

Figure 1. Re-gridded reduced elevations contoured at 2 m interval (scale 1:10,000).

Note: Outer rectangle is survey area limit; inner dashed rectangle indicates area of full-fold coverage.

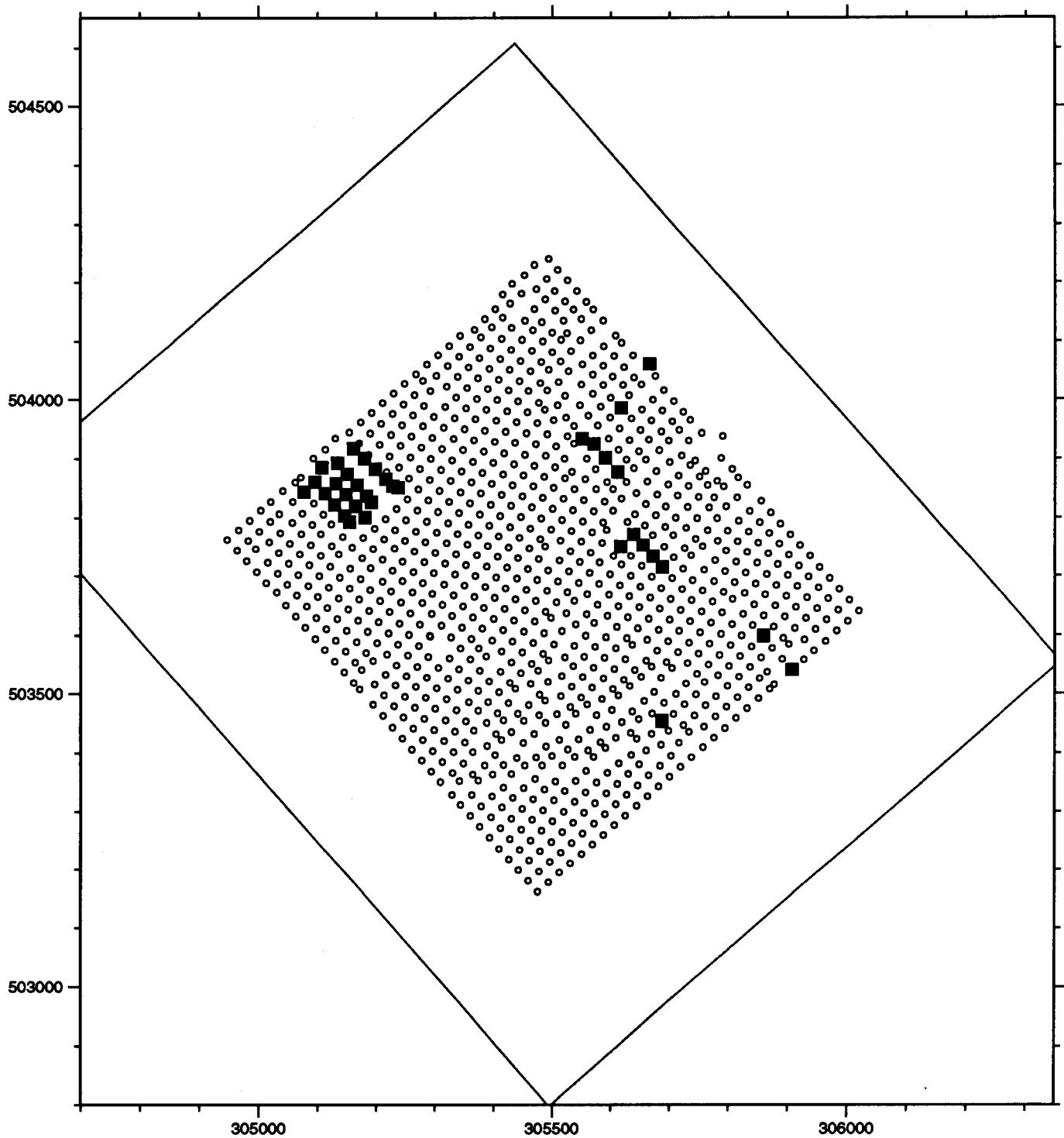


Figure 2. Receiver locations (scale 1:10,000).

Note: Outer rectangle is survey area limit. Surveyed stations are shown by open circles; black squares indicate interpolated receiver locations.

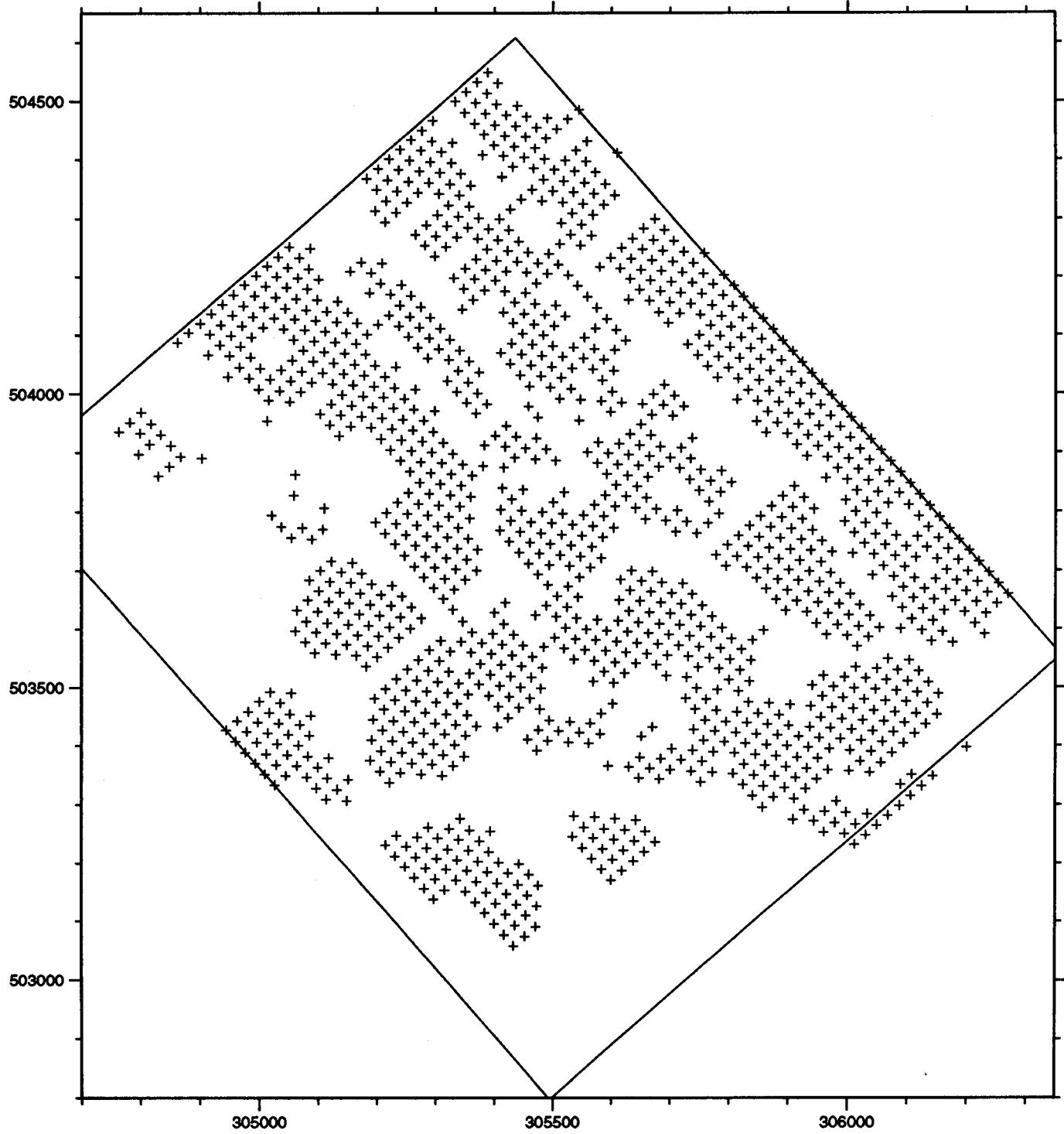


Figure 3. Source locations (scale 1:10,000).

Note: Outer rectangle is survey area limit. Crosses show occupied source positions.

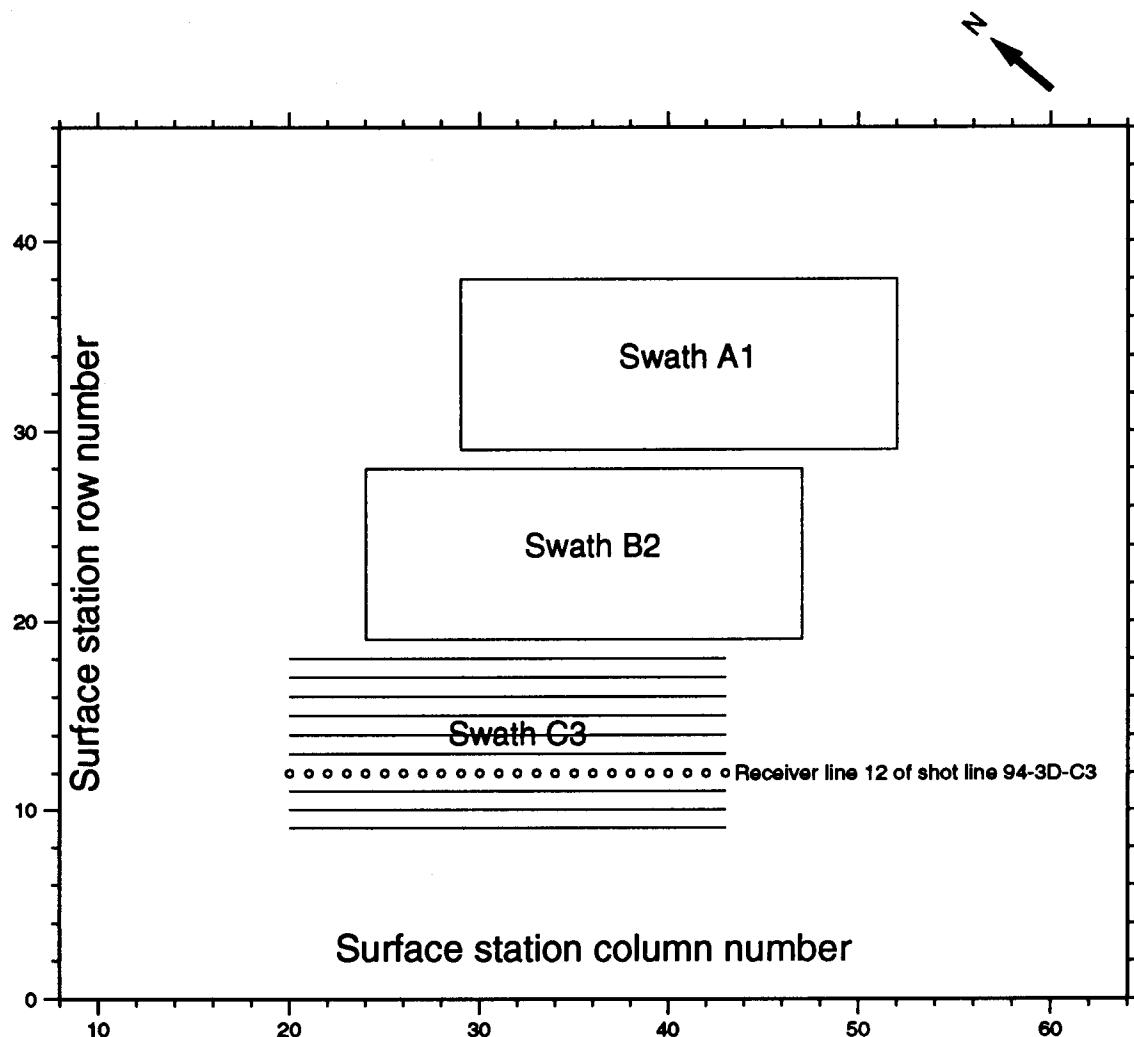


Figure 4. Numbering system for receiver lines.

Note: Main swaths A, B and C lie one above the other. Within each main swath there is a sub-swath 1, 2 and 3 occupying overlapping areas moving successively to the left. Only three of the sub-swaths are shown. One receiver line within sub-swath C3 is illustrated by the 24 receiver locations shown by open circles.

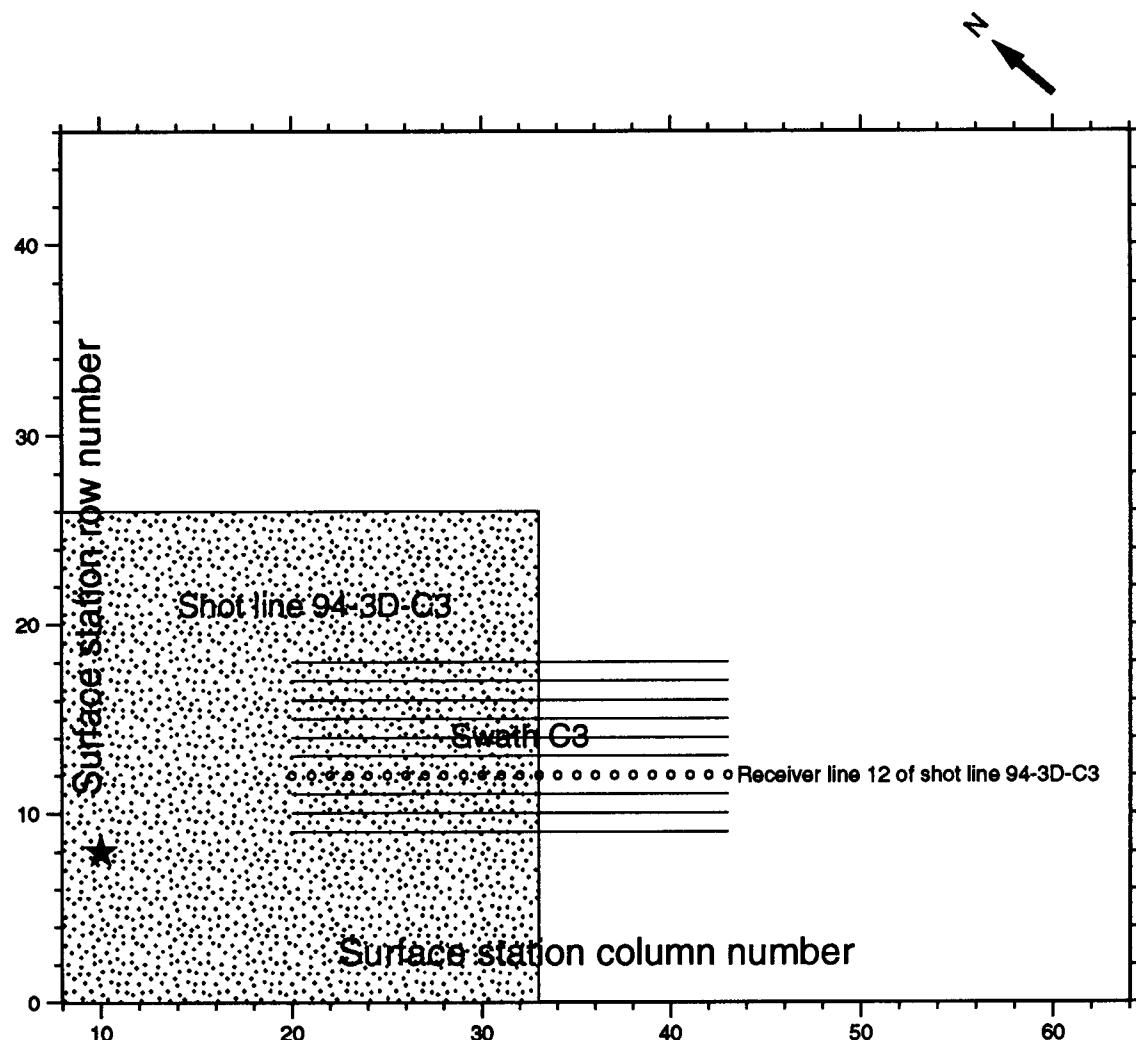


Figure 5. Numbering system for shot lines.

Note: Shots for shot line 94-3D-C3 occupy the stippled area. They are shot into sub-swath C3. One shot is located by the star (see text for discussion).

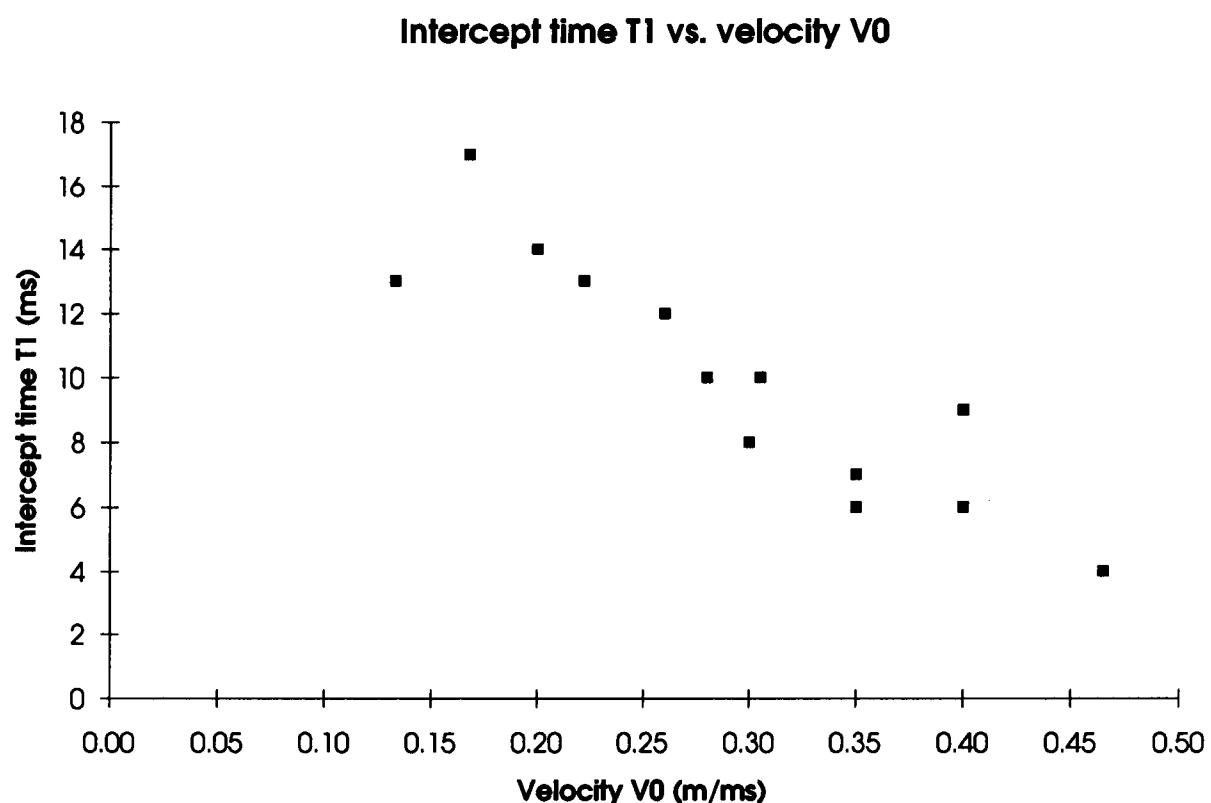


Figure 6. LVL correlation of intercept time T_1 vs. velocity V_0 .

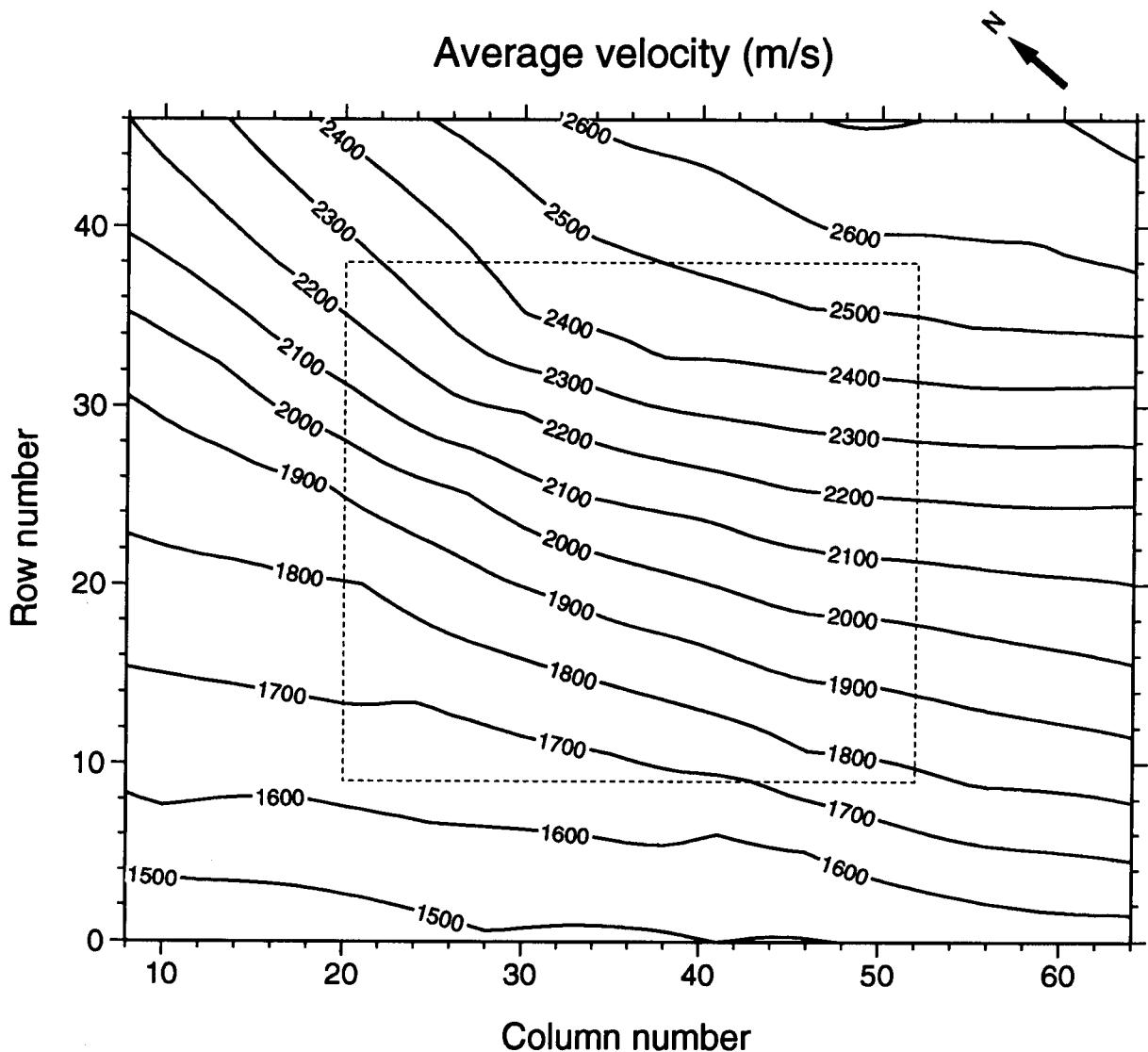


Figure 7. Average near-surface velocity derived from LVL data.

Note: Outer rectangle is survey area limit; inner dashed rectangle indicates area of full-fold coverage.

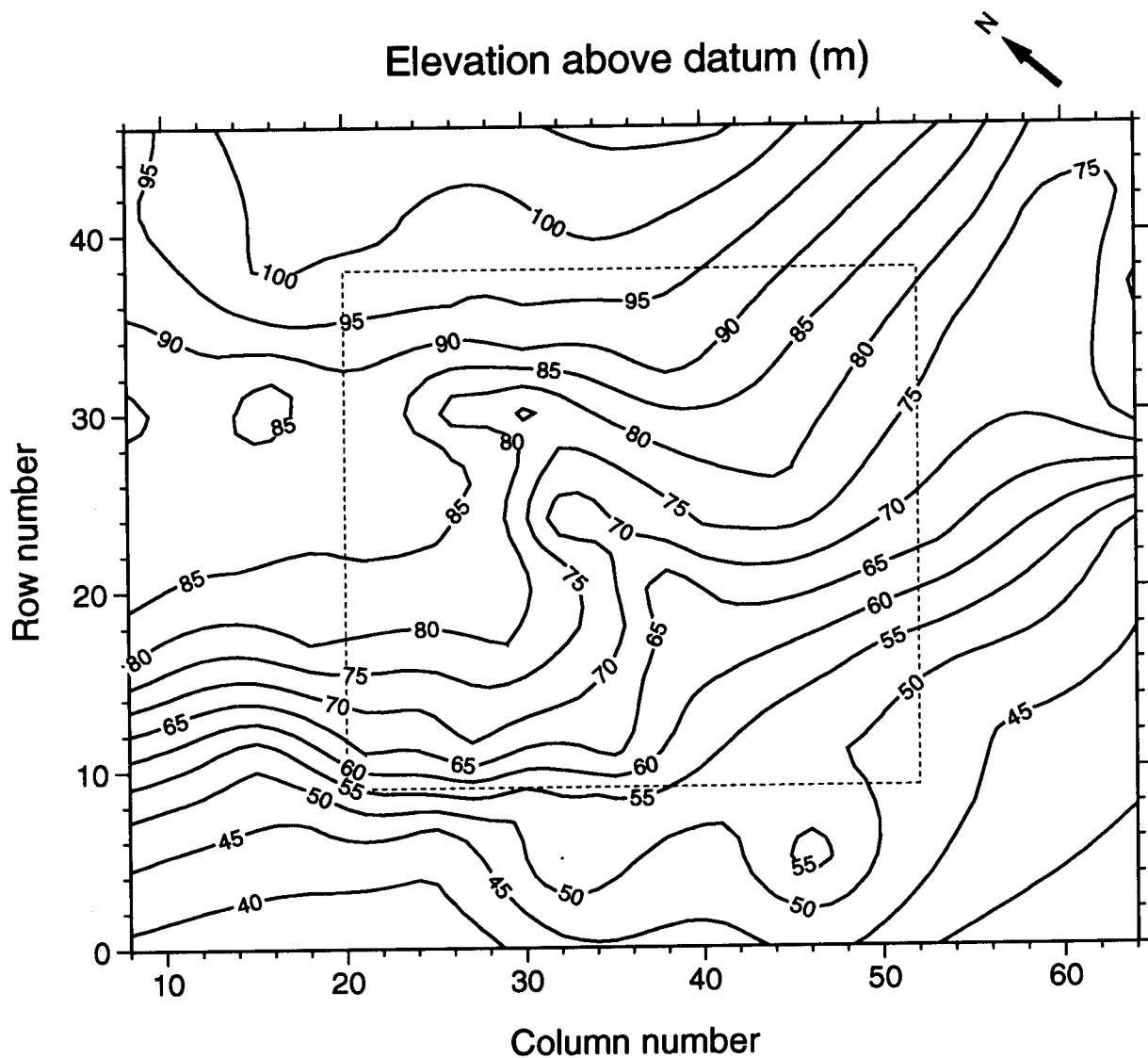


Figure 8. Topographic elevation model from 82 points gridded and contoured.

Note: Outer rectangle is survey area limit; inner dashed rectangle indicates area of full-fold coverage.

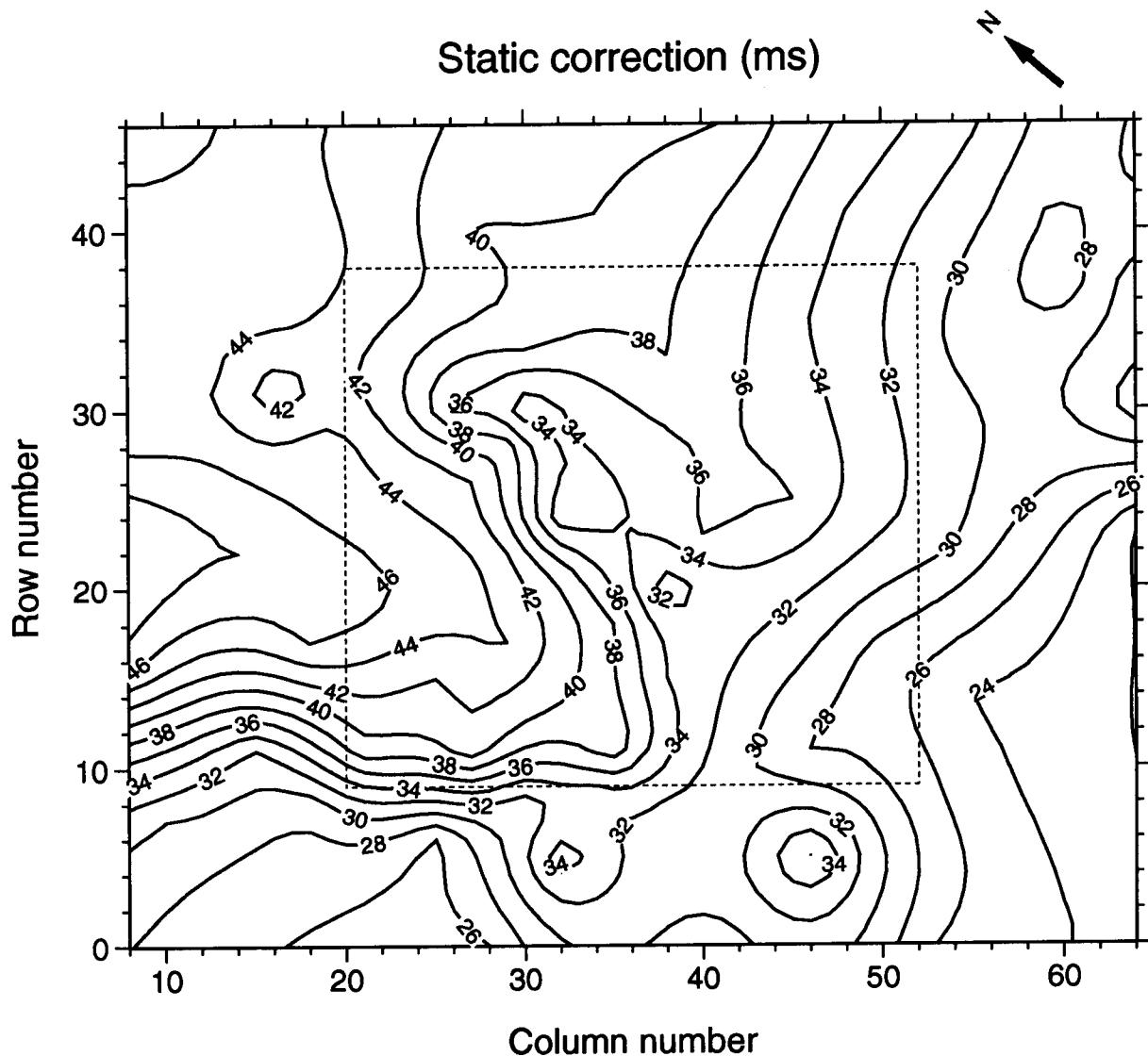


Figure 9. Static corrections to O.D. derived from LVL velocities and elevations.

Note: Outer rectangle is survey area limit; inner dashed rectangle indicates area of full-fold coverage.

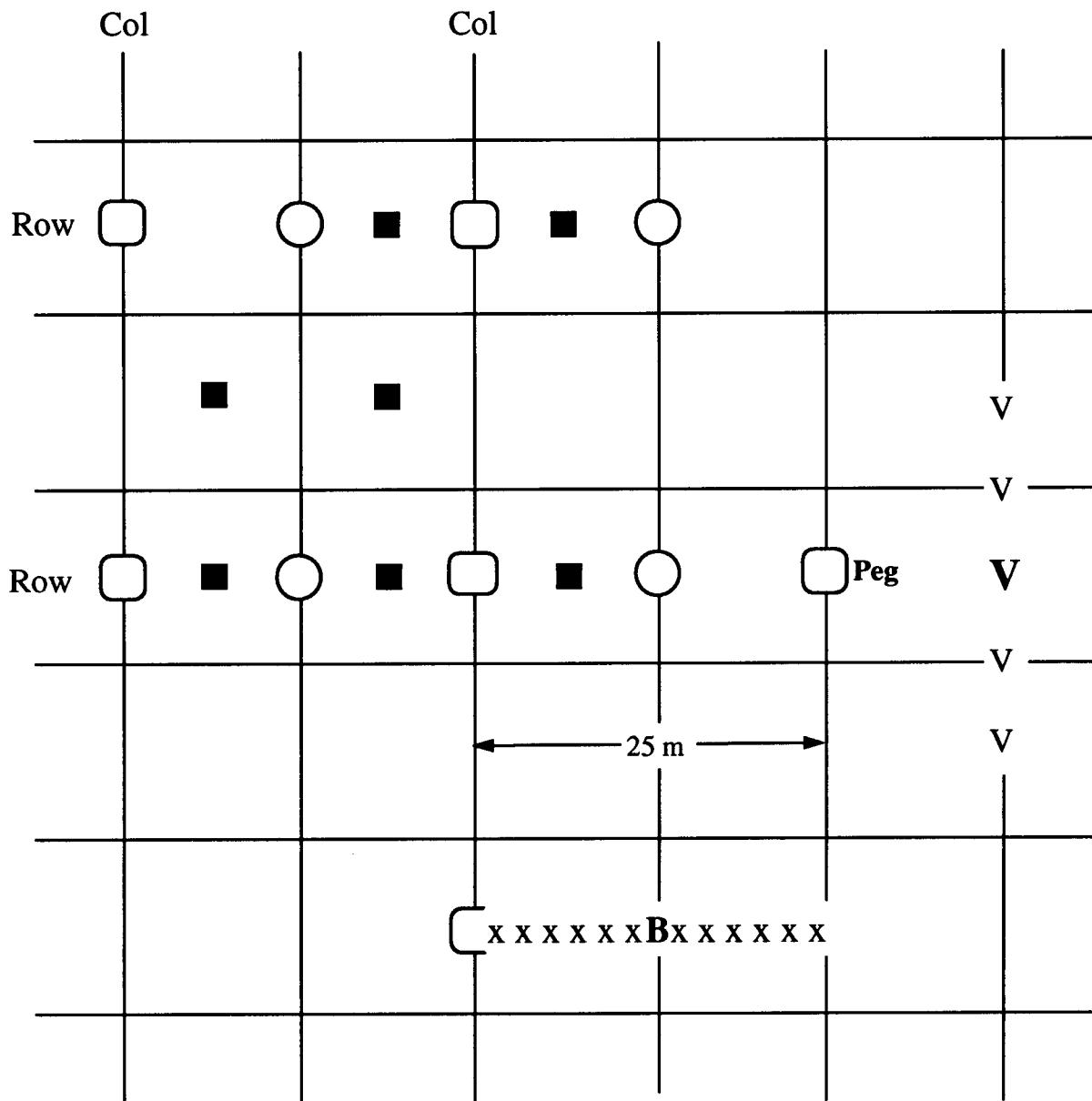


Figure 10. Plan of binning geometry.

Note: The square surface grid of rows and columns is marked by pegs (large white squares) at 25 m intervals. The row of 'x's represents the 12 elements of a geophone group laid to the right of a peg. 'B' marks the geophone group barycentre. The source array moves parallel to columns but midway between a pair of columns. The positions of 5 sweeps for one VP are marked by 'v's, with the large central V denoting the barycentre of the summed sweeps. The Vs are coincident with the Bs, so that the barycentres of both sources and receivers lie on a common grid (circles). Within ProMAX the receiver group barycentres are located at these circles, whereas the source barycentres V are located at the reference peg to the left of V. The result is that the source-receiver common mid-points (CMPs) are located at the black squares.

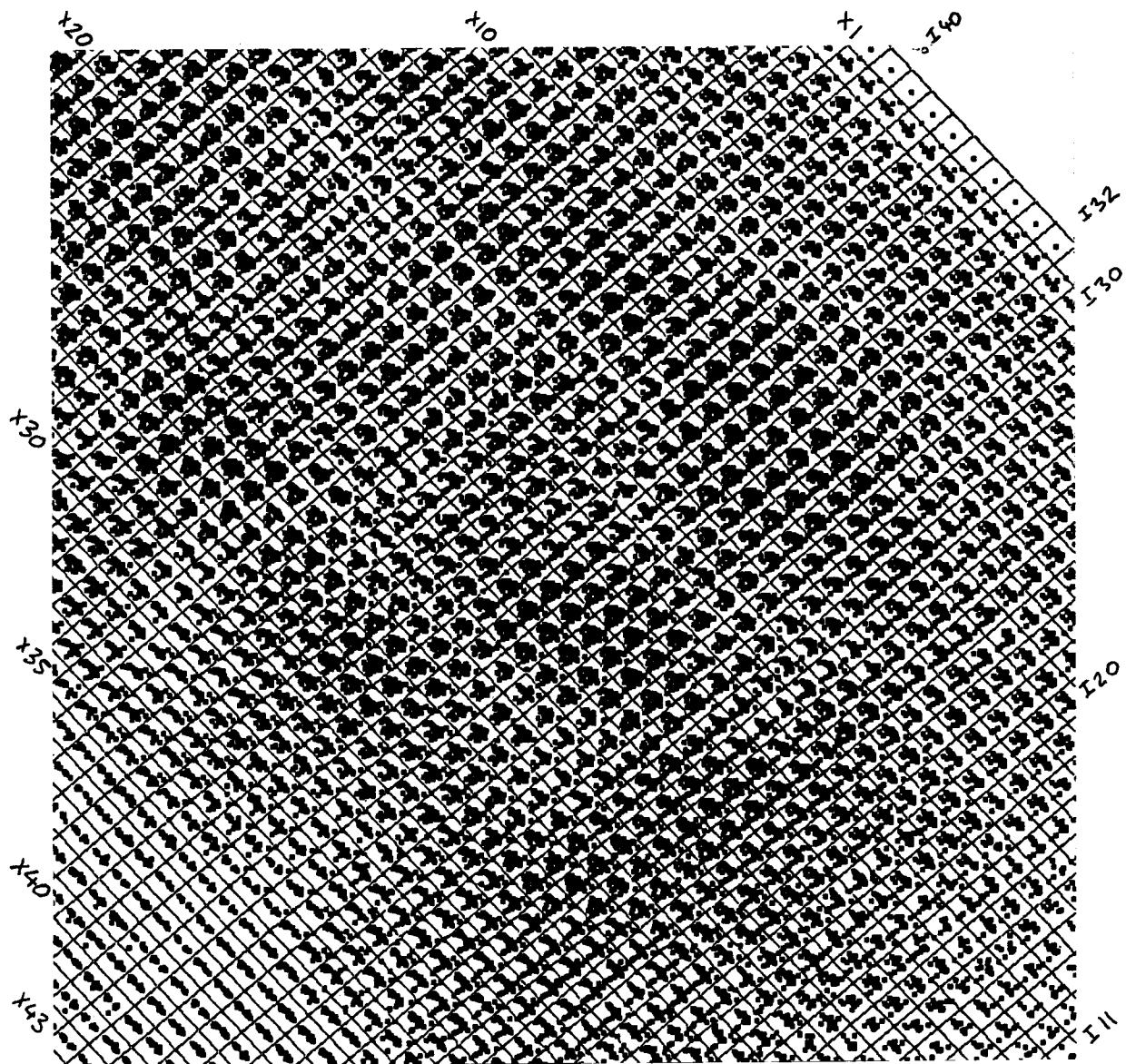


Figure 11. Detail of CMP bin map.

Note: The one-fold coverage of cross-line X1 is shown at the top-right-hand corner. North is up.

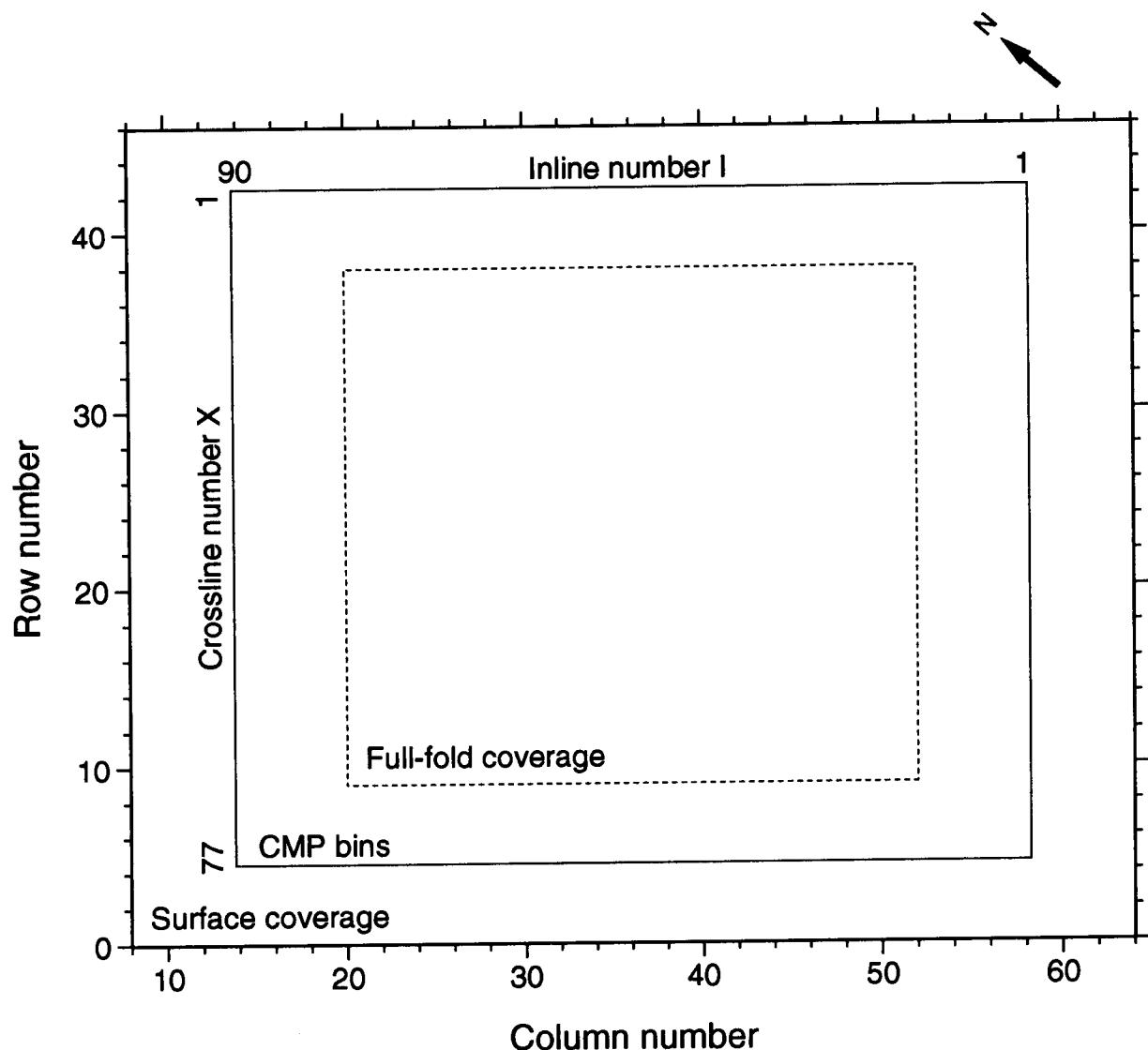


Figure 12. Numbering system for the CMP bins.

Note: Bin columns are numbered from 1 to 90, bin rows from 1 to 77.

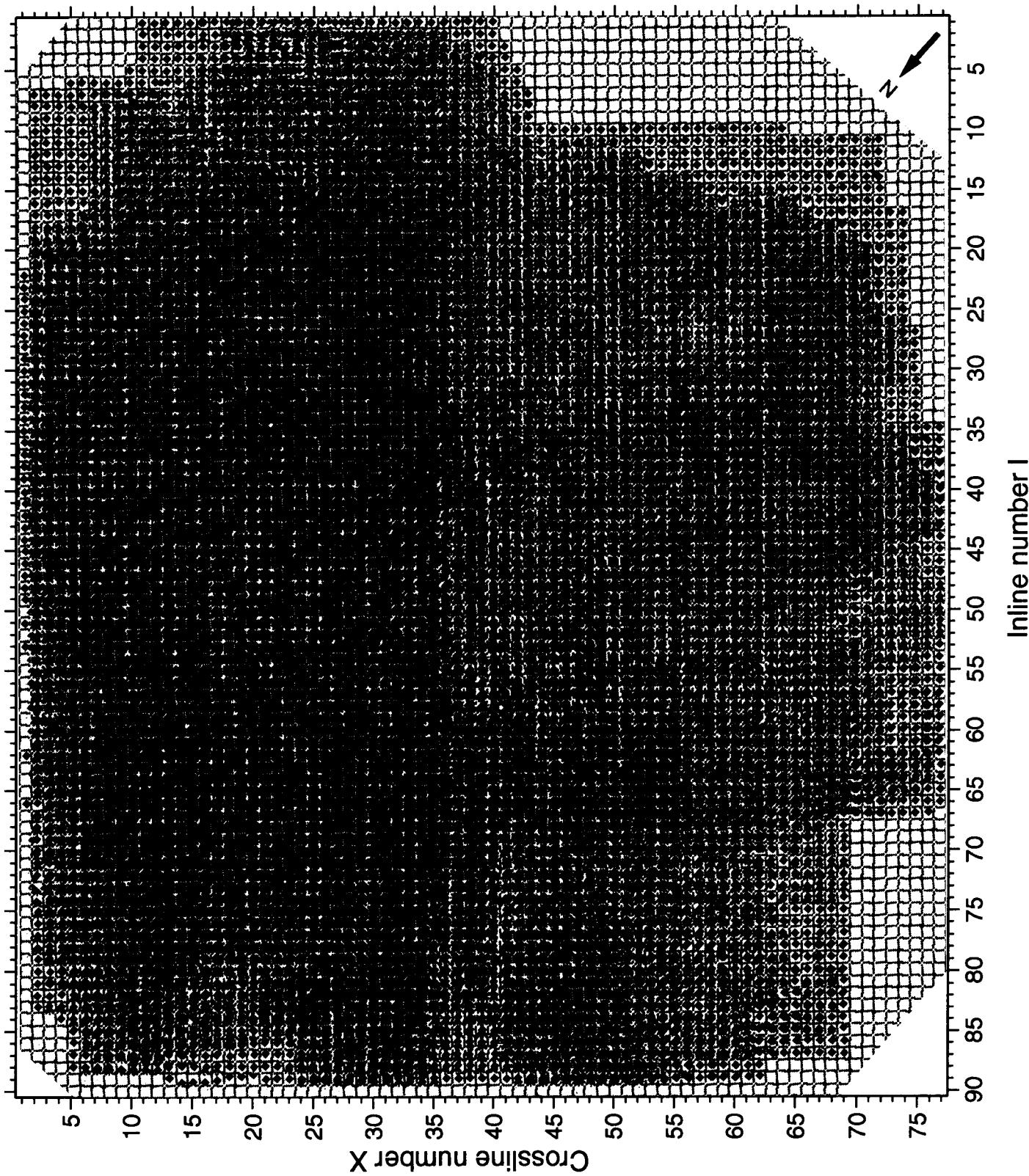


Figure 13. Grid of bins with density of infill corresponding to fold of cover.

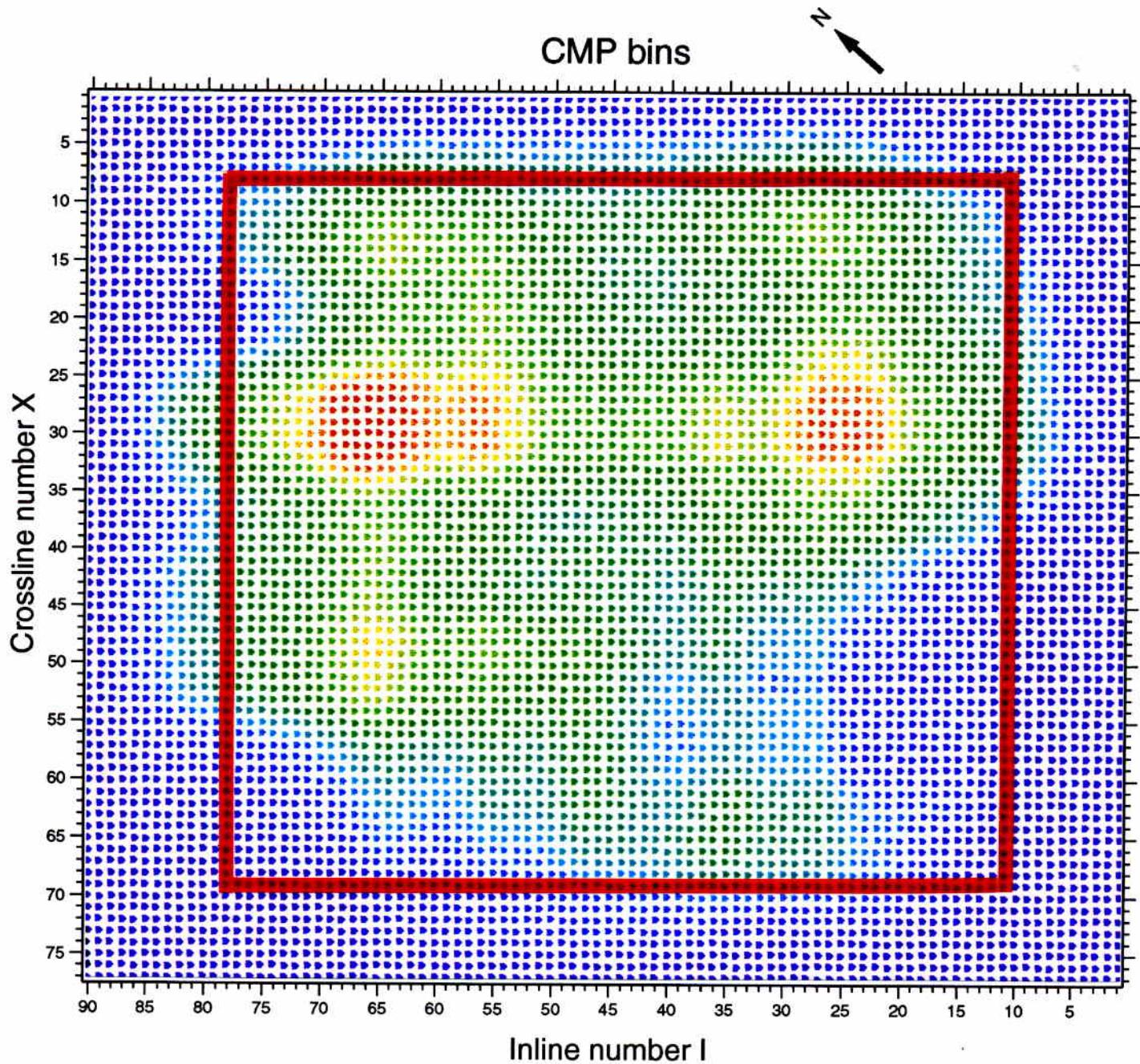


Figure 14. Fold of cover within the CMP bin area at a true scale.

Note: Colour code for fold is light blue - 50-80; green - 100-170; yellow - 170-200; red - 200-255. Red rectangle indicates area of theoretical full-fold coverage.

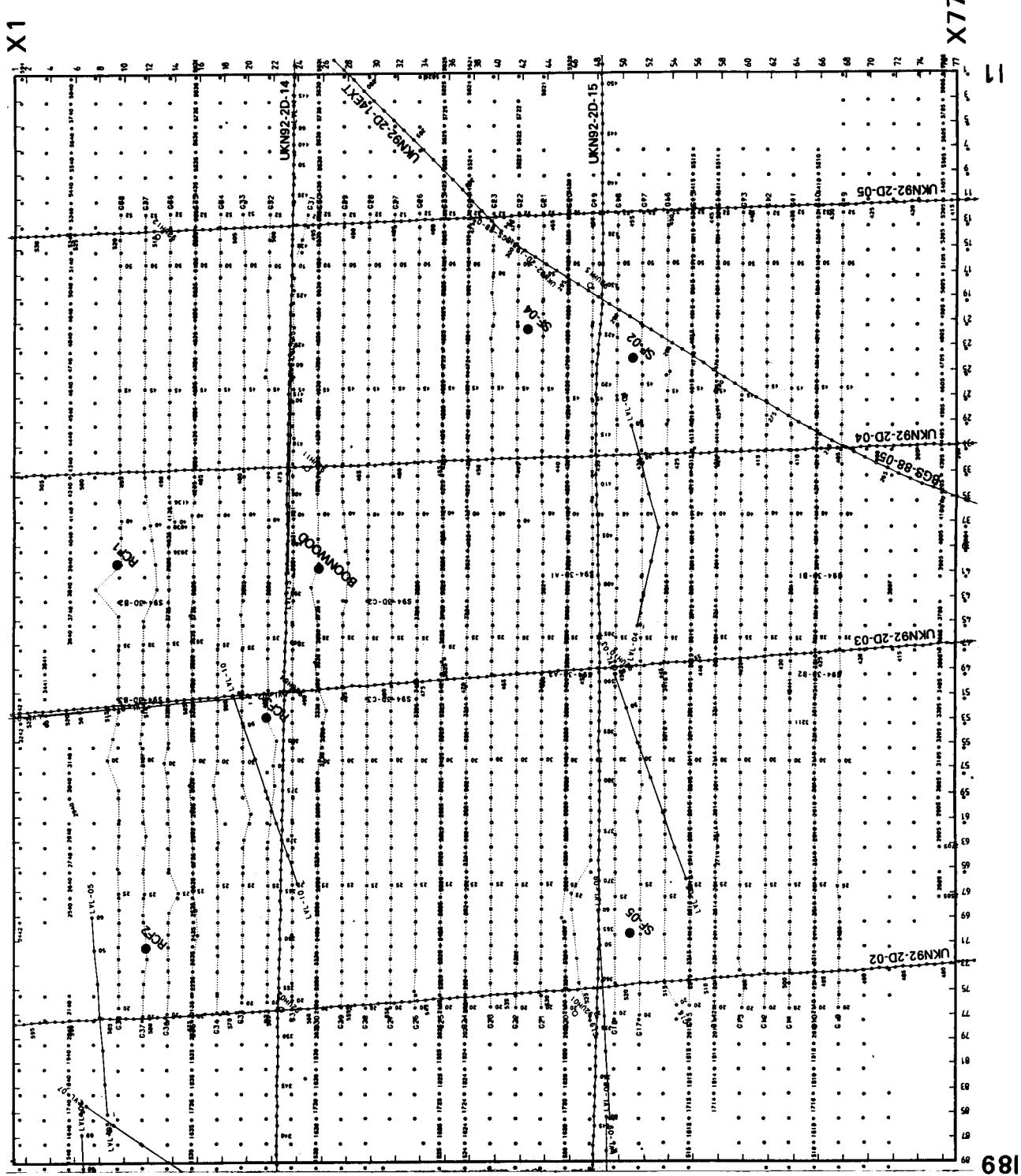
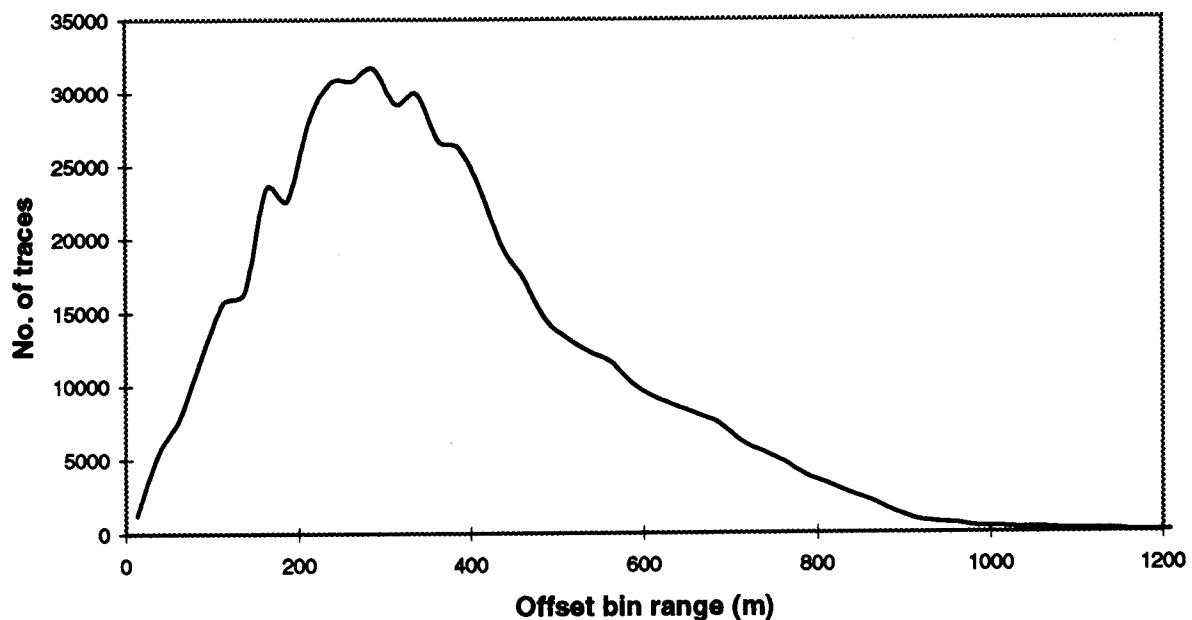


Figure 15. Shot-point map of area of 3-D CMP coverage.

a

Offset bin distribution (25 m bin interval)



b

Percentage of traces less than specified offset

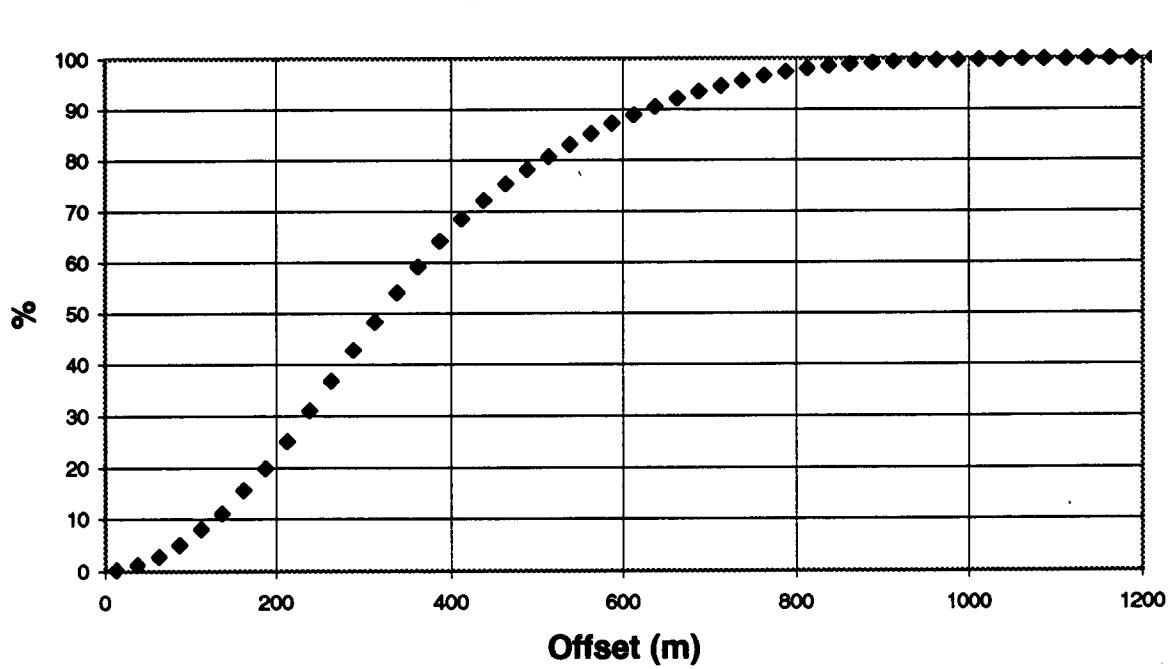


Figure 16. Offset bin distribution.

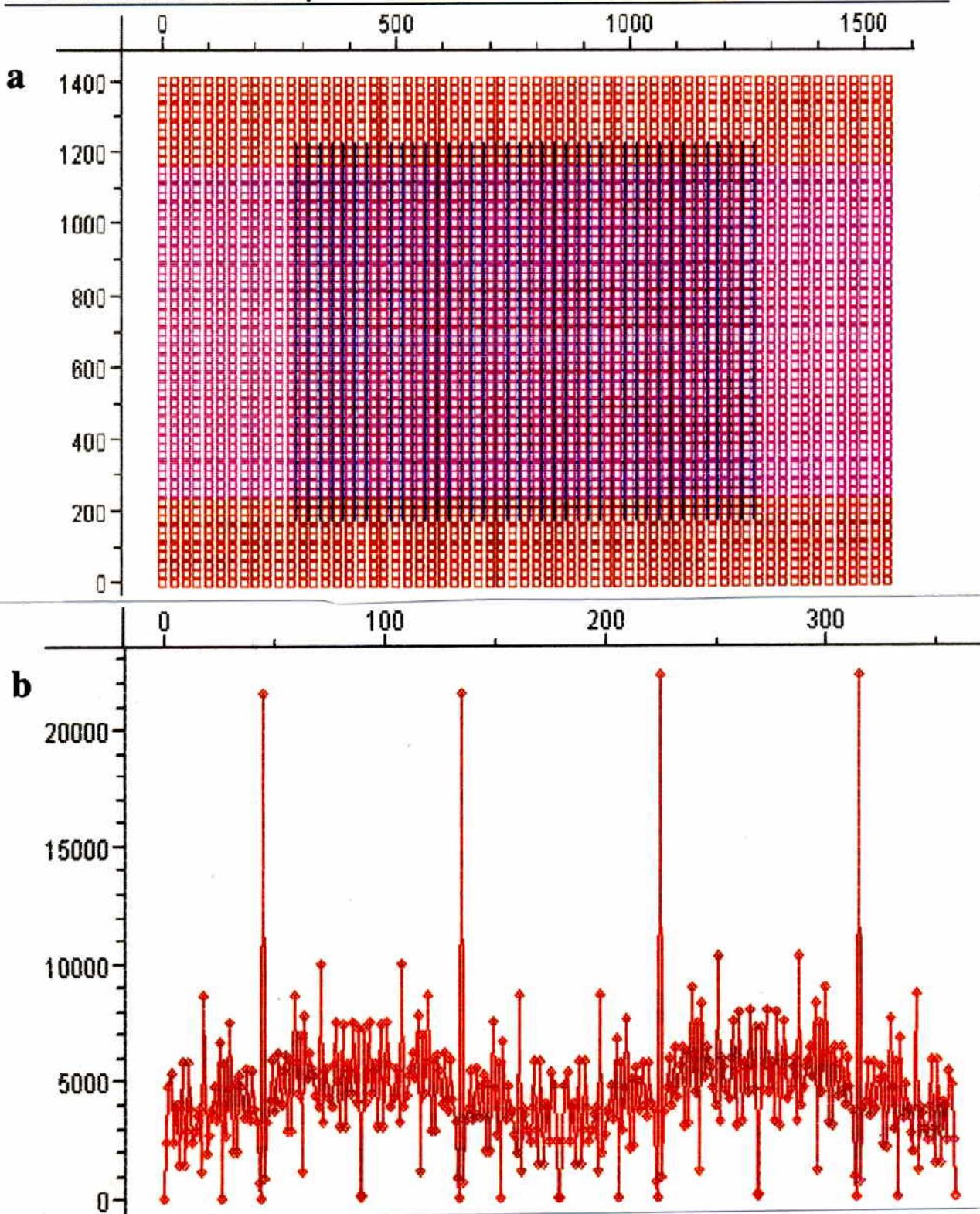


Figure 17. Azimuthal distribution of offsets of pre-survey design.

Note: Fig. 17a is a plan of source points (grid of red/lilac squares) surrounding receiver points within darker central rectangle. Vertical and horizontal axes in metres. Fig. 17b is corresponding trace frequency (vertical axis) *versus* azimuthal distribution ($0\text{--}360^\circ$) in 2° bins.

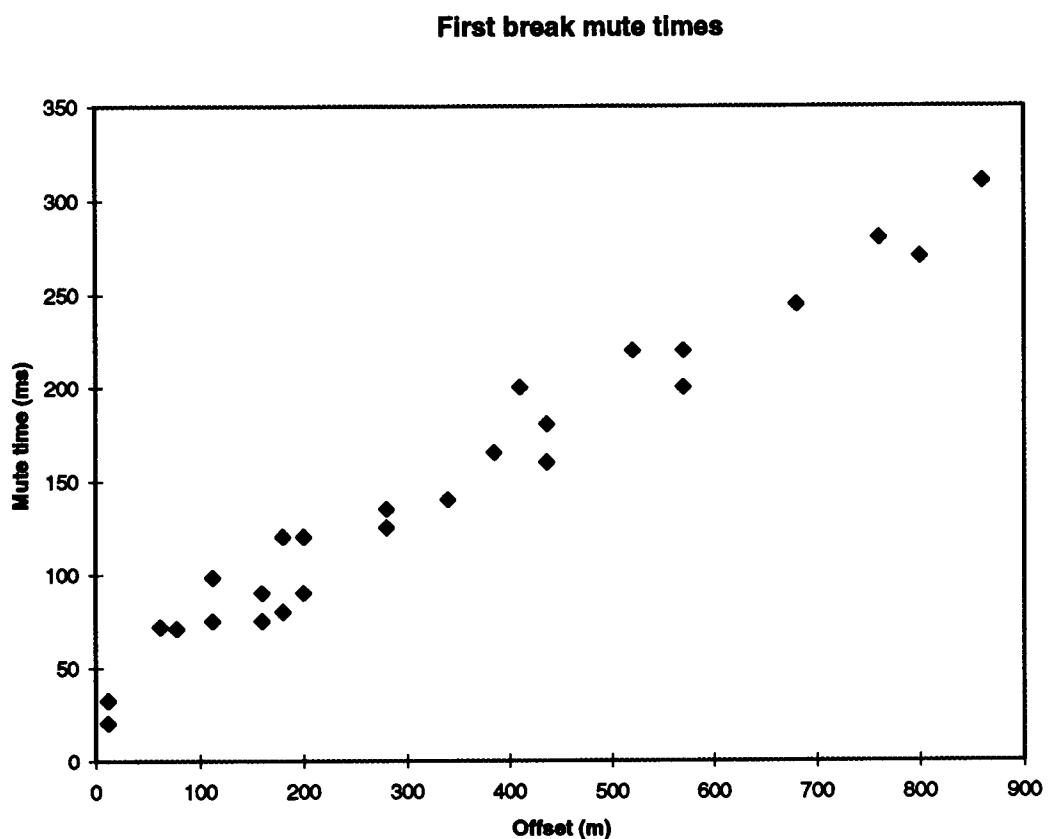


Figure 18. First break mute times.

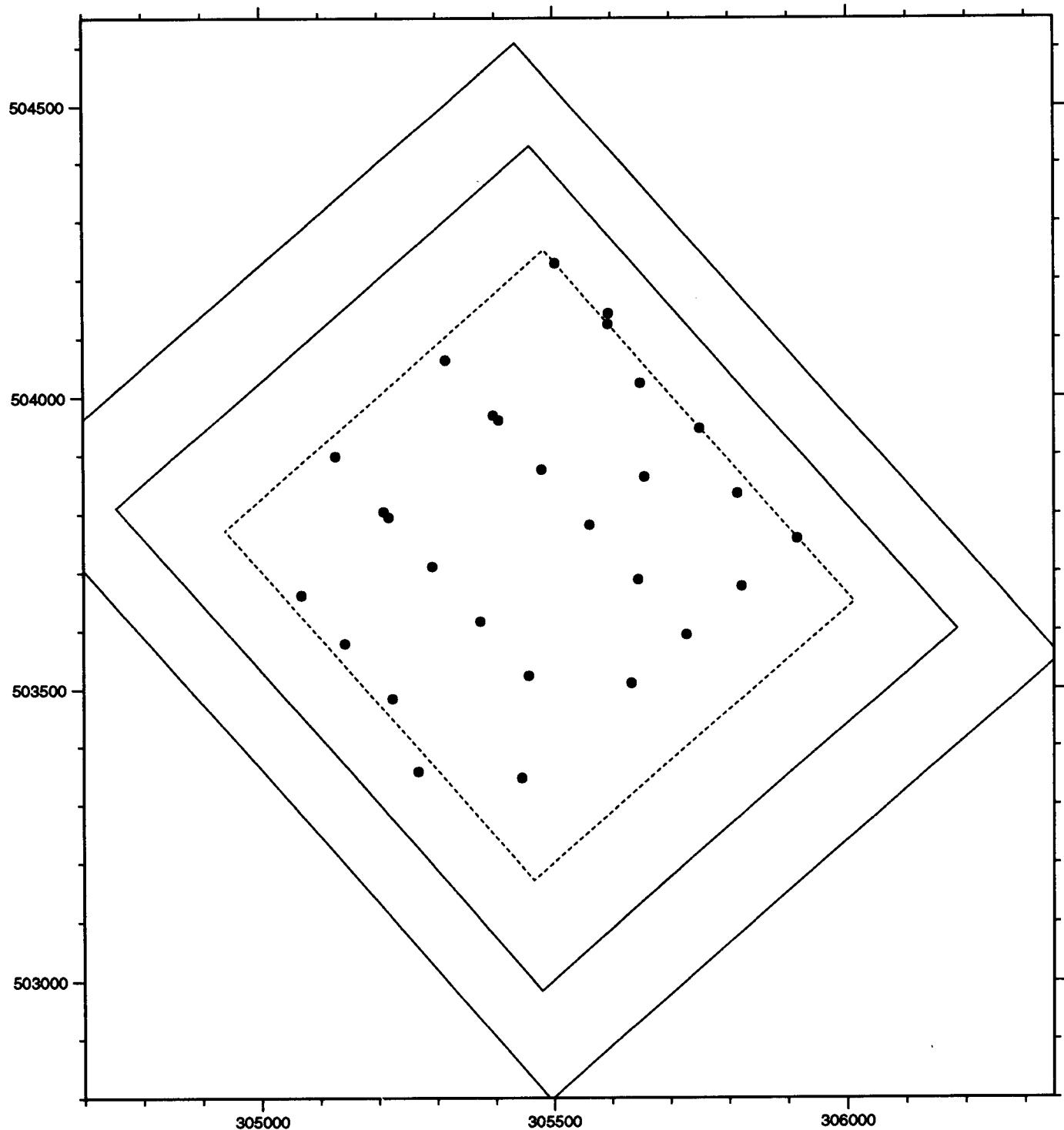


Figure 19. Interval velocity analysis (IVA) locations (1:10,000 scale).

Note: 28 IVA locations are shown by the black dots. Rectangles are, in order from outside to inside: survey perimeter area; CDP bin area, full-fold area.

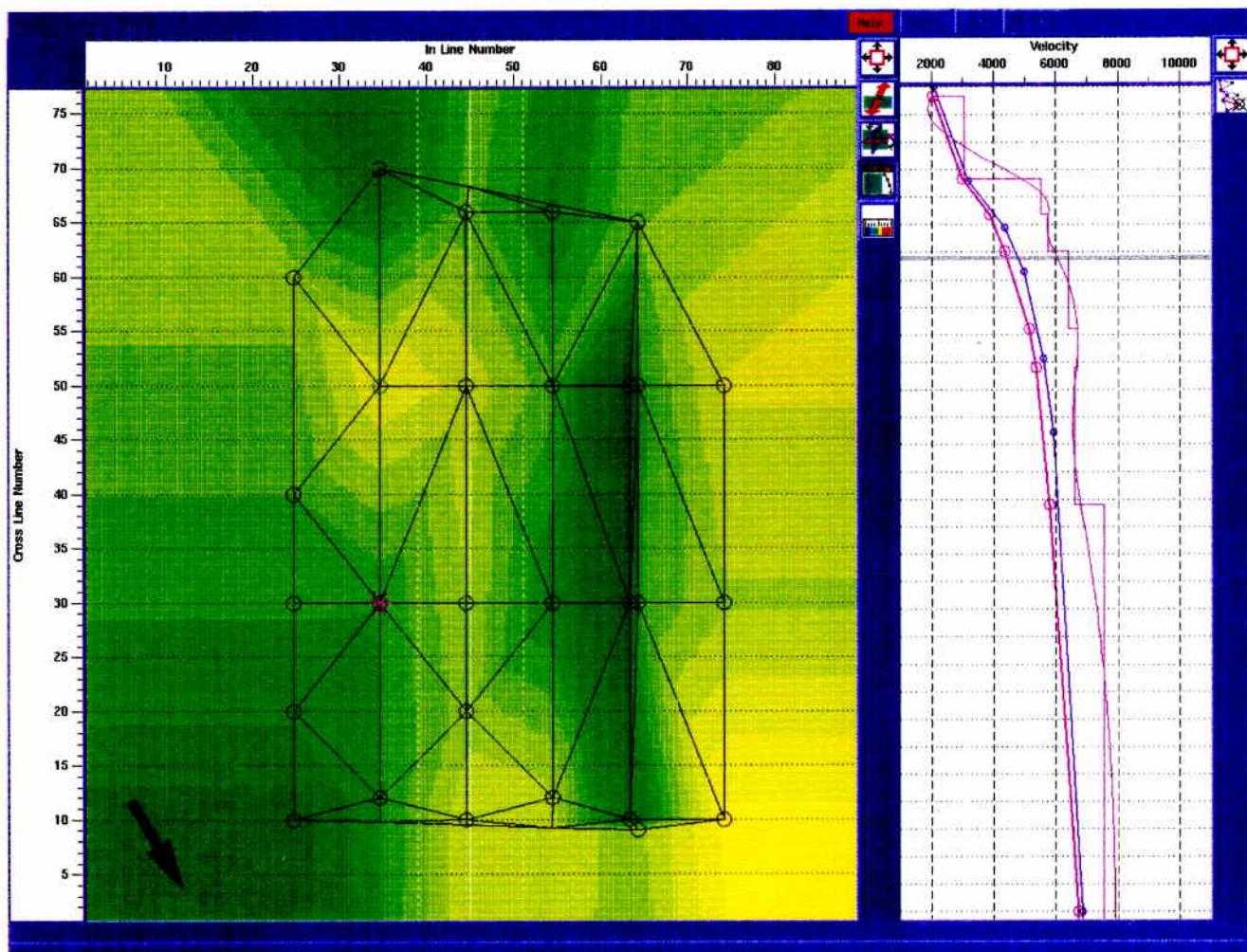


Figure 20. Interactive velocity analysis display.

Note: Location plan is on left, with one position highlighted in red. The rms and interval velocity picks for this location (X30, I35) are shown on the V-T plot on the right (vertical scale 0-1500 ms). Arrow on location plan indicates north.

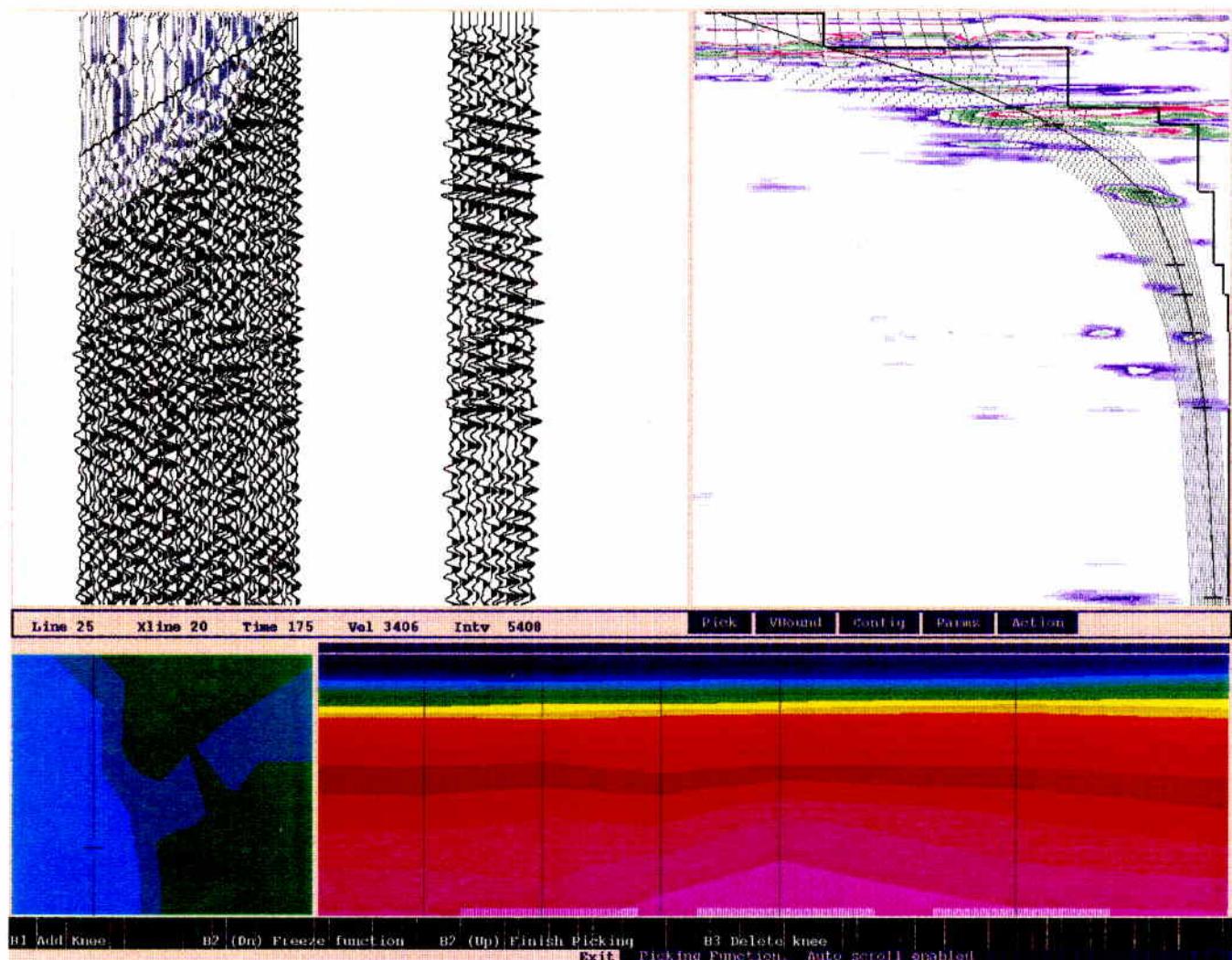


Figure 21. Interactive velocity analysis display showing semblance plots.

Note: Top left - CMP gather at X20, I25 after NMO correction, stretch mute and first break mute (vertical scale 0-1000 ms). Top centre - stack of 11 traces of I25, from X15 to X25. Top right - semblance plot. Bottom left - plan view of survey area. Bottom right - rms velocity map for I25.

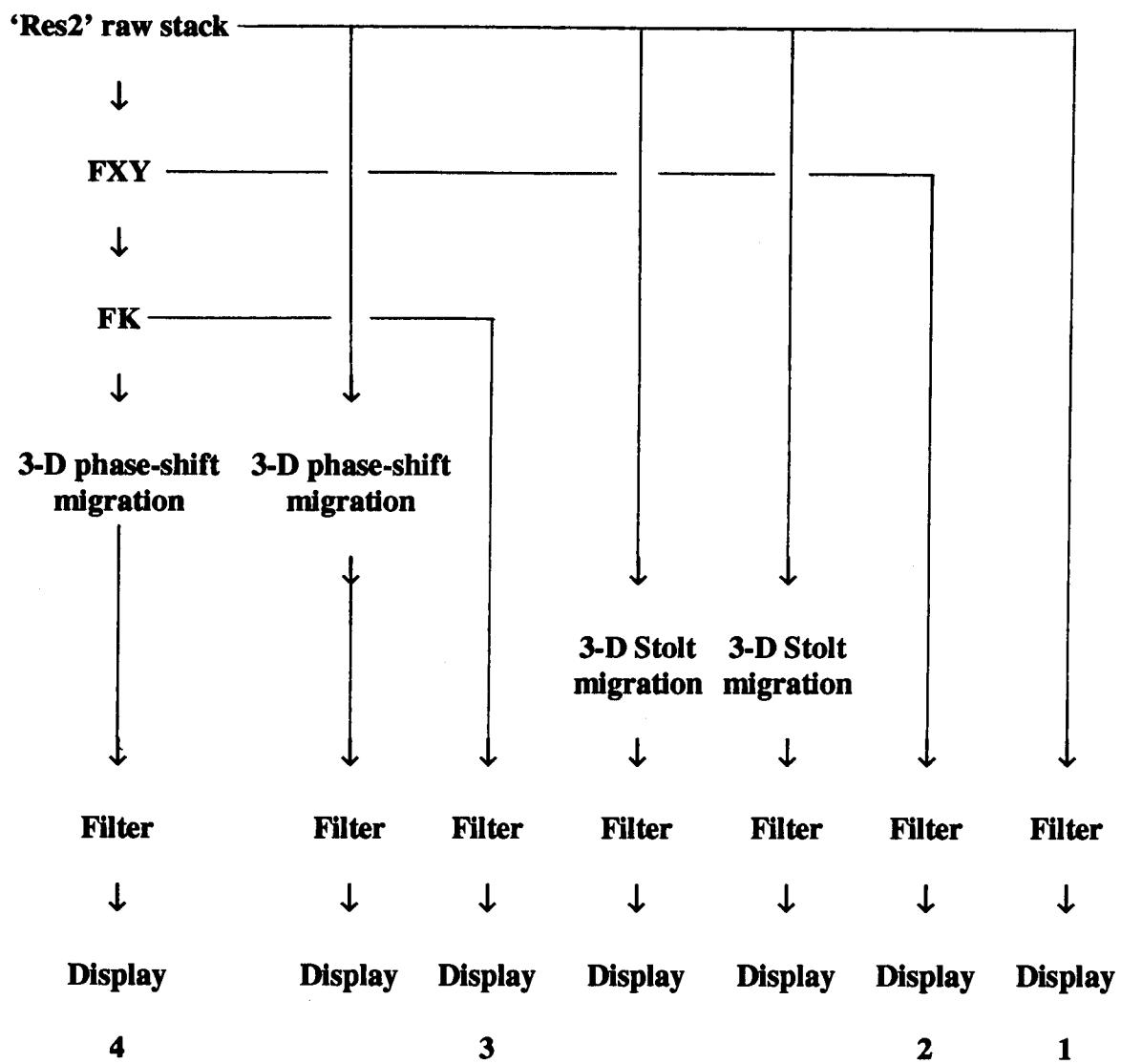


Figure 22. Test processing flow sequences starting from raw stack 'Res2'.

Note: Filtered stacked or migrated tapes have been written after each of these seven stages. The lowermost row of figures indicates the display panel number in Figures 23-28.

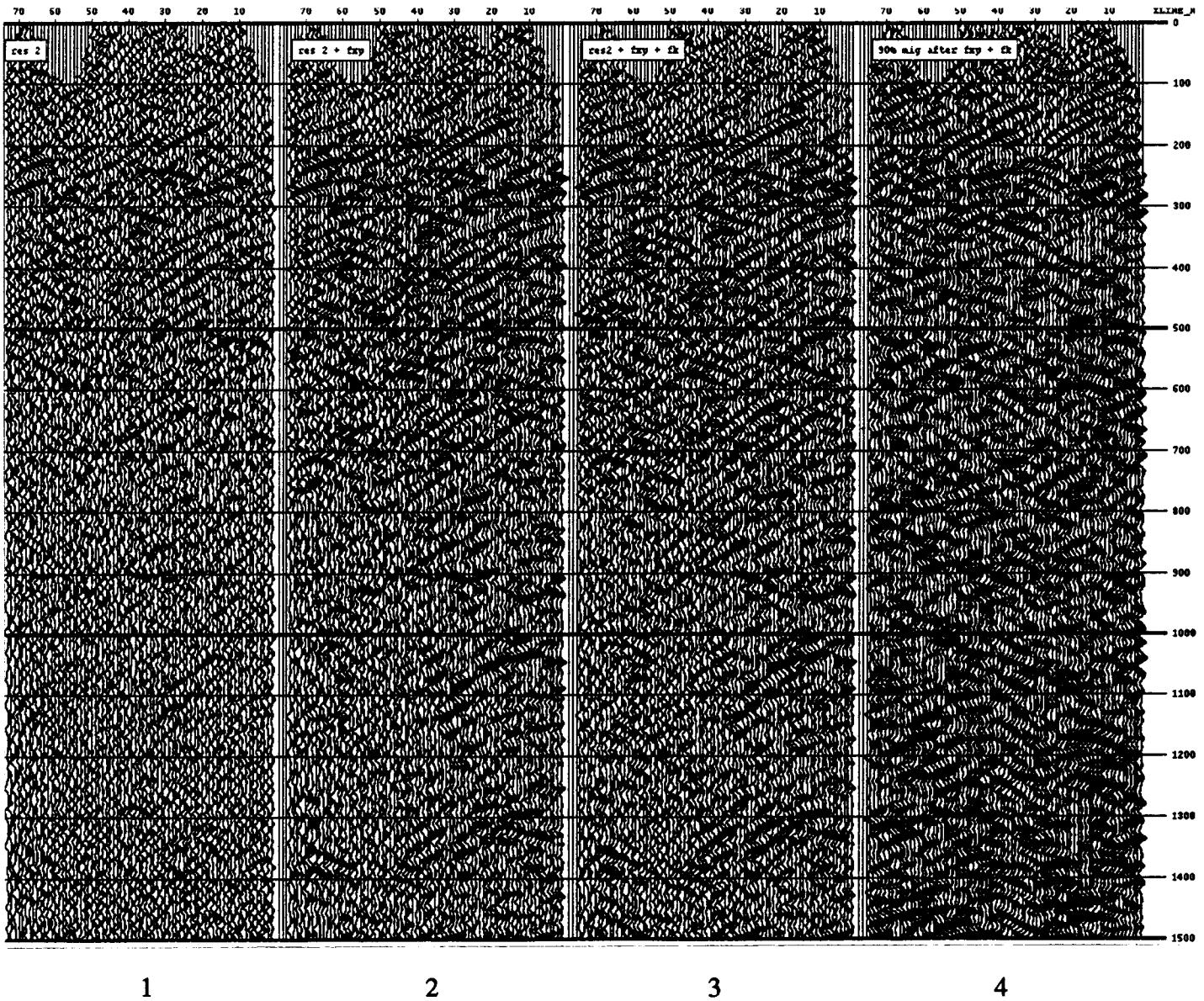


Figure 23. Test panels for inline I25:

- | | | |
|---------------|--------|---------|
| 1. | Filter | Display |
| 2. FXY | Filter | Display |
| 3. FXY FK | Filter | Display |
| 4. FXY FK Mig | Filter | Display |

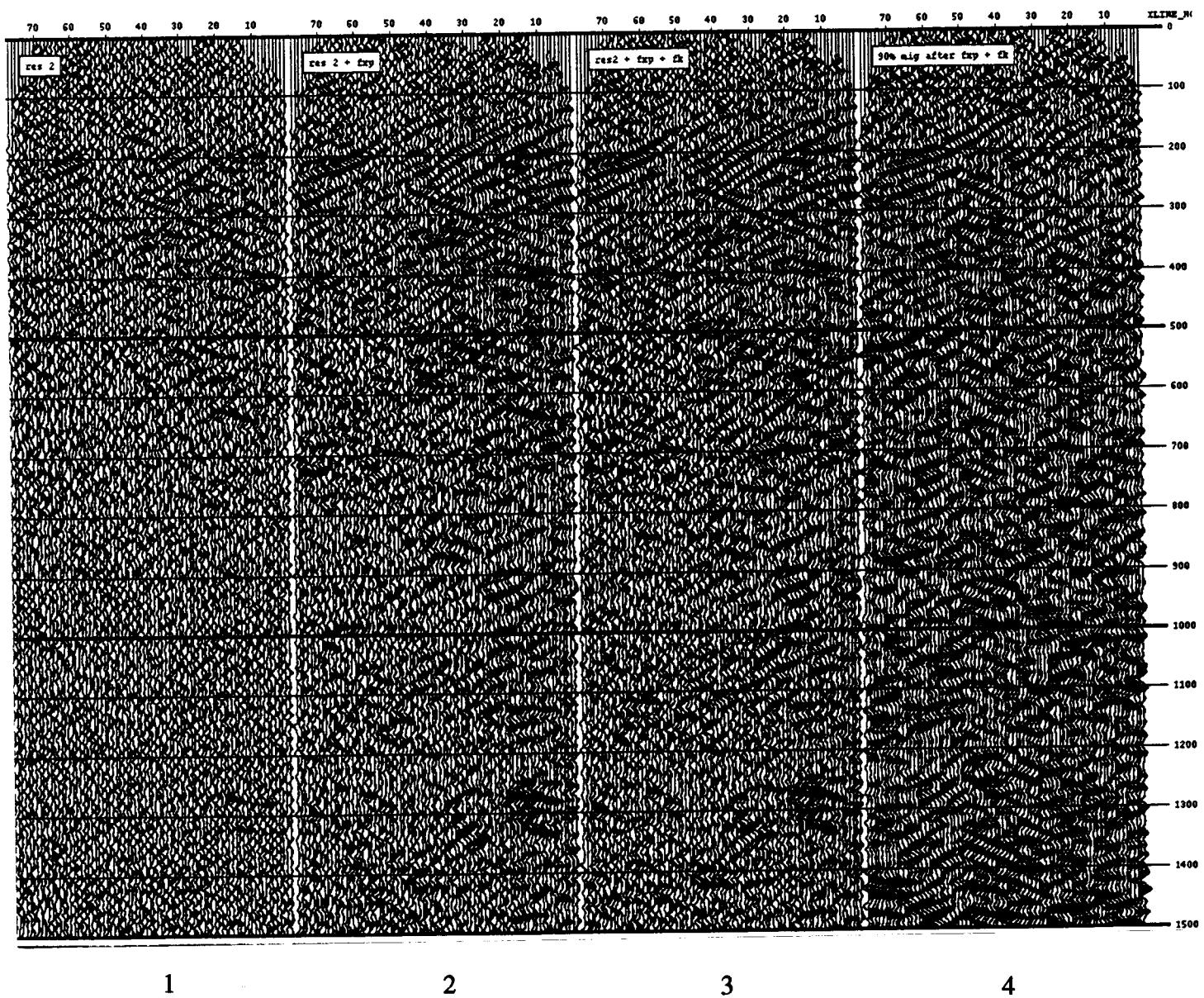


Figure 24. Test panels for inline I41:

1. Filter Display
2. FXY Filter Display
3. FXY FK Filter Display
4. FXY FK Mig Filter Display

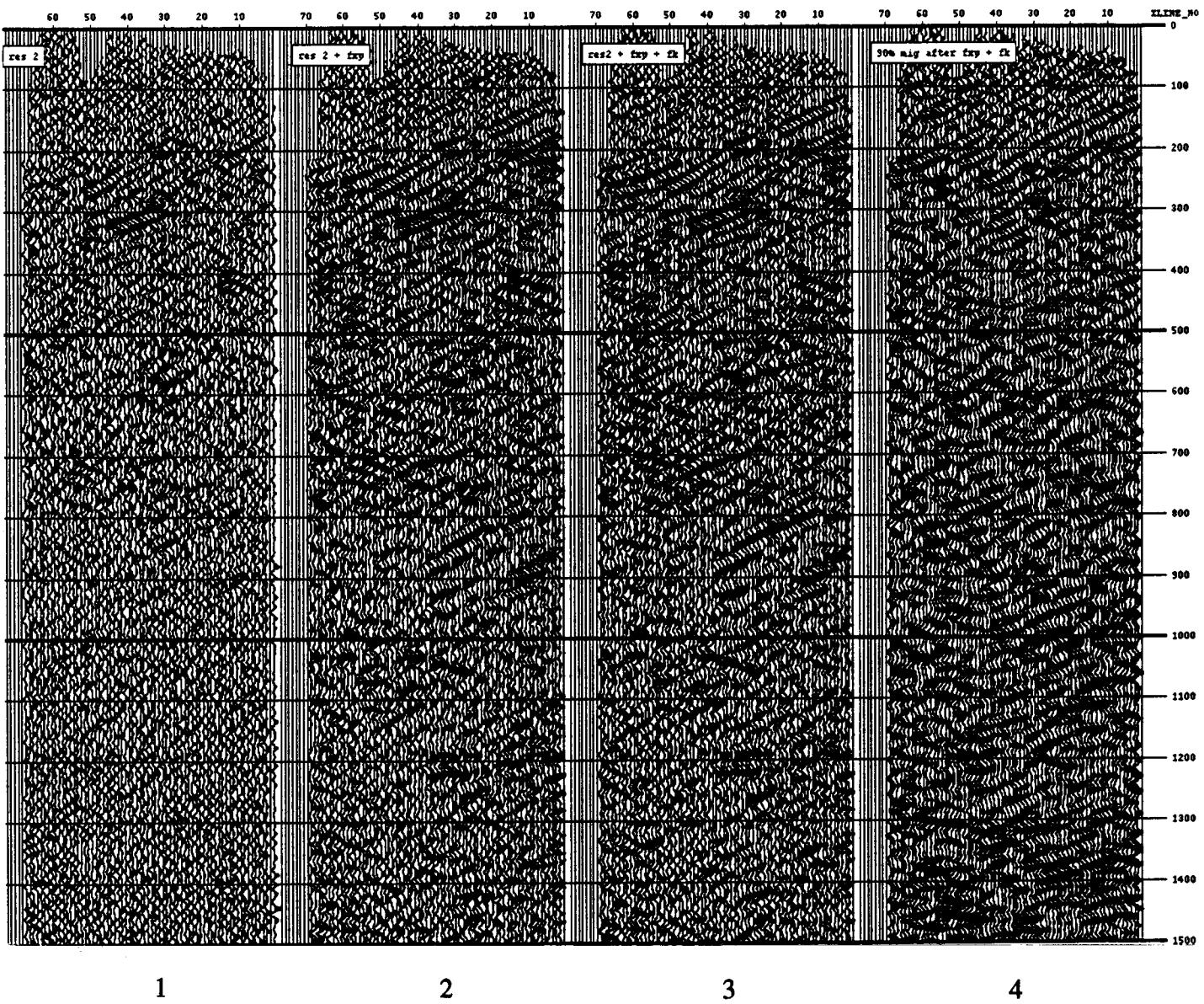


Figure 25. Test panels for inline I71:

- | | | |
|---------------|--------|---------|
| 1. | Filter | Display |
| 2. FXY | Filter | Display |
| 3. FXY FK | Filter | Display |
| 4. FXY FK Mig | Filter | Display |

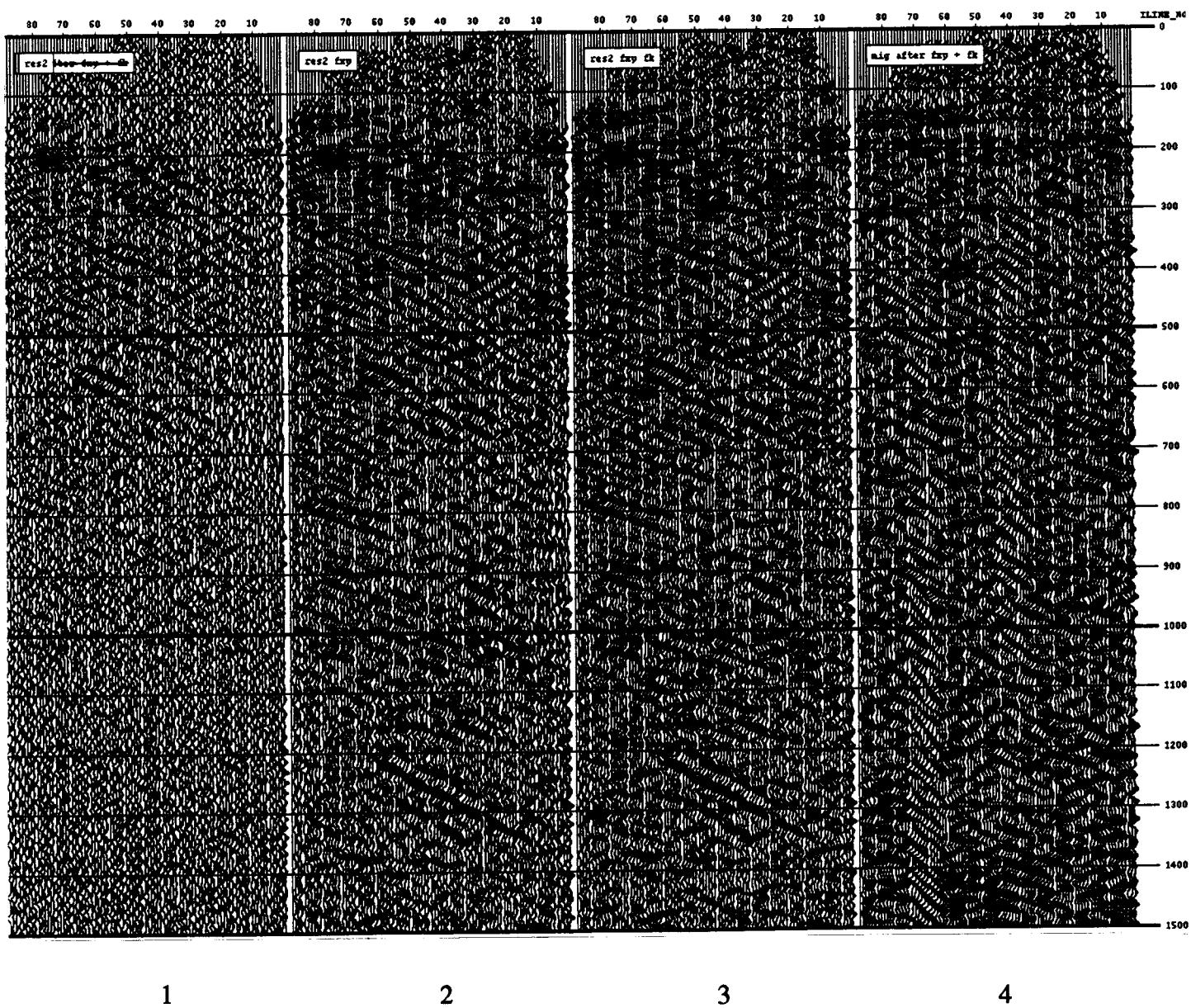


Figure 26. Test panels for crossline X12:

- | | | |
|---------------|--------|---------|
| 1. | Filter | Display |
| 2. FXY | Filter | Display |
| 3. FXY FK | Filter | Display |
| 4. FXY FK Mig | Filter | Display |

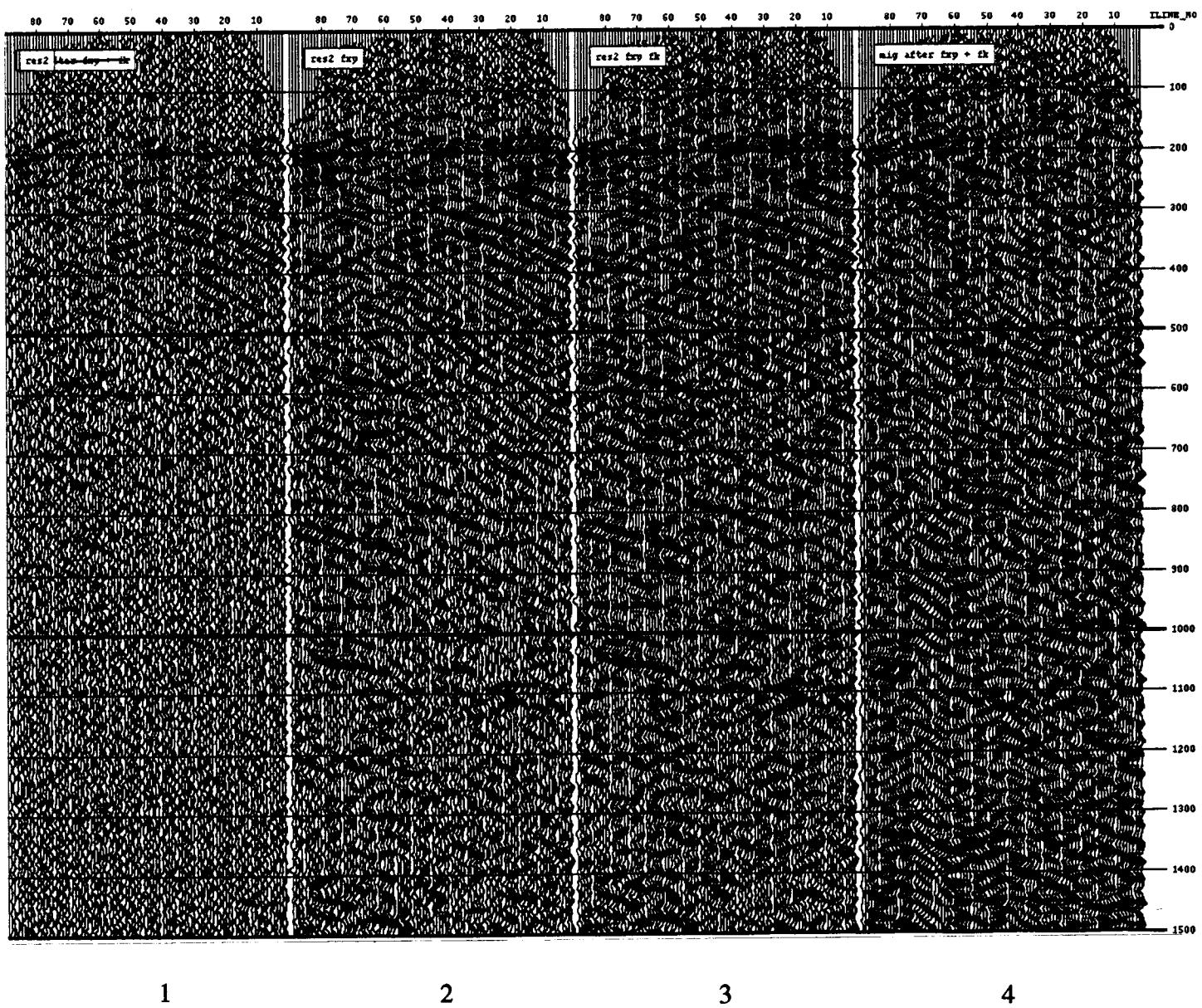


Figure 27. Test panels for crossline X30:

- | | | |
|---------------|--------|---------|
| 1. | Filter | Display |
| 2. FXY | Filter | Display |
| 3. FXY FK | Filter | Display |
| 4. FXY FK Mig | Filter | Display |

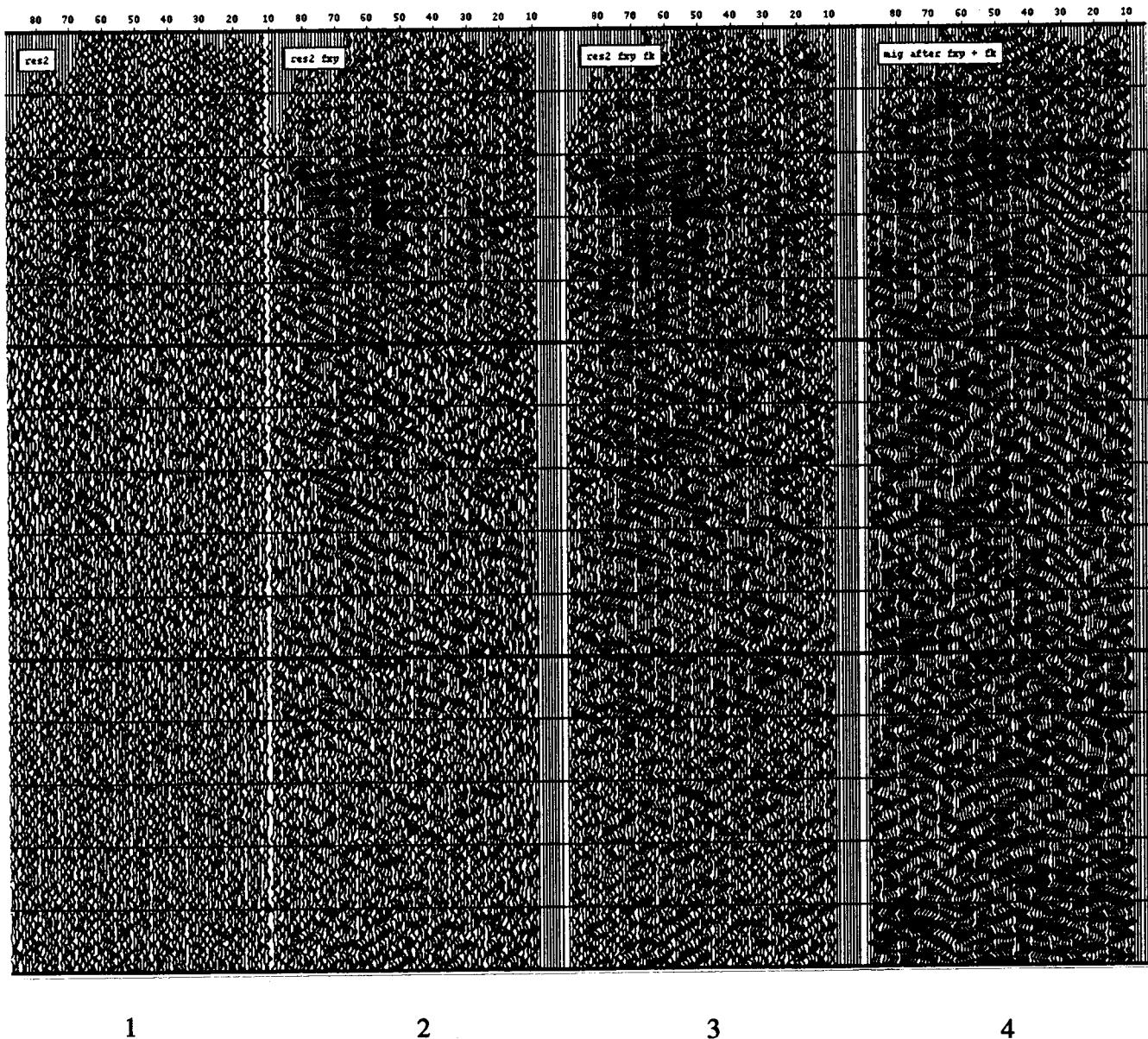


Figure 28. Test panels for crossline X51:

- | | | |
|---------------|--------|---------|
| 1. | Filter | Display |
| 2. FXY | Filter | Display |
| 3. FXY FK | Filter | Display |
| 4. FXY FK Mig | Filter | Display |

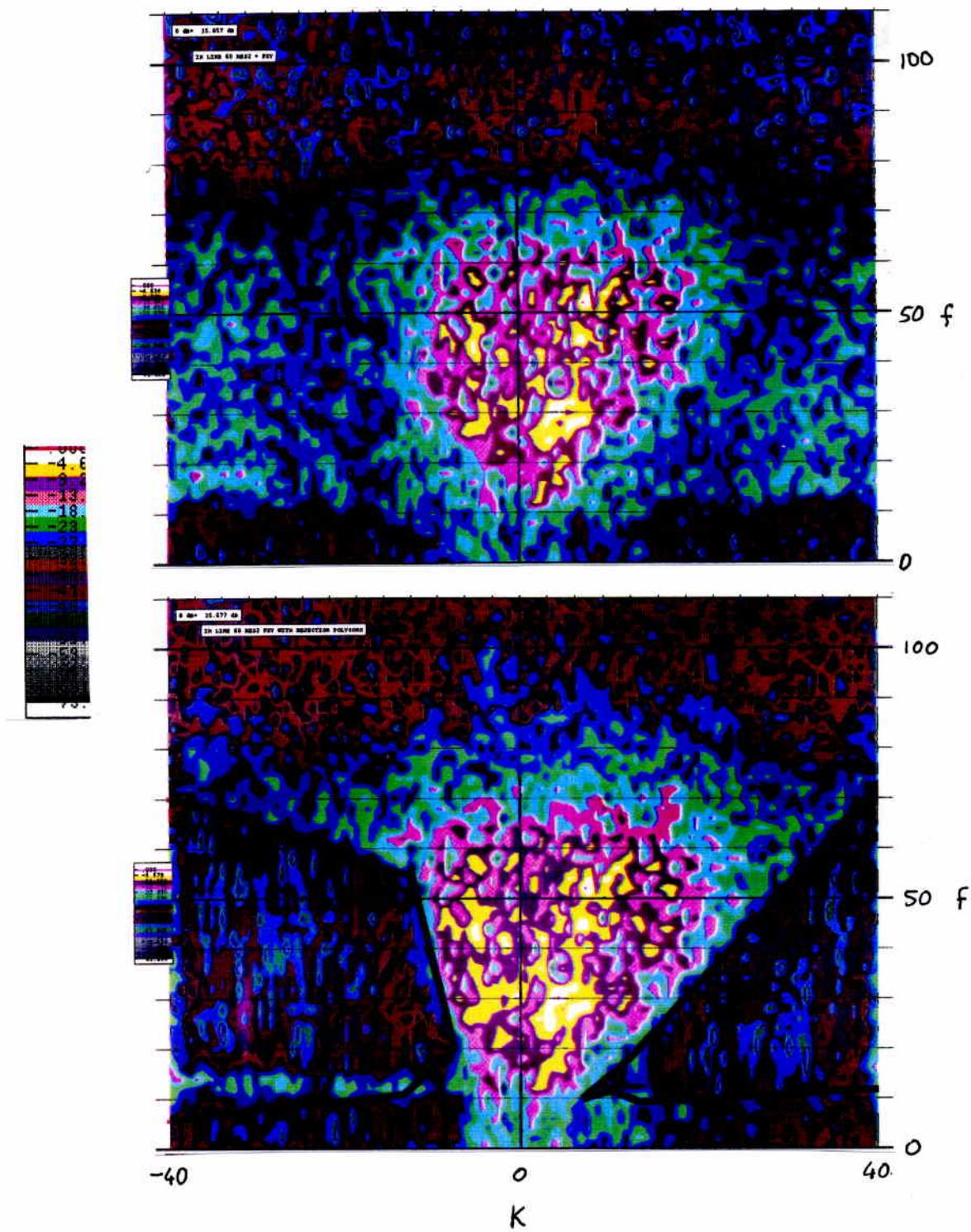


Figure 29. Post-stack F-K domain display.

Note: The two panels show before and after F-K filter application (upper and lower panels, respectively). Colour key is defined in the text.

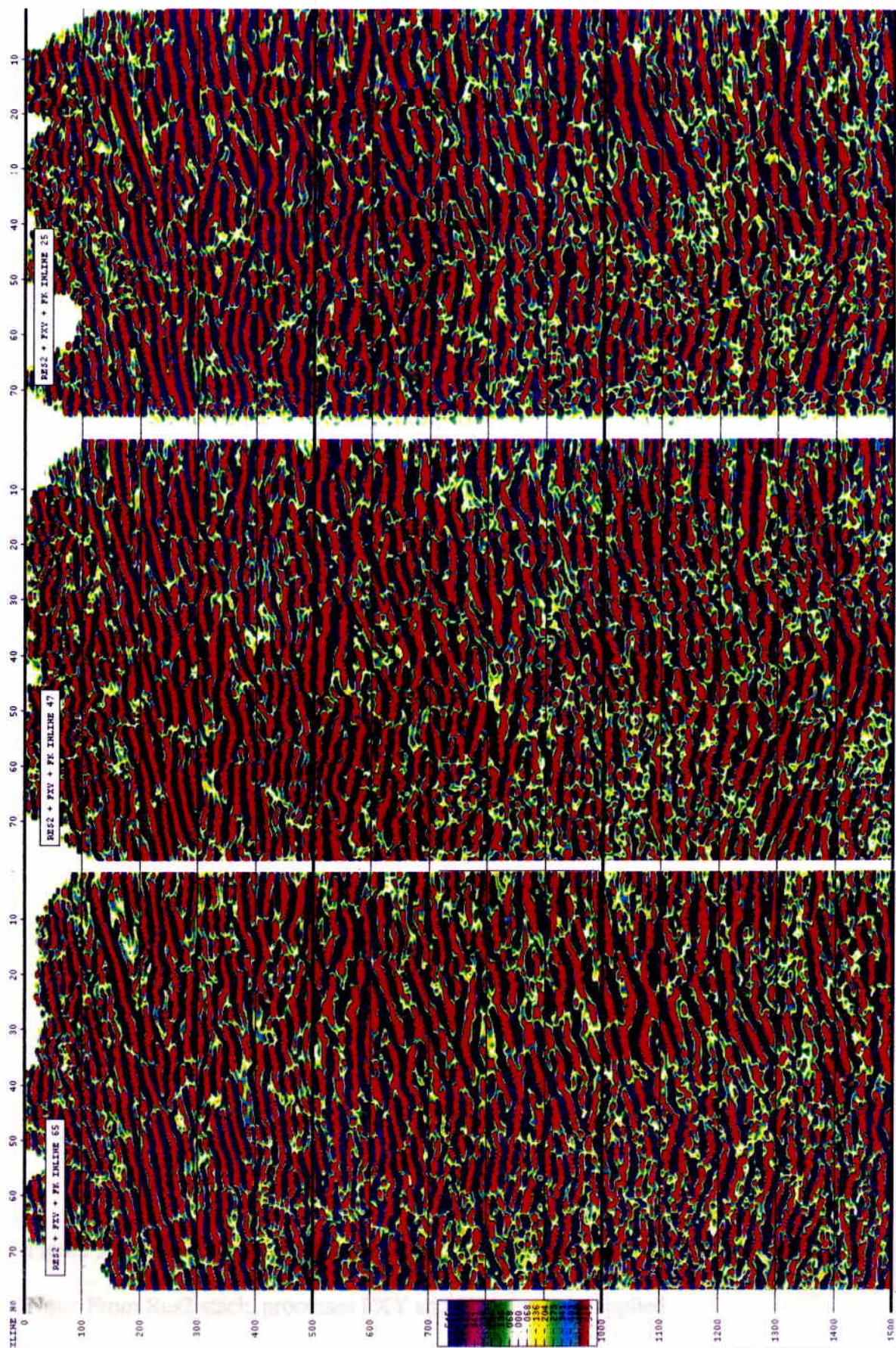


Figure 30. Colour amplitude display of stacked data for inlines 125, 147 and 165.

Note: From Res2 stack, processes FXY and FK have been applied.

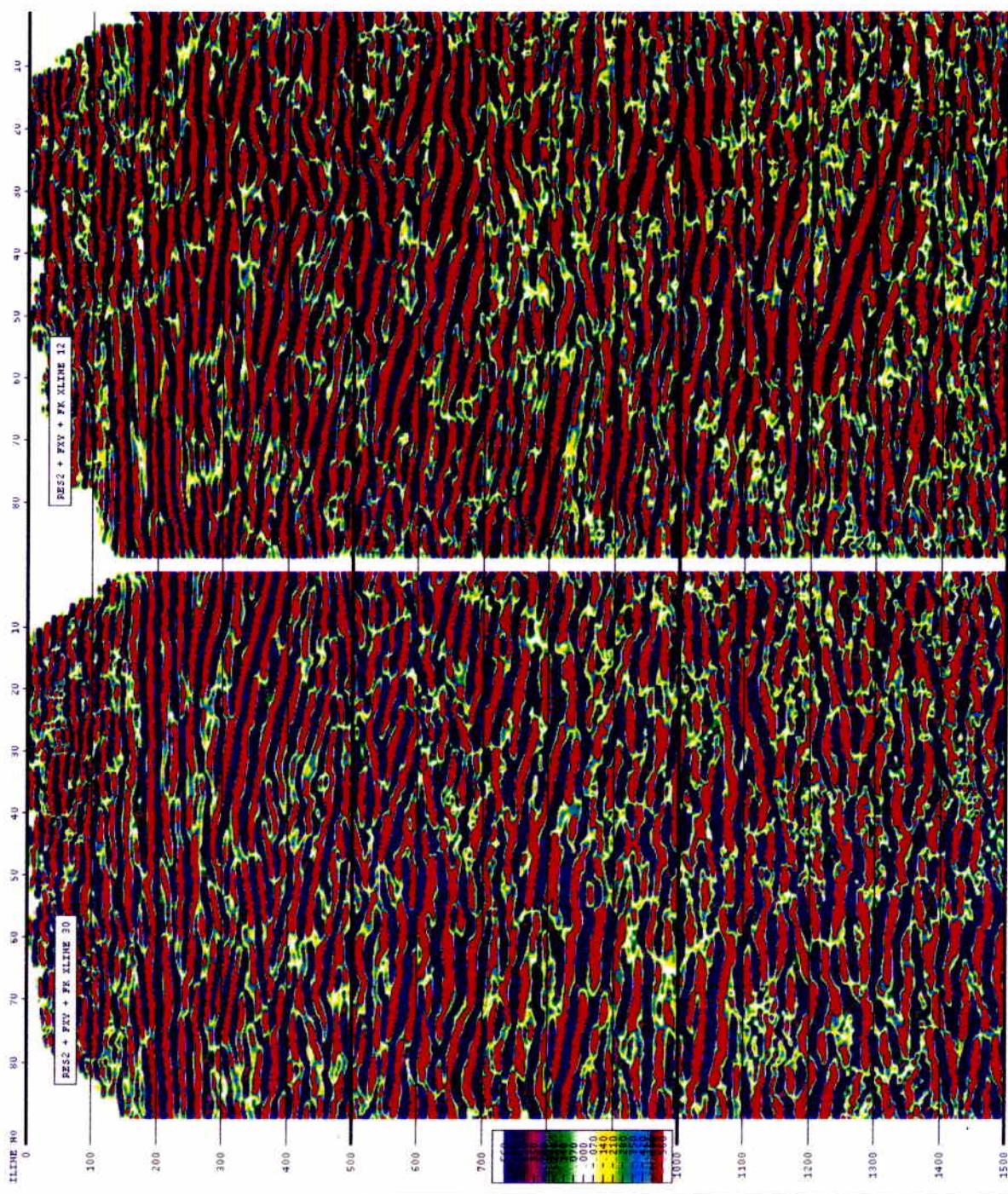


Figure 31. Colour amplitude display of stacked data for crosslines X12 and X30.

Note: From Res2 stack, processes FXY and FK have been applied.