

GARY VANCIL, JR.
Geologist



Education

SOUTHERN ILLINOIS UNIVERSITY CARBONDALE, Carbondale, Illinois

MS Geology

BS Geology

- REACH, Fiscal Year Undergraduate Research Grant Award at Southern Illinois University

Specialty Certifications/Experience

UNITED STATES ARMY (1989 – 1998)

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

- First Class Miner Papers
- Surface Supervisor Papers

KENTUCKY DEPARTMENT OF NATURAL RESOURCES

- Certified Macroinvertebrate Sampler

MINE AND SAFETY HEALTH ADMINISTRATION

- Impoundment Certification
- 40-hour Surface and Underground Miner Training

Professional Experience

Mr. Vancil is an accomplished, proactive geologist with decades of experience in longwall, CM and surface coal mining operations. His extensive geological experience includes mine planning, mine management, hazard identification, mapping, drilling, permitting, refuse disposal, quality control and electrical/mechanical troubleshooting. Gary's extensive qualifications include a Master of Science in Geology with the following core competencies and professional strengths:

Due Diligence	AutoCAD/Carlson	Project Management
Reserve Analysis	Microsoft Word	Budgets
Drilling/logging	Environmental Compliance	Permitting
Underground Mapping	Mine Planning	Impoundments

Relevant Project Experience

Environmental Compliance

Emergency Response Sugar Camp Energy – Illinois. Gary led efforts to fight an underground mine fire that occurred in 2021. He managed all drilling preparations and designed specialty tools, enabling use of the drill rigs in firefighting. Eighteen boreholes, each at over 800' in depth, were drilled in just three weeks to extinguish the underground fire. He was also the lead contact for state and federal agencies.

Permitting and Design – Williamson Energy – Illinois Assisted with designing and completing a mixing zone permit to allow Williamson Energy to successfully discharge decant waters to the Big Muddy River. Total cost of project was \$4.7 million.

Environmental Remediation and Compliance – The American Coal Company – Illinois. Gary served as lead geologist on a remediation effort to clean 3.7 miles of stream impacted by a significant slurry spill. He was main point-of-contact for EPA, DNR and the AGO. In this lead role, Gary managed two teams working 24/7 to successfully clean the stream and remove downstream wildlife to avoid them being impacted. Total remediation efforts was two and a half months – a month and a half sooner than the AGO's deadline.

Mining

Geologic Hazard Mitigation – The American Coal Company– Illinois. Mr. Vancil developed geologic plans to successfully longwall mine through three different fault systems with displacements of more than 24 feet. His team was able to save more than \$2.4 million by mining through the faults VS moving around them. He designed the model and roof control plans enabling successful and safe mining of these areas. Gary worked closely with MSHA, ISGS and SIUC.

Geologic Mine Design – KenAmerica, Kentucky. Gary developed mine plans while considering horizontal stresses associated with the Illinois Basin. He was responsible for making major changes to mine layout and design while considering these stresses and the local geology. The mine was successful in mining the #9 seam for several years before reserves were exhausted.

Mine Equipment Design – Lila Canyon, Utah. Mr. Vancil worked with mine engineers to research and purchase new longwall shields and shear to allow the mining of the Sunnyside coal seam in Northeast Utah. The mine known for its coal bursts will be over 2,700' deep and to safely mine the coal more robust shields were needed. The new equipment is currently in use.

Publications

“A compositional data analysis approach to understanding trace element distribution during beneficiation of an Illinois Basin coal.” - Nicholas Geboy, Allan Kolker, Liliana Lefticariu, Gary Vancil Jr.; 2015.