UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PROFESSIONAL PAPER 1263
PLATE 2

EXPLANATION

COUNTS PER SECOND

- Greater than 300
- 275–299
- 250–274
- 225–249
- 200–224
- 175–199
- 150–174
- 125–149
- 100–124
- 75–99
- 50–74
- 25–49
- Less than 24

Radioactivity contours—Showing net intensity in counts per second after removal of cosmic component and adjustment for deviations from surveying altitude. Hachured to indicate areas of lower radioactivity. Contour interval 25 counts per second

Flight path—Showing location and spacing of data. Flight-line spacing one mile. Flown at 500 feet above ground in an east-west direction

EXPLANATION

250 counts per second contour—Hachures point to lower count rate

Ground-data locality—Values in μr*

AG78N Sediment sample (see Table 1 for analyses) and radiometric sample (see Table 3)

(17) Both 17 μr values are manmade anomalies such as rock road surfaces, concrete ponds, and stacked culvert (concrete) pipes

*The International Atomic Energy Agency (1976) has replaced all previous measures of crustal radiation intensity with the "Radioelement Unit" (μr), defined as the radiation measured from a source containing 1 ppm uranium in equilibrium, and equivalent to 0.6 μR/hr.

INSET A—Map illustrating failure of ground data to locate anomalously radioactive sediment in an area used for agricultural purposes. In the area west of Lake Drummond Church, farmlands (cleared areas on map) are fertilized by 600 pounds of 5% nitrate, 30% potash, and 30% phosphate per acre several times a year (depending on crop type) particularly in late fall and early spring

0 ½ 1 2 MILES
0 .5 1 2 3 KILOMETERS

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

SCALE 1:250 000

5 0 5 10 15 20 25 MILES
5 0 5 10 15 20 25 30 35 KILOMETERS

CONTOUR INTERVAL 30 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Base from U.S. Geological Survey
Eastville, 1969; Norfolk, 1969; and Richmond, 1973

Modified from data flown and compiled by LKB Resources, Inc. Huntington Valley, PA. 1975–76

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TOTAL-COUNT CONTOURED GAMMA-RAY AERORADIOMETRIC MAP OF THE OUTER COASTAL PLAIN OF VIRGINIA