APPENDIX D –
CCR MANAGEMENT UNIT
CROSS SECTIONS

Exhibit No.

D-1

Title

Cross-Section Transect Map

Client/Project

Tennessee Valley Authority
Watts Bar Fossil (WBF) Plant TDEC Order

Project Location

Spring City, Tennessee

175668050

Prepared by MB on 2022-07-12
Technical Review by MD on 2022-07-12

0 150 300 450 600 Feet

1:1,800 (At original document size of 22x34)

Legend

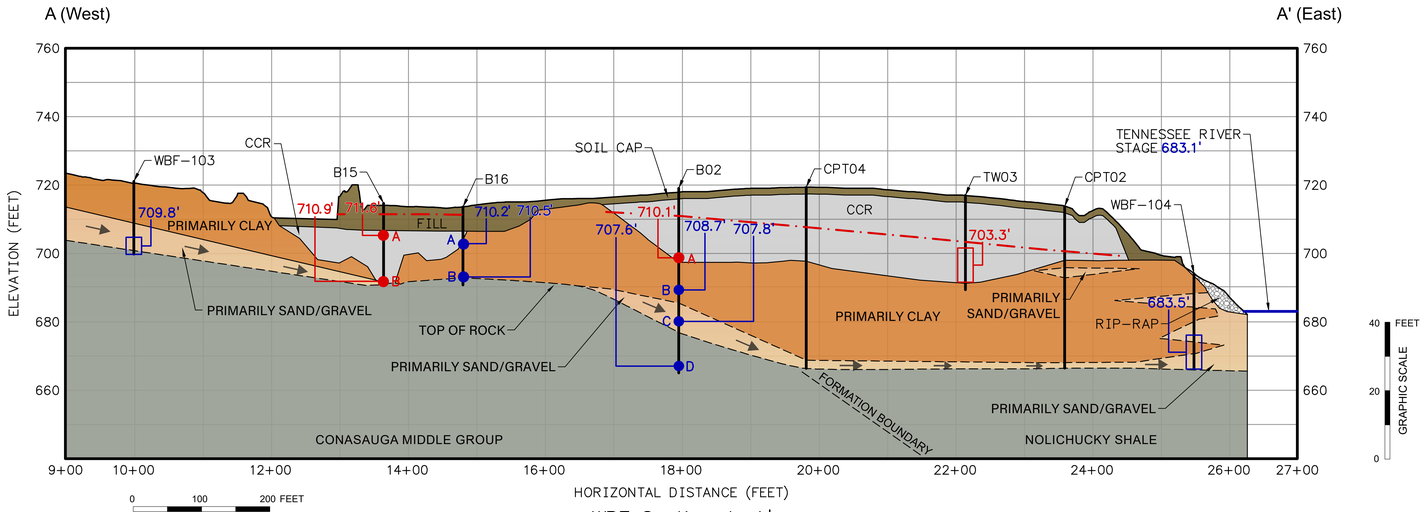
- Cross-Section Alignment
- Boring
- Cone Penetration Test
- Groundwater Investigation Monitoring Well
- Other Monitoring Well
- Piezometer, groundwater label in blue text, pore water label in yellow highlighted black text (e.g., WBF-B02C) (e.g., WBF-B02A)
- Temporary Well within CCR Material
- 2018 Imagery Boundary
- CCR Unit Area (Approximate)
- Closed Metal Cleaning Pond (Approximate)
- Consolidated and Capped CCR Area (Approximate)
- Drainage Improvements Area; Stormwater Pond (Former Ash Pond)

CCR: Coal combustion residuals

Notes

1. Coordinate System: NAD 1927 StatePlane Tennessee FIPS 4100
2. Imagery Provided by TVA (9/12/2018) and BING Imagery

Stantec TVA



WBF Section A–A'

Slag Disposal Area

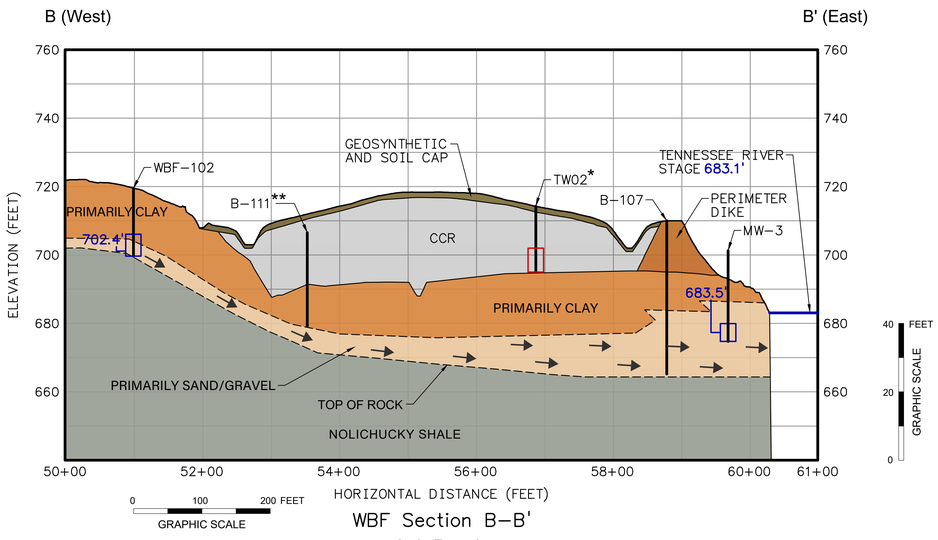
Screen interval showing pore water pressure expressed in feet of elevation (July 6, 2020)

Screen interval showing groundwater pressure expressed in feet of elevation (July 6, 2020)

Piezometer sensor showing pore water pressure expressed in feet of elevation (July 6, 2020)

Piezometer sensor showing groundwater pressure expressed in feet of elevation (July 6, 2020)

General Groundwater flow direction



WBF Section B–B'

Ash Pond

Screen interval showing pore water pressure expressed in feet of elevation (July 6, 2020)

Screen interval showing groundwater pressure expressed in feet of elevation (July 6, 2020)

General Groundwater flow direction

* When water was detected in TW02 it was within 0.1 feet of the base of the screen

** The top of the boring line at location B-111 corresponds to the ground surface elevation at the time of drilling.

Exhibit No.

D-2

Title

CROSS-SECTION - SLAG DISPOSAL AREA AND ASH POND

Client/Project

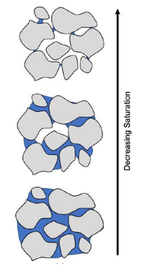
Tennessee Valley Authority
Watts Bar Fossil (WBF) Plant TDEC Order

Project Location

Spring City, Tennessee

175668050

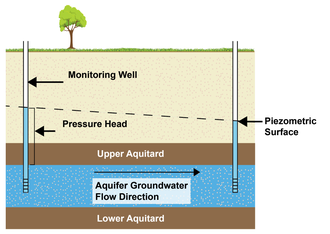
Prepared by KB on 2023-03-06
Technical Review by MD on 2023-03-08
Revised by KB on 2023-09-28



This figure depicts how subsurface water occurs in the pore spaces in CCR material (referred to as "pore water" in this EAR), and how saturation varies within the CCR material. The phreatic surface is the surface of pore water at which pressure is atmospheric and below which CCR material may be saturated with pore water.

Groundwater is subsurface water that occurs in pore spaces in soil or bedrock. Groundwater generally flows much more slowly than in surface stream or river water.

Figure Reference: Benson, C., Water Flow in Coal Combustion Products and Drainage of Free Water, Report No. 3002021963, Electric Power Research Institute , Palo Alto, CA.



Groundwater is subsurface water that occurs in pore spaces in soil or bedrock. In a confined aquifer, measured groundwater levels rise above the top of the aquifer, but the actual level of groundwater is constrained by the upper aquitard. The difference between the measured groundwater level within the aquifer and the top of the aquifer is called the pressure head. Because the level of groundwater within a confined aquifer is constrained by the upper aquitard, groundwater in a confined aquifer is not in contact with the geologic unit located above the upper aquitard. The aquitard physically separates them. Groundwater level measurements are used to estimate directions of groundwater movement. Groundwater generally flows much more slowly than water in a surface stream or river.

Notes

1. Elevations are in feet amsl
2. Cross sections may be at a different scale then the transect in Exhibit D-2. Distance markers are consistent and may be used as a reference.

Stantec

TVA