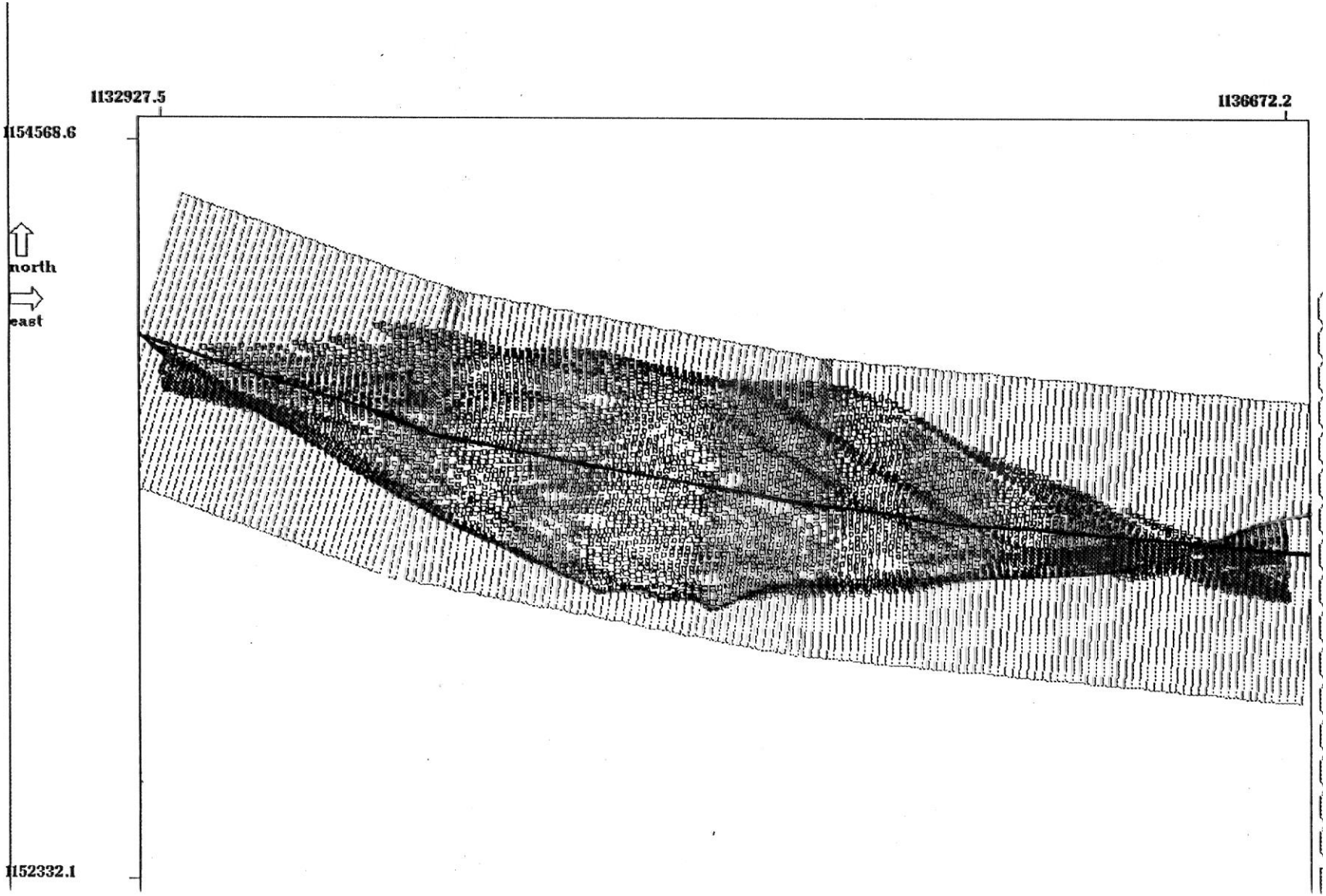
bin fold
bin 12675
134
0.0
134.0
111.7
89.3
67.0
44.7
22.3
0.0
0.0
1120153.7
1121675.8
data
bin#
stn#
kill
test
glue
rot
geom
fbox
fold
bins
orig
full
zoom
menu
EXIT



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1136672.2
1154568.6
north
east
1152332.1