

WLS
COL 2.4-4

- LEGEND:**
- MW-1209 ● BEDROCK MONITORING WELL
 - MW-1218 ● SHALLOW MONITORING WELL
 - MW-1209A ● MONITORING WELL NEST
 - MW-1209 ● BEDROCK AND SHALLOW (A)

Datum: GCS North American 1983
Projection: NAD 1983 UTM Zone 17N
Topography Source: Sanborn, LLC, 2006

**WILLIAM STATES LEE III
NUCLEAR STATION UNITS 1 & 2**

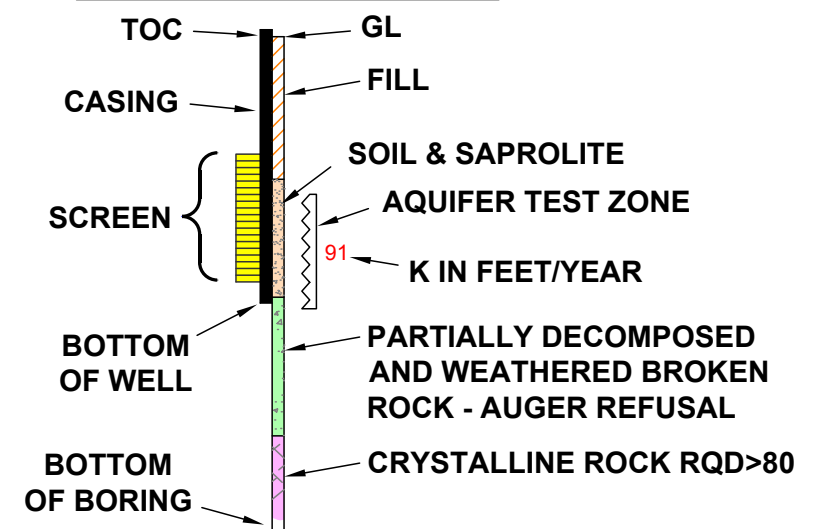
Cross Sections of Lee Nuclear Site:
Index Map

FIGURE 2.4.12-205 Rev 7
Sheet 1 of 4

HISTORICAL TOPOGRAPHIC DATA FROM USGS BLACKSBURG SOUTH SC QUADRANGLE MAP (DATED 1971).
 HISTORICAL WATER LEVEL DATA FROM CHEROKEE PSAR AND ER

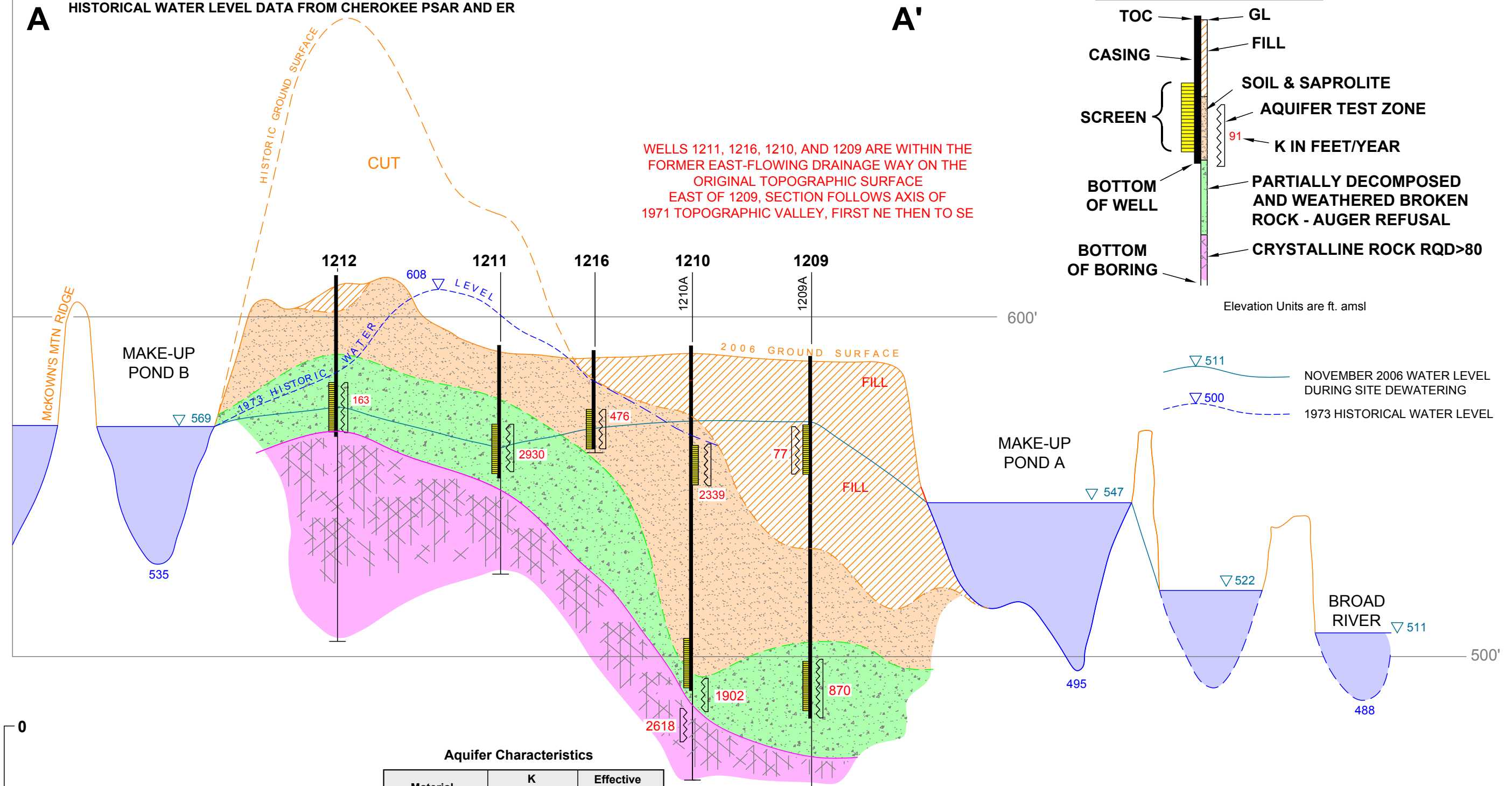
700' ELEVATION AMSL

WELL-BORING KEY



Elevation Units are ft. amsl

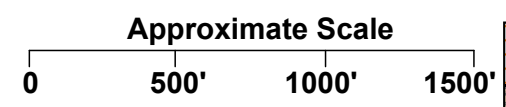
WELLS 1211, 1216, 1210, AND 1209 ARE WITHIN THE FORMER EAST-FLOWING DRAINAGE WAY ON THE ORIGINAL TOPOGRAPHIC SURFACE EAST OF 1209, SECTION FOLLOWS AXIS OF 1971 TOPOGRAPHIC VALLEY, FIRST NE THEN TO SE



▽ 511 NOVEMBER 2006 WATER LEVEL DURING SITE DEWATERING
 ▽ 500 1973 HISTORICAL WATER LEVEL

Aquifer Characteristics

Material	K (cm/s)	Effective Porosity
Fill Material	7.0×10^{-5}	9%
Soil and Saprolite	4.5×10^{-4}	20%
Partially Weathered Rock	1.4×10^{-3}	8%



THIS FIGURE ILLUSTRATES GENERAL HYDROLOGIC CONDITIONS AT LEE NUCLEAR SITE.

Well construction details are provided in Table 2.4.12-201.

WILLIAM STATES LEE III
 NUCLEAR STATION UNITS 1 & 2
 Cross Sections of Lee Nuclear Site:
 A - A'
 FIGURE 2.4.12-205 Rev 5
 Sheet 2 of 4

700' ELEVATION AMSL

Aquifer Characteristics

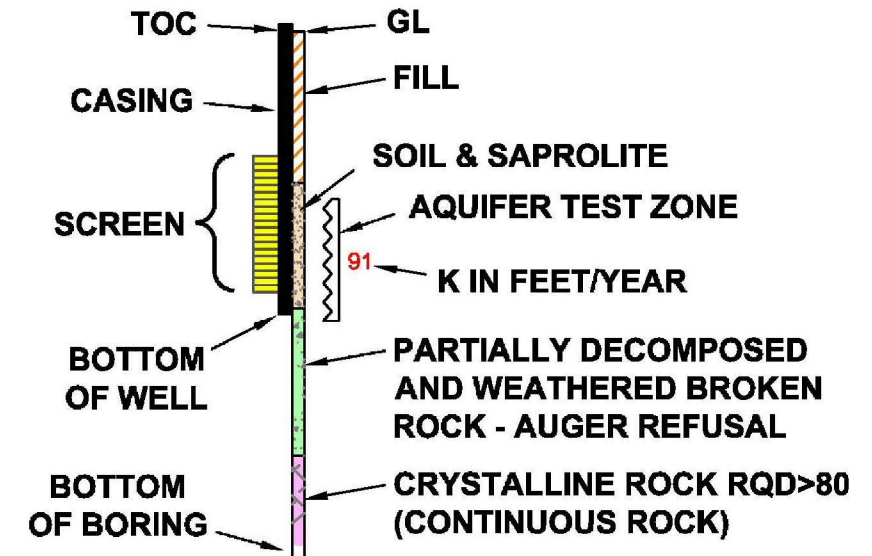
	Material	K (cm/s)	Effective Porosity
	Fill Material	7.0×10^{-5}	9%
	Soil and Saprolite	4.5×10^{-4}	20%
	Partially Weathered Rock	1.4×10^{-3}	8%

Groundwater exists at the site as a single undifferentiated aquifer, comprised of soils, saprolite, PWR, and competent bedrock. For conservatism, the calculation of potential contaminant transport velocities used the slightly higher hydraulic conductivity and the lower effective porosity values of PWR.

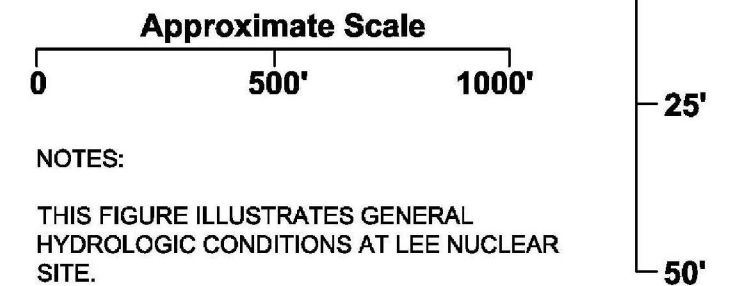
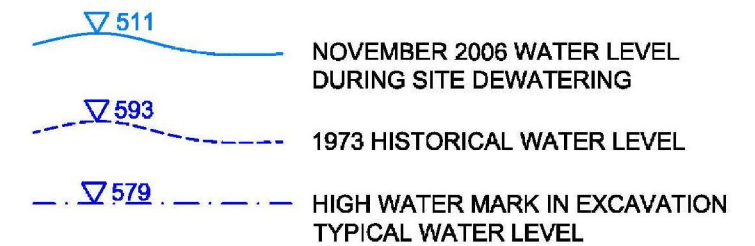
B

B'

WELL-BORING KEY



Elevation Units are ft. amsl



NOTES:
 THIS FIGURE ILLUSTRATES GENERAL HYDROLOGIC CONDITIONS AT LEE NUCLEAR SITE.
 DIFFERENCE IN VERTICAL AND HORIZONTAL SCALE RESULTS IN EXAGGERATED STRATIGRAPHIC ELEVATION CHANGES, ESPECIALLY IN AREAS OF HIGH DATA DENSITY.
 POST-CONSTRUCTION SURFACE TOPOGRAPHY IS SHOWN ON APPENDIX 9.1, FIGURE 4.

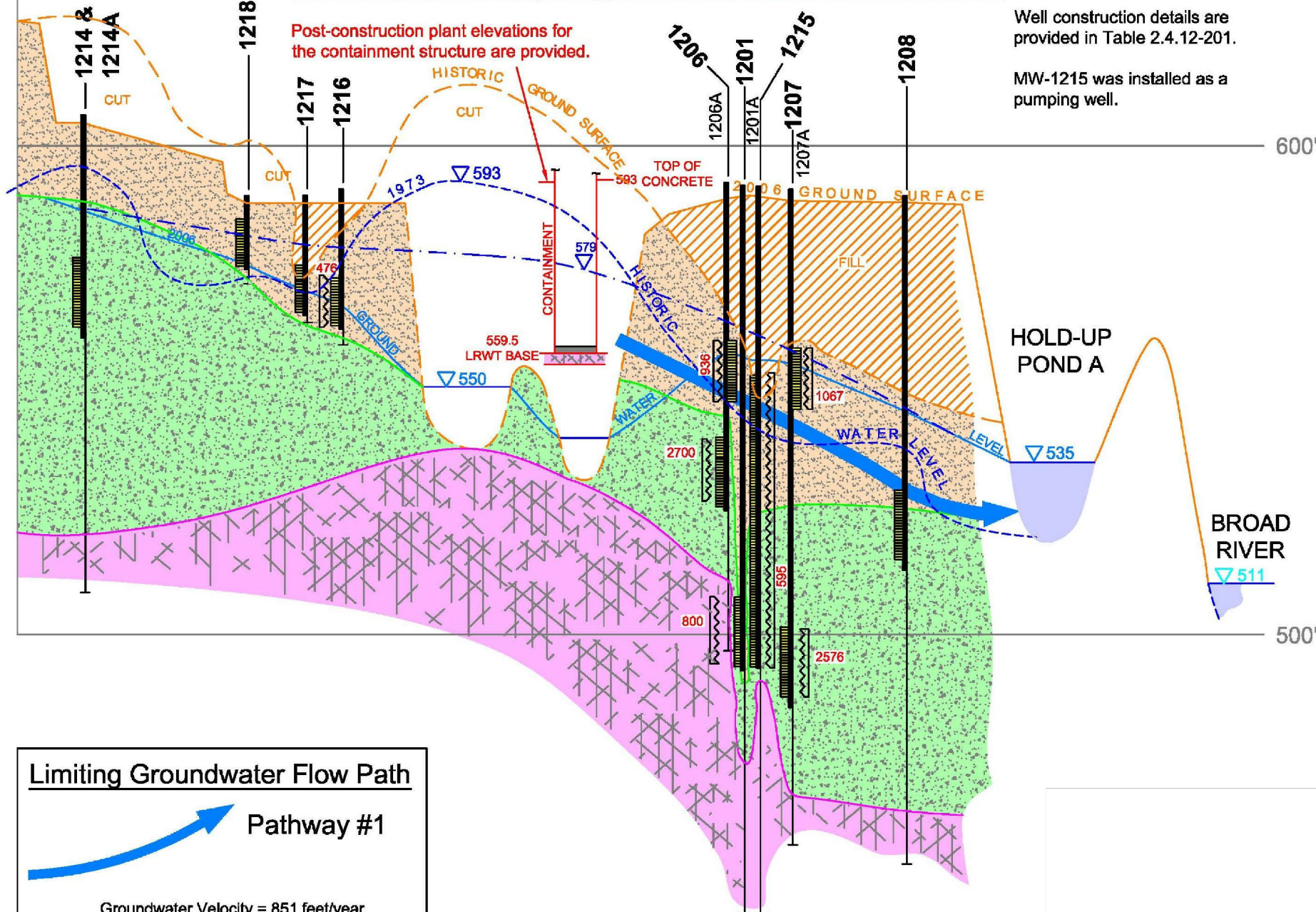
HISTORICAL TOPOGRAPHIC DATA FROM USGS BLACKSBURG SOUTH SC QUADRANGLE MAP (DATED 1971).
 HISTORICAL WATER LEVEL DATA FROM CHEROKEE PSAR AND ER

Unit 2 containment structure projected approx. 330 ft. west. Structure overlies continuous rock.

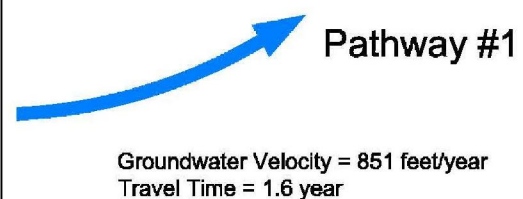
Post-construction plant elevations for the containment structure are provided.

Well construction details are provided in Table 2.4.12-201.

MW-1215 was installed as a pumping well.



Limiting Groundwater Flow Path



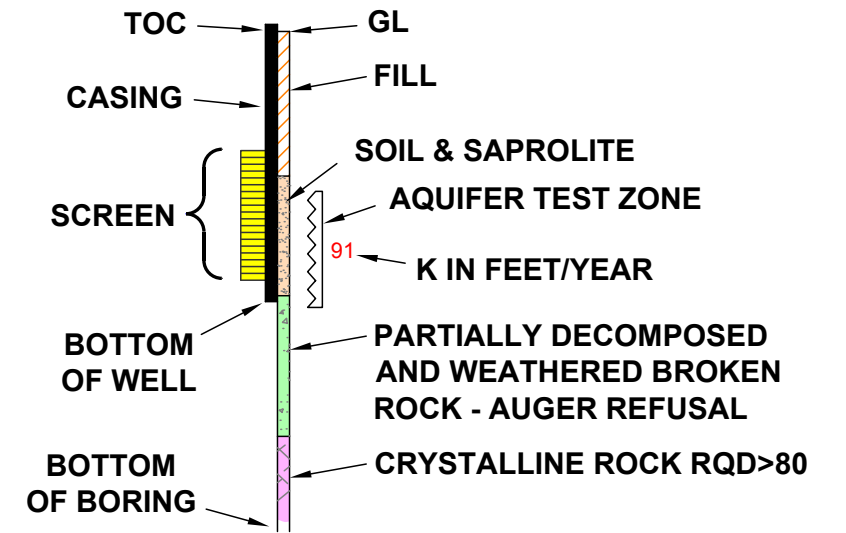
WELLS 1206, 1201, 1215, 1207 AND 1208 ARE WITHIN THE FORMER NORTH-FLOWING DRAINAGE WAY ON THE ORIGINAL TOPOGRAPHIC SURFACE

WILLIAM STATES LEE III
 NUCLEAR STATION UNITS 1 & 2

Cross Sections of Lee Nuclear Site:
 B - B'

HISTORICAL TOPOGRAPHIC DATA FROM USGS BLACKSBURG SOUTH SC QUADRANGLE MAP (DATED 1971).
 HISTORICAL WATER LEVEL DATA FROM CHEROKEE PSAR AND ER

WELL-BORING KEY



Elevation Units are ft. amsl

C'

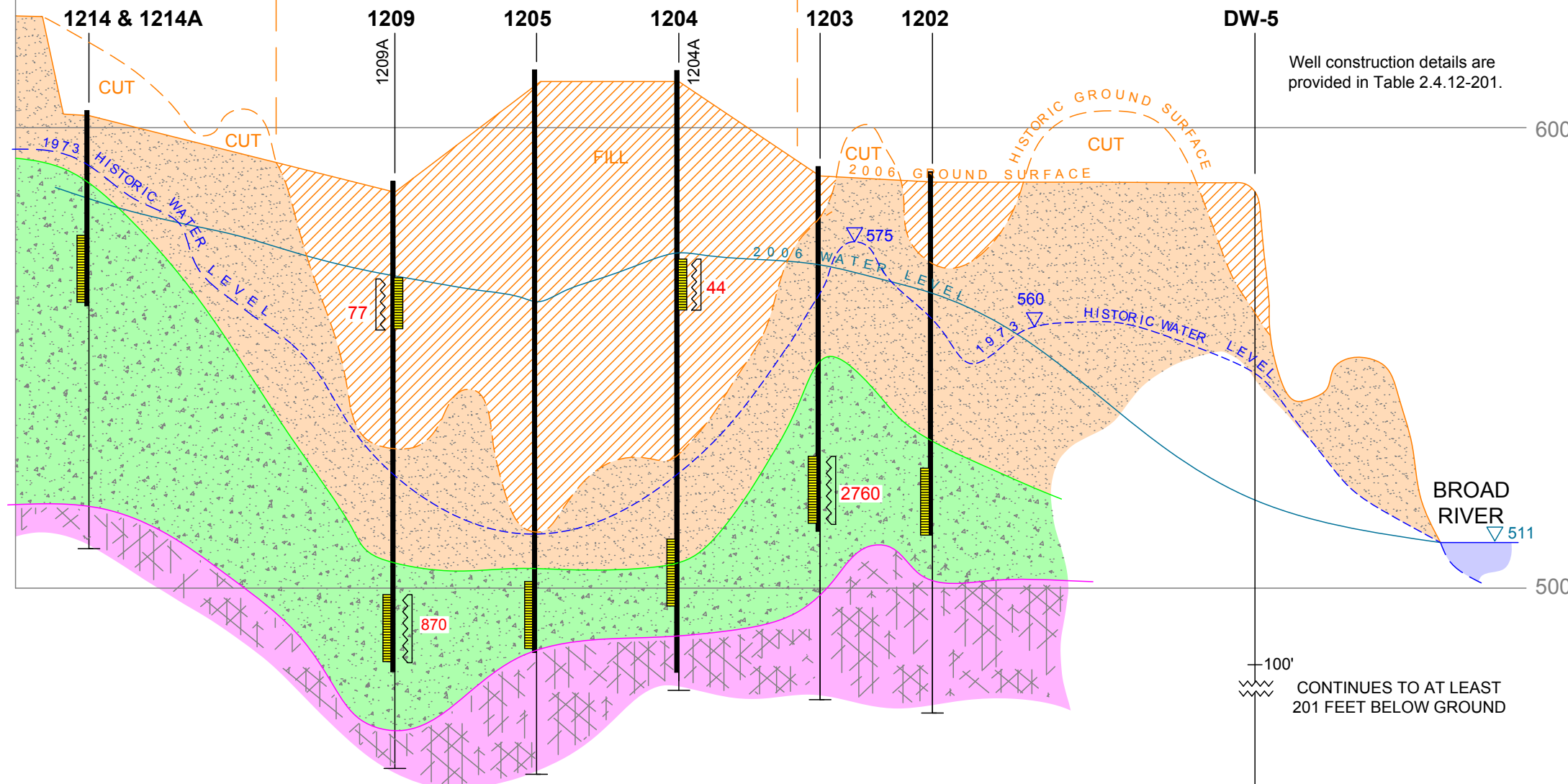
Aquifer Characteristics

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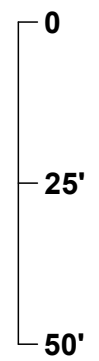
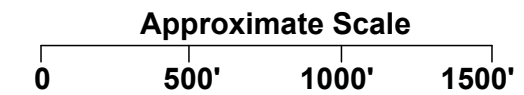
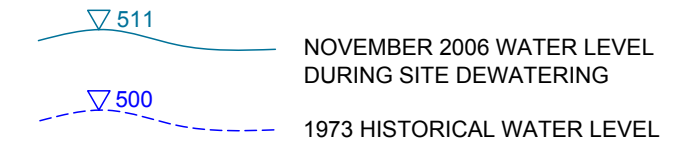
C

700' ELEVATION AMSL

FORMER NATURAL DRAINAGE FEATURE
 ORIENTED TO THE EAST



Well construction details are provided in Table 2.4.12-201.



THIS FIGURE ILLUSTRATES GENERAL HYDROLOGIC CONDITIONS AT LEE NUCLEAR SITE.

WILLIAM STATES LEE III
 NUCLEAR STATION UNITS 1 & 2

Cross Sections of Lee Nuclear Site:
 C - C'

FIGURE 2.4.12-205 Rev 5
 Sheet 4 of 4