In the study area, the effective solubility of TCE is 11,000 ppb. The EPA NAPL boundary has been informed by the USGS groundwater flow models, which show that TCE is migrating through the bedrock fracture system. The USGS used dye testing and geophysical techniques to understand the subsurface hydrogeology and contaminant movement.

There are NE striking joints and foliation parting fractures that together form a pathway of interconnected features for contaminated groundwater, are known to flow toward the Rice property and to wells located at 14 Chapel Hill Church Road and in the Oaks subdivision. Numerous N/NE striking joints and foliation parting fractures that together form a pathway of interconnected features for contaminated groundwater, are known to flow toward the CTS facility.

The wells installed in the overburden contain saprolitic material (weathered material that has not been disturbed in which the parent rock structure remains) in which quartz and weathered mylonite veins are present. The wells have been constructed using that concentration. Other NAPL indicators include membrane interface probe (MIP), Laser Induced Fluorescence (LIF), and dye testing. These were done in a limited area.

Within the overburden and bedrock there is also a dissolved phase groundwater contamination as dissolved TCE and NAPL in overburden and fractured bedrock. The Rose Diagrams show the subsurface fracture orientations as informed by the USGS Boring Logs. The Rose Diagrams are a composite of all the logged fractures at different depth. The orientations are represented by the dark blue bars and indicate that there are consistent fracture sets that have the ability to be pathways for both NAPL and dissolved groundwater contaminant.

The CTS Water Level map was not included on the Cross section. This indicates that there are consistent subsurface fracture sets that have the ability to be pathways for both NAPL and dissolved groundwater contaminant.

The CTS site has been selected as one of the sites for the Fourth International Conference on Remediation of Chlorinated and Recalcitrant Compounds (ICRCCR). The data used to inform this cross section is presented in the North Carolina Remedial Investigation, the EPA NPL Listing Investigations, and the Remedial Investigation of the former CTS facility. The data used to inform this cross section is presented in the North Carolina Remedial Investigation, the EPA NPL Listing Investigations, and the Remedial Investigation of the former CTS facility.