Figure 16. Reflection seismic line St. M-3 (VP 340 to VP 525) showing the St. James seismic anomaly

LINE 3 VP 350
VELOCITY TIME
6000. .000
7000. .400
7050. .525
7080. .650
7100. .710
7400. .800
8500. 1.500

VIBRATION POINTS (VP)

SOUTHEAST

340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525

1 MILE ½ MILE 0 500 1000 1500 2000 2500 FEET

ALTITUDE, IN FEET: 200 150 100 50 0

GROUND SURFACE

Vibroseis Line St M-3 (VP340 to VP525)

2-WAY TIME, IN SECONDS: 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

POTOMAC GROUP
(Discontinuous Reflectors)

"ST JAMES SEISMIC ANOMALY"

TOP-OF-BASEMENT

Poor Continuity

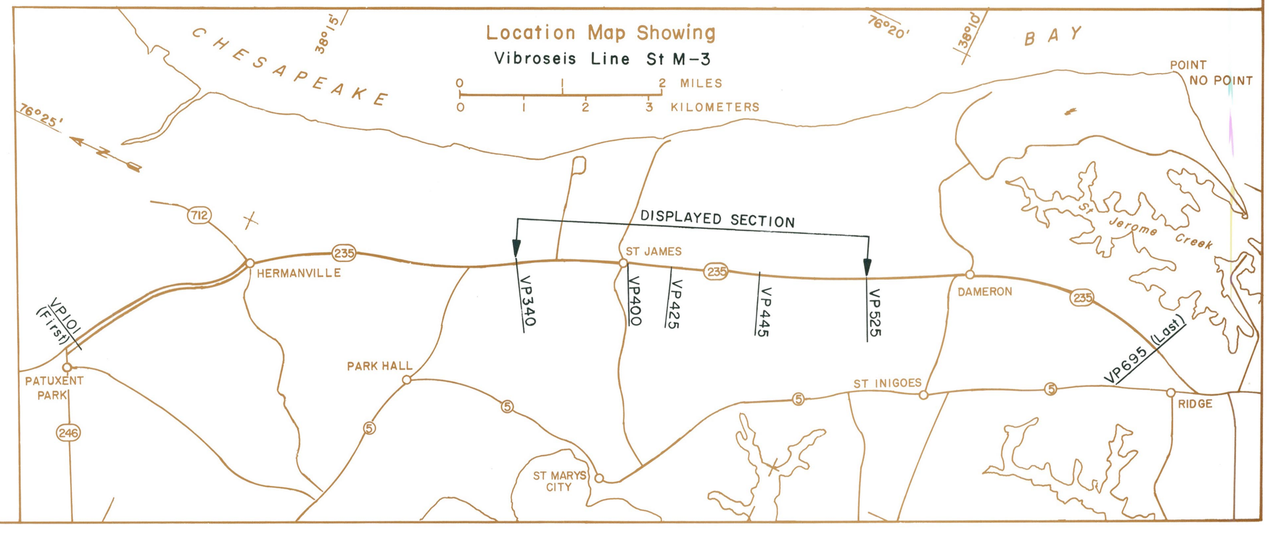
DISCONTINUOUS

Zone of Seismic Discontinuity separating an Offset in the Basement Reflection of about 125 feet.

RECORDING PARAMETERS

(Contractor – Seismograph Service Corp.)

Energy Source – 2 or 3 Vibrators
VP Interval – 200 Feet
Geophone Interval – 100 Feet
Offsets – 400-1500 Feet
Stack – 600 Percent
Sweep Length – 7 Seconds
Sweep Frequency – 80 to 20 Hz.
Number of Sweeps – 16

TIME – DEPTH FUNCTION

Z = 491 – 4230 t
Z = Depth in Feet to Top-of-Basement
t = 2-Way Time in Seconds