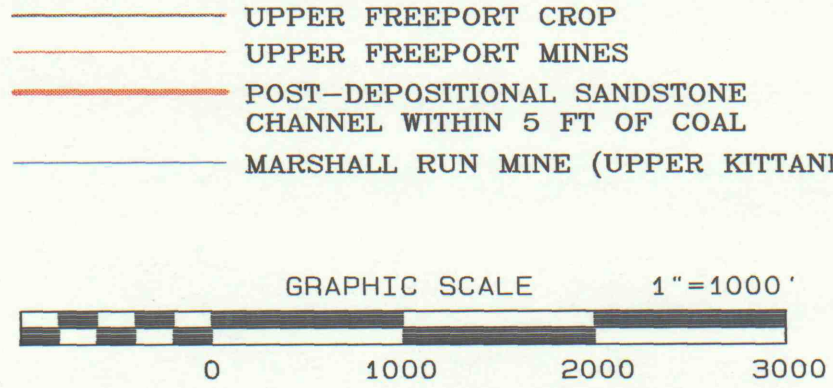
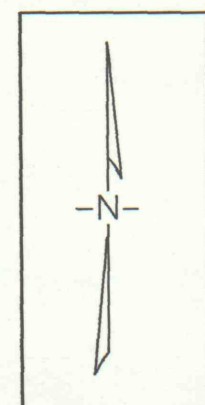
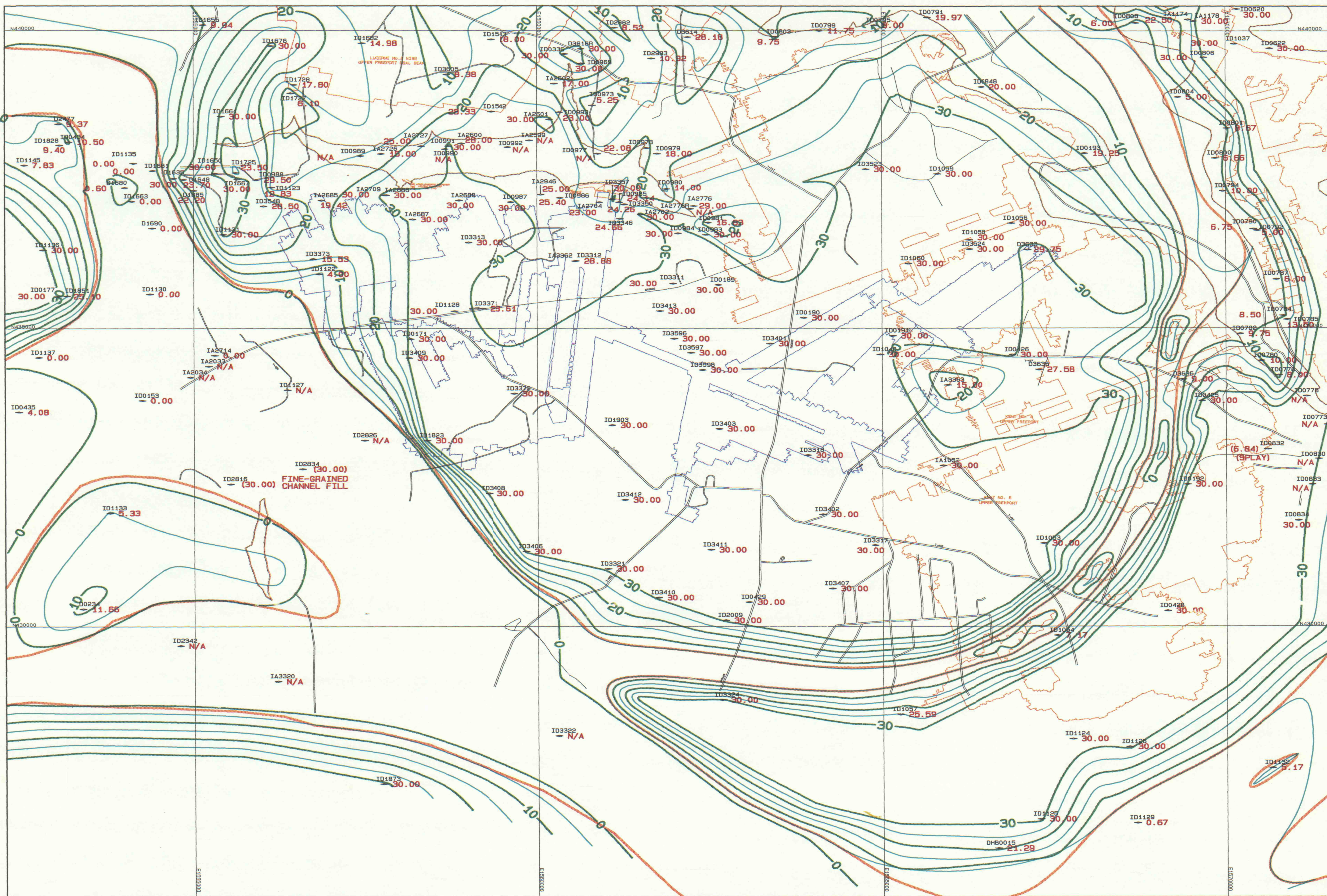




- UPPER FREEPORT CROP
- UPPER FREEPORT MINES
- POST-DEPOSITIONAL SANDSTONE CHANNEL WITHIN 5 FT OF COAL
- MARSHALL RUN MINE (UPPER KITTANNING)

30.00 THICKNESS OF SHALE IN FEET FROM THE TOP OF THE COAL TO THE BASE OF FIRST SANDSTONE 1 FT THICK OR GREATER WITHIN THE FIRST 30 FEET ABOVE THE COAL. THE UPPER SPLIT IS EXCLUDED WHERE THE INTERVAL TO THE UPPER SPLIT IS GREATER THAN 6 INCHES.

UPPER FREEPORT SEAM
MARSHALL RUN AREA
SHALE THICKNESS MAP

IMAPS#09764