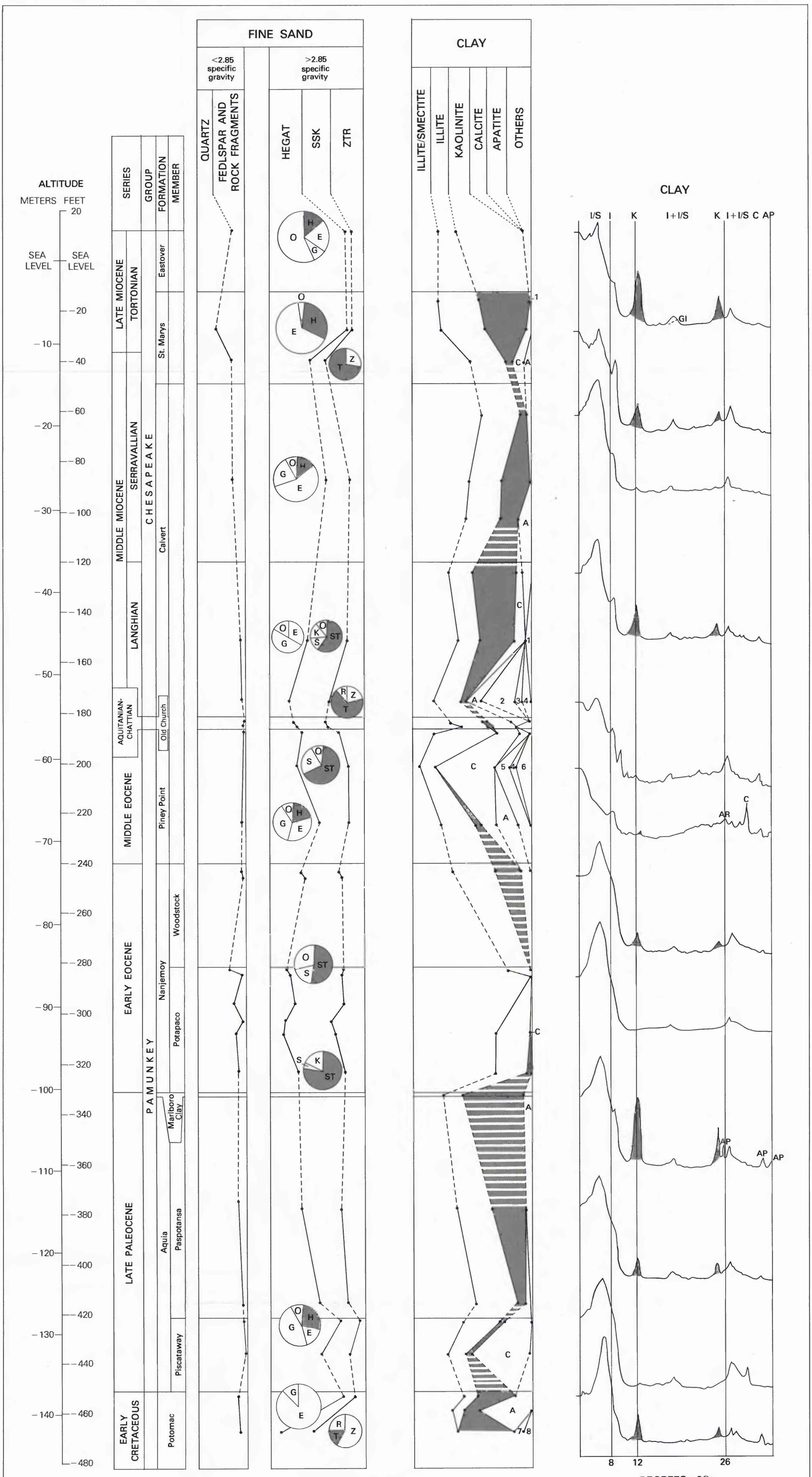

EXPLANATION

Light (specific gravity <2.85) and nonopaque heavy (specific gravity >2.85) minerals were determined for the fine sand fraction by grain mounts on a petrographic microscope. Clay-size minerals were determined by X-ray diffraction. Data are from table 1. Sample depths are shown as filled circles. Hornblende, tourmaline, staurolite, and kaolinite are shaded to aid in text discussion. Broken lines and fields represent inferred mineralogic trends.

- H hornblende
- E epidote
- G garnet
- S sillimanite
- ST staurolite
- K kyanite
- Z zircon
- T tourmaline
- R rutile
- O other minerals (see table 1)

- A apatite
- C calcite
- 1 gibbsite
- 2 9 angstroms
- 3 8 angstroms
- 4 cristobalite
- 5 aragonite
- 6 gypsum
- 7 feldspar
- 8 goethite

- I/S illite/smectite mixed-layer clay
- I illite
- K kaolinite
- C calcite
- AP apatite
- AR aragonite
- Gl gibbsite

SELECTED MINERALOGIC TRENDS IN THE HAYNESVILLE, VIRGINIA, CORE