

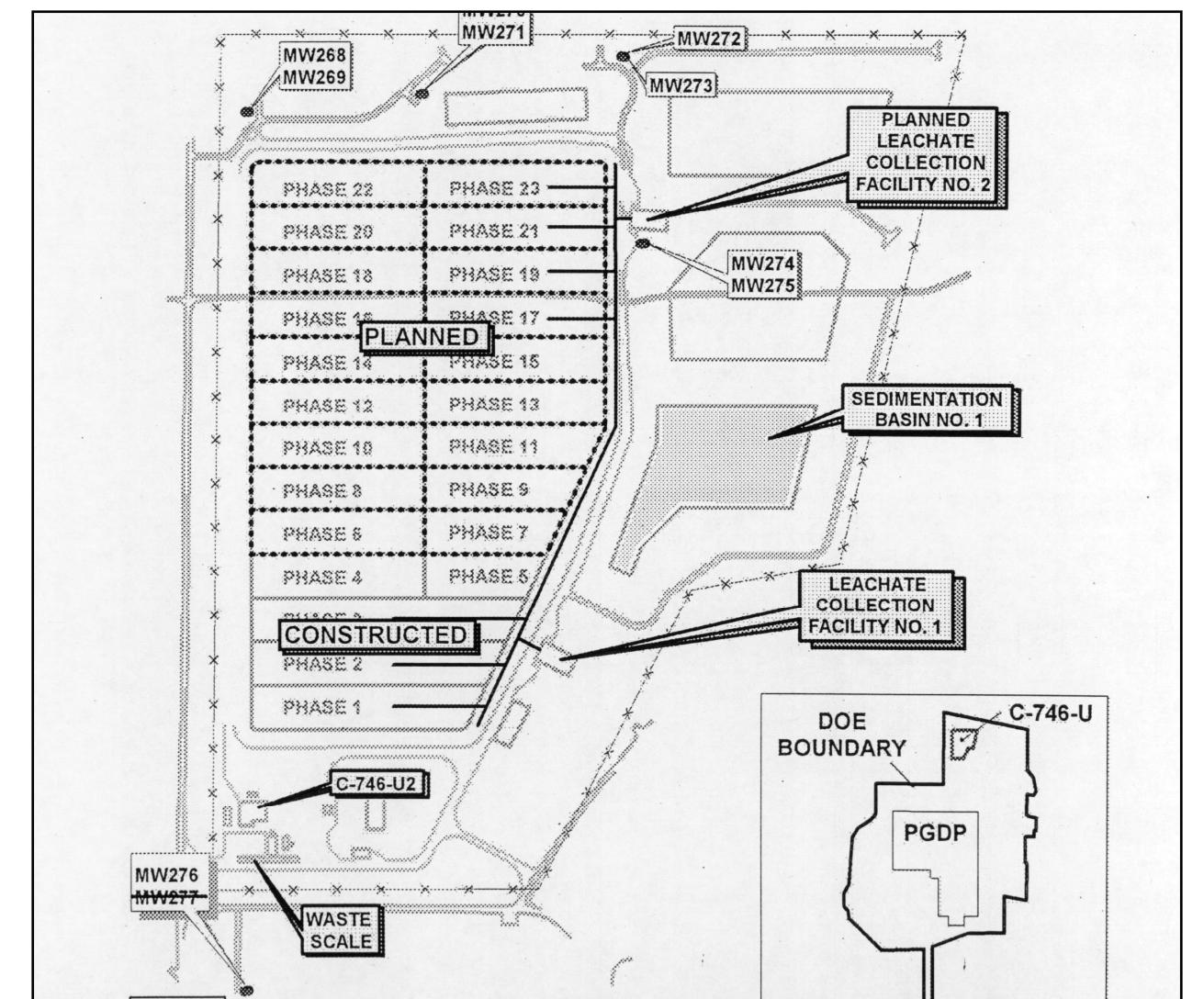
Holocene Displacement Project

Paducah Gaseous Diffusion Plant C-746-U Landfill

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Purpose

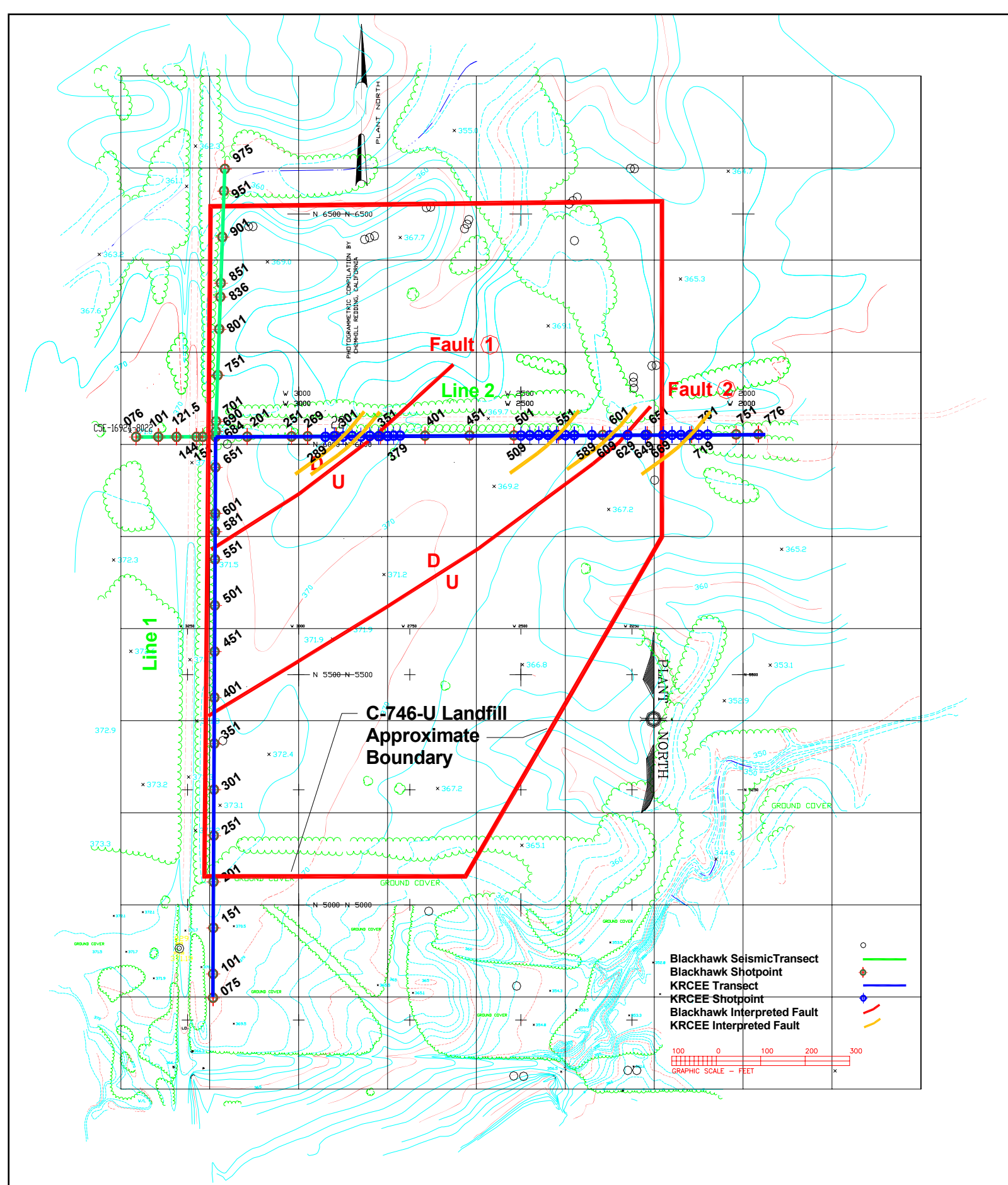
- Determine if displacement of Holocene-aged material has occurred at C-746-U Landfill
- Support permitting of C-746-U Landfill expansion for PGDP remediation wastes
- Increase understanding of the occurrence and distribution of paleosoils and Upper Continental Deposits at PGDP



C-746-U Landfill
& Proposed Expansion

Method

- Target field investigation ABOVE faults interpreted on seismic profiles
- Collect 80+ cores to 30' bgs at 10' to 20' intervals in areas of interpreted faulting along seismic transects
- Conduct detailed Lithostratigraphic characterization of cores to 1" detail
- Collect and analyze C-14 and OSL age-dating samples
- Correlate cores & age data to assess Holocene-aged displacement



C-746-U Holocene Study Area showing Seismic
Transects and core locations on Line 2

Challenges

- Utilize methodology for data collection that provides sufficient data coverage without OSHA/Health & Safety concerns associated with trenching to 30' bgs
- Account for uncertainties associated with core collection method
- Identification and integration of Project team composed of nation/international/site subject matter experts
- Coordination of KRCEE, DOE, & contractors activities into efficient & seamless field effort

Results

- No preliminary evidence of Holocene-aged displacement at C-746-U Landfill (see adjacent cross-sections illustrating lithologic interpretations & method uncertainties related to core loss/compression for each lithologic horizon pick)