

Plate 1: Map Showing the Distribution and Sources of Geologic Data City of Alexandria and Vicinity

This map shows the distribution and sources of various types of surface exposures and subsurface data that were utilized to construct the geologic maps of Alexandria. Detailed information on the data and the process used to compile it can be found in the expanded explanation of plate 1 and the three accompanying databases.

Explanation

Surface Exposures (1-254)

Outcrop, located at the center of the symbol

Areally extensive exposure, landform, and/or natural community of geologic interest, located within shaded area

Excavation, size of symbol broadly represents extent of excavated area

Subsurface Data

Location of water well described by Johnston (1961, 1964). Solid triangles represent wells for which formation logs are available. The wells are identified using the same numbering scheme devised by Johnston (1964), in which each 7.5-minute topographic quadrangle is divided into 9 rectangles by lines drawn through the 2 ½-minute tic marks, and the wells within each rectangle are numbered consecutively.

Location of water well described by Johnston (1961, 1964) and used by Froelich (1985) to interpret the configuration of the bedrock surface and/or geology of the Potomac Formation.

Location of well or borehole shown by Froelich (1985) on small scale maps, for which no well log or other first-order descriptive information exist (1-29).

Location of water well described by Darton (1950) (1-30).

Location of geotechnical boring site from City of Alexandria files (1-65, 78-95). Multiple borings are typically present at each site. See original site report for information on the number, locations, and depths of individual borings.

Locations of large geotechnical boring sites from City of Alexandria files. A dozen or more individual borings are typically present at each site. The dots within the site show the layout of the borings only in a schematic fashion and do not necessarily represent exact boring locations within the site. See original site report for information on the number, locations, and depths of individual borings.

Locations of lines of bridge borings at interchanges along Shirley Highway (66-77). Each site typically contains a minimum of 20 individual borings, and many of the larger interchanges have several dozen.

Locations of fence diagrams generated by the VDOT website for the Woodrow Wilson Bridge project (96-111). There are hundreds of individual borings available in the project area shown in the violet-colored swath. The fence diagrams encompass the deepest and most descriptive borings along the project route; diagrams 96-109 are aligned end-to-end in one long cross section along the beltway. Two diagrams (110, 111) illustrate subsurface conditions across the Cameron Valley, parallel to Route 1 and Telegraph Road, respectively.

Cross Section Lines

Lines of cross sections shown in plates 2A-C, connecting individual data points. Cross section lines are color coded to allow them to be distinguished where they intersect on the map:

Northwest edge of city: Lincolnia – Rynex – Dora Kelley – Dowden Terrace – Barcroft Park

Across Holmes Run Valley: Beauregard x Armisted St - Winkler Nature Preserve

Shirley Highway

West central: Turkeycock Valley - Landmark – Buzzard Gap – Ft Ward – Shirlington

Near west: Bush Hill – Backlick Run - Holmes Run – Hospital – Seminary

Clermont Woods - Quaker Lane

South Van Dorn Street: Oakwood – Dora Kelley Park

Russell Rd – Commonwealth Ave: Old Town – Four Mile Run

Old Town West – Potomac Yards

Old Town East

Across lower part of Cameron Run: Huntington – Courthouse – Duke St

Southwest: Lincolnia – Landmark – Backlick Valley

Duke Street: Lincolnia – Old Town waterfront

Seminary Road: Dowden Terrace – Quaker Lane

King Street: George Mason Dr – Cameron Valley

Four Mile Run/Glebe Road: Barcroft Park – Potomac River

North Old Town: St Asaph – Potomac Yards – Del Ray

Capital Beltway: Route 1 west to city limits (see VDOT fence diagrams, above)

Other Map Information

Map Scale: 1:12,000 (1 inch = 1,000 feet)

Former gravel pits

2.5-minute tic marks, each quadrant labeled with Johnston's (1964) rectangle code for numbering wells