A. Mark Harper, CPG

Hydrogeologist, Project Manager

PROFESSIONAL SUMMARY:

Mr. Harper is a Hydrogeologist and Project Manager for Analytical Services, Incorporated. His responsibilities include managing all phases of groundwater assessment projects including the oversight of field work and data collection. Mr. Harper is proficient with the latest in automated downwell monitoring equipment and retrieval of electronic data, data reduction, and report preparation. He also has extensive experience in conducting comprehensive subsurface investigations, geophysical surveys, Phase I and Phase II environmental site assessments, and field geologic mapping.

FIELDS OF EXPERTISE:

Implementation of Monitoring Programs using Automated Equipment
Aquifer Testing Design and Implementation
Geophysical Surveys
Well Logging
Phase I and II Environmental Site Assessments
Environmental Sampling
Subsurface Contaminant Investigations
Technical Reporting
ArcView GIS Applications

EDUCATION:

M.S., Environmental Geology, The University of Akron, 2000.
B.A., Geology, The College of Wooster, 1998, Cum Laude.

PROFESSIONAL PROJECT EXPERIENCE:

Responsible for the implementation of a simultaneous aquifer pump test performed on five wells designed to evaluate the potential impact of dewatering associated with a planned quarry pit. The scope of the project involved field logging of 14 bedrock wells, all completed to depth of at least 400 feet below ground surface. Automated monitoring was performed on 14 wells prior, during, and following the actual aquifer test. Observation wells monitored during the test included three residential wells. The monitoring program also included gauging water levels in nearby ponds and recording precipitation. The test was manned 24 hours a day to insure smooth operation. Test data was collected from the field and utilized to prepare a detailed hydrogeological report.

Performed well logging on two high-yield production wells for a large Golf Course development. Following well installation, a 72 hour pump test was conducted on each well, and automated monitoring equipment was utilized in both overburden and bedrock

observation wells. Field Data was collected, reduced and utilized to prepare a technical report that evaluated sustainable pumping rates and the potential for off site impact.

Performed saturated hydraulic conductivity (Ksat) of saprolitic soils overlying crystalline rock in Virginia's central piedmont region. The purpose of the study was to determine typical Ksat values for saprolite overlying unique bedrock geology.

Performed multiple Phase I/II environmental site assessments including coordination of fieldwork, soil/water sampling, and report preparations.

Assisted with a fracture trace analysis on a basin scale in Albemarle County. This project required detailed study (stereoscopic analysis) of both high and low altitude aerial photographs.

Assisted with the field layout and implementation of numerous geophysical surveys utilizing high resolution resistivity techniques. Performed analysis of cross sectional survey results to identify low resistivity anomalies for consideration of drilling targets.

Overseen the installation of numerous groundwater monitoring wells associated with comprehensive site assessments and utilized field gauging data to prepare groundwater flow direction maps.

TECHNICAL PUBLICATIONS:

Masters Thesis: Groundwater Geology, Hydrologic Analyses, and Water Quality of Pennsylvanian Hydrostratigraphic Units in the Allegheny and Pottsville Groups of Southwestern Stark County, Ohio

Undergrad Thesis: "Autocementation": the process, which lithified the carbonate hardgrounds in the Carmel Formation (Middle Jurassic) of southwest Utah

Harper, A.M., and Foos, A., 2000, Pennsylvanian aquifer systems in the Pottsville and Allegheny Groups, Stark County, Ohio: Geological Society of America Abstracts with Programs, v. 32, no. 4, p. A16.

Harper, A.M., and Wilson, M.A., "Autocementation": the process which lithified the carbonate Hardgrounds in the Carmel Formation (Middle Jurassic) of southwest Utah: Eleventh Keck Research Symposium in Geology Proceedings, Amherst, Massachusetts, April 1998, p. 213-216