MCG Geotechnical Engineering Inc.

http://www.mcggeotechnical.com/

GEOTECHNICAL AND ENVIRONMENTAL ENGINEERING

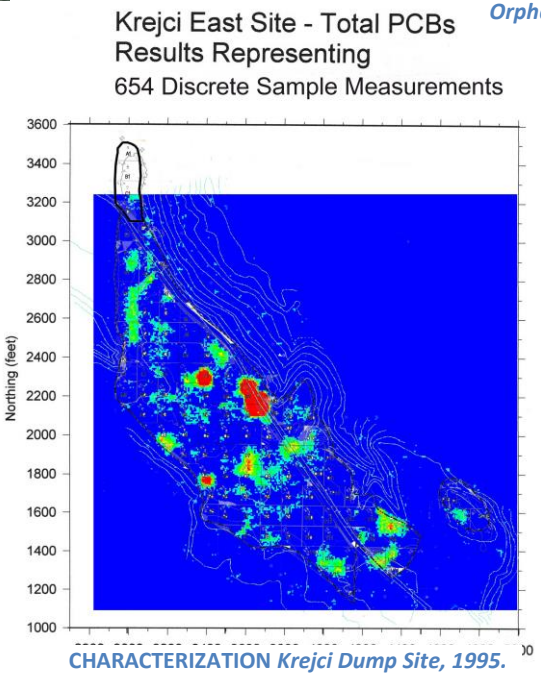
GSA CONTRACT INFORMATION GS-10F-0142X
PROFESSIONAL SERVICES SCHEDULE 00CORP

1. **Awarded Special Item Number(s)** 899-1/RC, Environmental Consulting Services; 899-3/RC, Environmental Training Services; 899-8/RC, Remediation and Reclamation Services.
2. **NAICS: 541620, 562910, 541380, 541620, 562910.**
3. **Hourly Rates**: See Labor Rates and Description of Labor Categories (pages 5 through 7).
4. **Maximum Order**: $1,000,000.00
5. **Minimum Order**: $100
6. **Geographic Coverage**: Domestic and International.
7. **Discount from List Prices**: Basic discounts have been deducted.
8. **Quantity Discounts**: Will be considered.
9. **Prompt Payment Terms**: **Government Purchase Cards accepted.**
10. **Ordering & Payment Address**: MCG_Engineering Inc., 4817 S. Zang Way, Morrison CO, 80465
11. **The Offeror voluntarily agrees to participate in Recovery Purchasing.**
12. **Accounting:** QuickBooks Premier Professional Services
13. **Woman Owned Small Business**
14. **Contract Period:** March, 11 2011 through March 10, 2021
15. **Cage:**4XG33
16. **DUNS:** 611312575

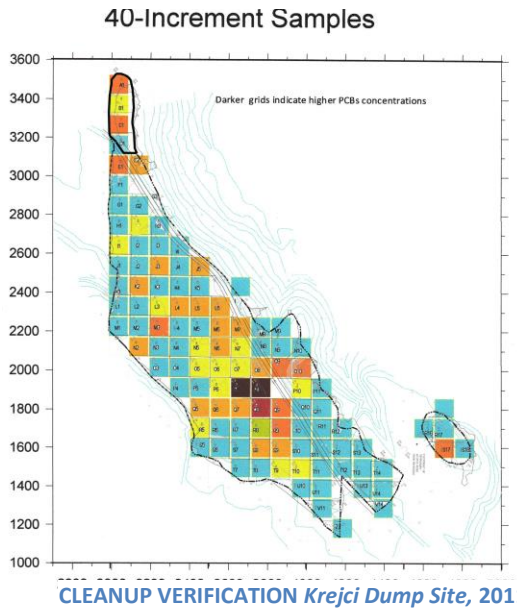
ENVIRONMENTAL CONSULTING, REMEDIATION AND TRAINING
Post Remediation, Krejci Dump Site, Cuyahoga National Park.

PRESERVATION & CONSERVATION
Unearthed Mayan Structures
The Getty Conservation Institute, Joya De Ceren, El Salvador.

INVESTIGATION
Orphan Mine Site, OU2, Grand Canyon National Park.



CHARACTERIZATION *Krejci Dump Site, 1995.*



CLEANUP VERIFICATION *Krejci Dump Site,* 2011

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GEOTECHNICAL AND ENVIRONMENTAL ENGINEERING

COMPANY OVERVIEW

Contact Information

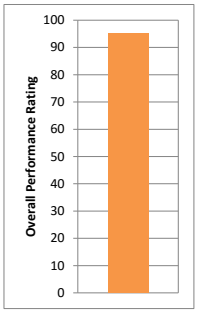
Headquarters Phone: 303-973-2660
Office: 303-589-8486
Fax: 303-979-6383

4817 S. Zang Way
Morrison, CO 80465

Contact: Mark Gemperline
Website: www.mcggeotechnical.com
E-Mail: mcgemperline@mcggeotechnical.com

MCG is a geotechnical and environmental engineering firm located in Morrison Colorado that was founded in 2005 and works throughout the U.S. and abroad.

Reputation



MCG's corporate culture is oriented around providing the highest quality technical services and being responsive to clients' needs. As a result, MCG has a long record of satisfied clients which results in our high rate of return business. The many letters of commendation and awards we have received attest to our emphasis on quality and responsiveness. MCG was rated above 95 (out of a possible 100) in all performance categories in the GSA required Past Performance Evaluation by Open Ratings (Dun and Bradstreet). The evaluation categories were reliability, cost, order accuracy, delivery/timeliness, quality, business relations, personnel customer support and responsiveness.

Experience

The MCG's professional employees average 30 years experience. This and our broad range of technical knowledge are put to work for every client to economically achieve efficient and effective results. In addition, close ties with environmental professionals who market their services independently (recent retirees and others) are hired as needed by MCG when their inclusion on the team adds value to the clients' project.

Services

MCG provides a full range of engineering and environmental consulting services for contaminated sites with a focus on archaeological structures preservation, investigation and remediation planning, work plan preparation, investigations, cleanup verification, quality assurance, and remedial design. We have extensive expertise and experience and pride ourselves in solving the most complex environmental, structural and geotechnical problems. Some of our specialties include environmental forensics, surface water and sediment studies, evaluation of ancient structures, groundwater and subsurface investigation and remediation, administrative record development and management, groundwater contaminant transport and remediation, financial estimates, project management, and litigation support. MCG also provides Site Characterization and both project specific and subject specific training. MCG has a laboratory that provides special analytical testing services to define a aspects of soil physical properties. This laboratory also manages and oversees sample processing of large samples (composite, incremental, and multi increment samples) to ensure creation of representative subsamples. MCG's president and principal engineer has more than 26 years experience designing and implementing cost saving multi increment sampling programs.

GSA Special Item Numbers (SINs) offered under our GSA Contract

899-1/RC: Environmental Consulting Services
899-3/RC: Environmental Training Services
899-8/RC: Remediation and Reclamation Services

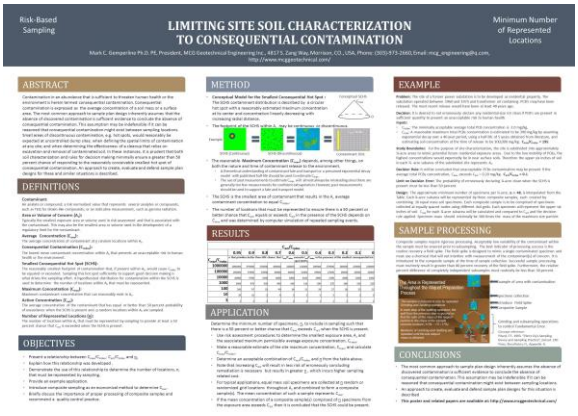
Price List: Our GSA Schedule contract ***Labor Rates*** are provided below.

SERVICES OFFERED

899-1/RC: Environmental Consulting Services

CERCLA Remedial Investigation/Feasibility Studies (RI/FS)
Administrative Record Development and Maintenance
Engineering Evaluation/Cost Analysis (EE/CA)
Cultural and Archeological Stability, Conservation and Preservation
Preliminary Assessments
Physical Hazard Assessment
Environmental analysis of contaminated sites
Firing range characterization and remediation.
Economic, technical and risk analysis
Feasibility assessment and risk analysis
Community Involvement Plans
Environmental site assessments (Phase I, II, and III)
Environmental project management
NEPA documentation-CE, EA and EIS
Endangered species and wetlands analysis
Permitting
Environmental compliance audits and services
Third Party Quality Assurance and Project Monitoring
Life Cycle Assessment
Community Right-To-Know Act reporting
Waste characterization and source reduction studies
Waste tracking and handling systems
Waste management plans and surveys
Environmental Impact Analysis
Groundwater monitoring
Terrestrial, aquatic, and atmospheric data analyses

899-3/RC: Environmental Training Services



Training programs are developed as needed to meet client needs. Topics may include:

- Developing Plans that Support Defensible Decision Making
- Environmental Laws
- Risk Based Composite, Incremental, and Multi Increment Sampling
- Soil Classification
- Methods for Site Characterization
- The NEPA Process

899-8/RC: Remediation and Reclamation Services

Site investigation
Site remediation
Cleanup Verification
Quality Assurance and Quality Control
Third Party Monitoring and Reporting of Remediation Activities
Preparation, characterization, field investigation, and closure of hazardous waste sites
Long-term monitoring, operation and maintenance of remediation systems
Excavation, removal, and disposal of hazardous wastes
Containment, reduction, and monitoring of hazardous waste
Removal, transportation, storage, treatment and/or disposal of hazardous waste
Wetland restoration
UST/AST removal
Air monitoring
Soil, soil vapor, groundwater and sediment remediation design and implementation
Soil vapor extraction
Stabilization/solidification, bioventing, carbon absorption, reactive walls, hydraulic containment

Labor Category	Price
Subject Matter Expert	$250.00
Technical Project Manager	$170.89
Technical Consultant	$178.57
Engineering Technician	$77.00
Engineer III	$81.00
Engineer IV	$98.00
Engineer V	$132.40

DESCRIPTION OF LABOR CATEGORIES

Subject Matter Expert

Engineer / Attorney / Chemist / Principle Environmental Professional who acts as an advisor in complex and critical client projects. Has specific, intimate, often unique and specialized knowledge of a particular technology, program, system, organization, research and development. Has unique and detailed experience and has attained highly critical skills, knowledge and understanding in specialized areas.

Education and experience: PhD and 10 years experience.

Scope: Provides expert scholarly advice and consultation to projects and professional co- workers. Applies expert and highly specialized knowledge to gather facts, research, and analyze data, and develop conclusions, recommendations and strategies. Generally has attained high levels within government and/or industry. Directly supervises junior staff.

Technical Project Manager:

Engineering/ Chemist/ Environmental Professional who acts as an advisor and or manages complex and critical client projects. Has specific and specialized knowledge of a particular technology, program, system, organization, research and development. Has a minimum of 6 years of program management experience. Has attained knowledge and understanding in specialized areas.

Education and experience: Master degree or higher and 12 years experience.

Scope: Provides consultation to projects and professional co-workers. Applies specialized knowledge to gather facts, research, and analyze data, and develop conclusions, recommendations and strategies. Directly supervises junior staff.

Technical Consultant

Engineering/ Chemist/ Environmental Professional who acts as a consultant on client projects. Has specific, unique and specialized knowledge of a particular technology, program, system, organization, research and development. Has unique critical skills, knowledge and understanding in specialized areas.

Education and experience: Master degree or higher and 12 years experience.

Scope: Provides professional consultation to projects and co-workers. Applies unique and specialized knowledge to gather facts, research, and analyze data, and develop conclusions, recommendations and strategies. Directly supervises junior staff.

Engineering Technician
Environmental Technician/Scientist I

Support managers, environmental professionals, engineers, staff in varied clerical, computer system technology, field work, laboratory, training as needed. Proficient in word processing, spreadsheet use and development, and computer systems.

Education and experience: Associate Degree or higher with one year work experience.

Scope: Under general supervison; interacts with all levels of staff as needed.

Engineer III
Staff Environmental Professional III

Using specialized engineering and/or environmental science knowledge performs engineering/ environmental studies and analysis, technology planning. Works under limited direction on complex assignments, configuration management. Directs junior staff. Leads teams

Education: Bachelor of Science degree in Engineering/Environmental Science and one year work experience.

Scope: Under limited supervision performs various engineering duties. Interacts with all levels of engineering staff as needed.

Engineer IV
Staff Environmental Professional IV.

Uses specialized engineering, environmental science and project management skills, and leads engineering teams on complex projects. Performs engineering studies and analysis, technology planning. Works under limited direction on complex assignments, configuration management. Directs junior staff. Leads project teams. They function as senior leaders of sustainable and identifiable business practices and as widely recognized staff mentors and leaders. They develop, secure funding for, and manage multiple consulting assignments and clients within two or more specialty areas. They are responsible for practice financial management and advanced business planning.

Education and experience: Masters in Engineering and 12 years experience. An M.S. or higher degree in another field may be substituted.

Scope: Under limited supervision performs project/program management on complex projects/ programs. Interacts with all levels of engineering and environmental science staff and clients as needed.

Engineer V/ Chemist/Environmental Professional.

The responsibilities for this position include management of complex projects, collaboration with colleagues from research or other academic or technical institutions to promote the application and advancement of innovative technologies and solutions to environmental or engineering problems; understanding of state and federal regulations that apply to professional practice; and additional responsibilities for business development and corporate management. This position includes responsibility for report preparation, engineering and/or scientific investigation and design, and may include expert witness services in legal or regulatory proceedings, responsibility for corporate compliance with training and quality control protocols, and the development of Standard Operating Procedures. Supervises Junior Staff

Education and Experience: B.S. and/or M.S in a scientific field with 14 or more years' experience.

Scope: Under limited supervision performs project/program management on complex projects/ programs. Interacts with all levels of engineering and environmental science staff and clients as needed.

Statement regarding substitution of experience for education

It is MCG's standard commercial practice to substitute experience for education with five years experience equating to a BA/BS degree; 10 years experience equating to a MS degree; and an MS or MA degree with 15 years experience equating to a PhD degree. Lawyers licensed to practice law are considered to have education equivalent to a PhD degree.

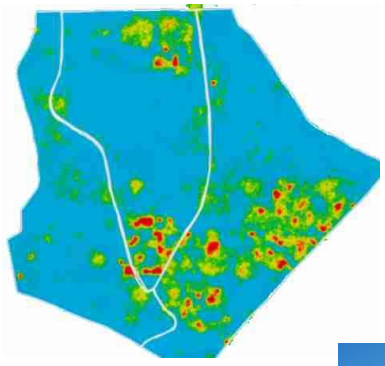
Examples of MCG's Work for Governmental Agencies Are Provided on the Following Pages.

EXAMPLES OF WORK

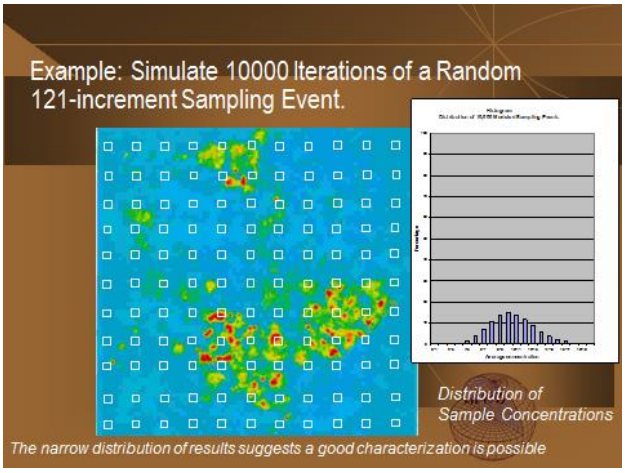
Project: Krejci Dump Site (CERCLA)
Client: National Park Service
Location: Cuyahoga Valley National Park, Ohio
Years: 2008-2013
Activities: MCG provided guidance and recommendations to the National Park Service (NPS) Environmental Compliance and Response Branch for the Krejci Dump Site remedial action. The remedial effort began in 1987, all remediation goals were achieved by 2012 and site restoration was completed in 2013 (magazine article at: http://www.conservancyforcvnp.org/file/annual-reports/Magazine_Fall15-Winter16.pdf).

MCG provided independent review and oversight of cleanup and restoration activities from 2008 through 2012. MCG also performed erosion control study and provided quality assurance oversight. Data usability documents, DUR 1, DUR 2, and DUR 3, present all cleanup verification data and an analysis of usability for cleanup verification purposes and are available for *download* .

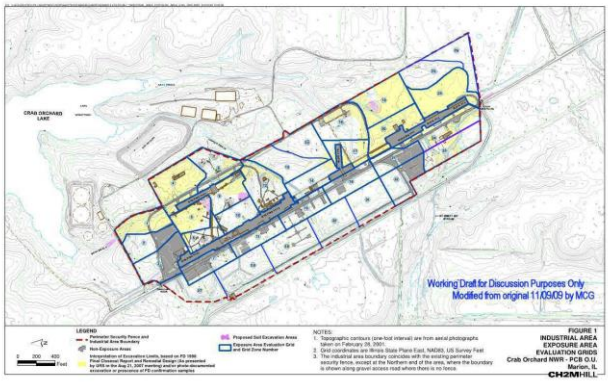
Prior to founding MCG, Dr. Gemperline, MCG President, was employed by the U.S. Bureau of Reclamation (BOR) and during that employment supported the National Park Service in its Krejci Dump Site cleanup effort. Dr. Gemperline provided technical leadership to BOR teams involved in the Krejci Dump Site remedial investigation and feasibility study, as well as other projects. He developed the both remedial investigation technical approach for the Krejci Dump Site Remedial Investigation and Feasibility Study and ultimately the approach used for cleanup verification. Dr. Gemperline oversaw all site characterization activities and provided third party quality assurance and control. Risk-based composite sampling was initially developed for this project. Related papers, presentations and documents are *available* f or downloading.

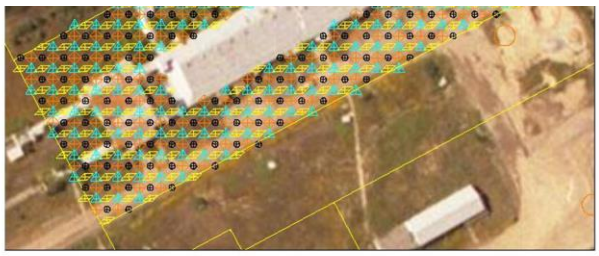


Project: Crab Orchard PCBs OU (CERCLA)
Location: Crab Orchard National Wildlife Refuge, Illinois
Year: 2008-2012
Activities: CONWR is located in southern Illinois, approximately 5 miles west of Marion, Illinois, primarily in Williamson County. The Industrial Area (Site 33) encompasses approximately 114 acres and is currently used for munitions manufacturing. MCG Supported the U.S. Fish and Wildlife Service by preparing a risk-based sampling plan to support decisions related to

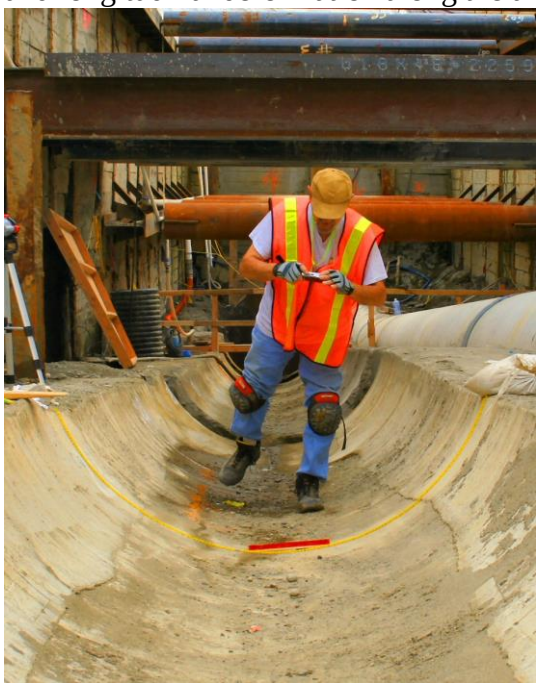


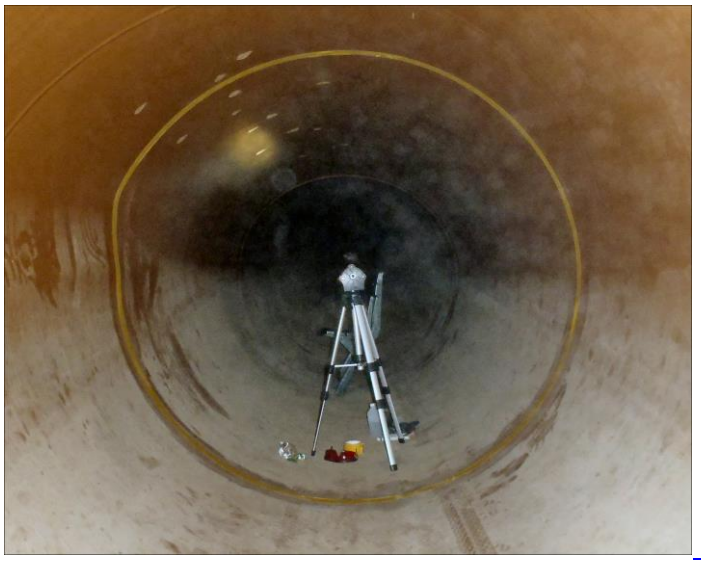
cleanup verification of the Industrial Area. The plan was designed to provide acceptable assurance that all consequential PCBs contamination was properly addressed. MCG designed the plan and provided onsite review of implementation activities. MCG also reviewed all data and provided independent quality assurance oversight.





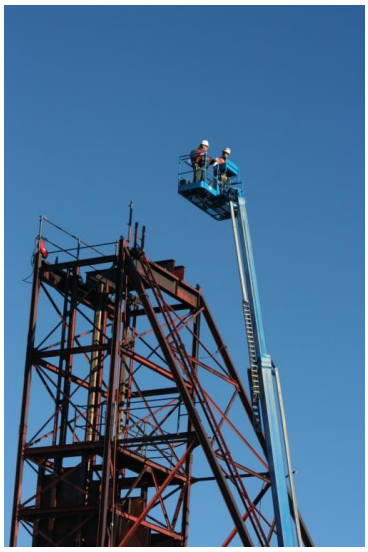
Project: Brightwater WastewaterTreatment Plant
Client: King County WA. Office of the Prosecuting Attorney
Location: King County, WA.
Years: 2011-2012
Activities: Assisted King County, by providing expert engineering evaluation related to excessive deformation of a 66-inch steel pipe at the Brightwater Treatment Plant. MCG developed and used laser imaging methods to profile and analyze the circumferential and longitudinal deformation along the alignment.





Project: Muletown Conduit
Client: U.S. Department of Justice
Locations: Wiskeytown National Recreation Area
Year: 2013-Present
Activities: Providing expert analysis and testimony regarding the performance of the Muletown Conduit. Project is Under Litigation Hold.

Project Name: Orphan Mine Site, (CERCLA)
Client organizational name: National Park Service, Contaminated Sites Program, 1050 Walnut Street, Suite 220, Boulder, CO 80302
POP: Hitachi Consulting
Geographic Reach: Underground uranium mine located. The site is approximately 30 acres and is located on the south rim of the Grand Canyon in the Grand Canyon National Park.
Project Objective: Cleanup and restore the former mining site.
MCG Task: Provide technical consultation.
Accomplishments: Primary author of the EE/CA Work Plan and associated radon sampling plan. Performed pilot Study. Developed Data Quality Objectives. Assisted with the Preparation of the Field Sampling Plan, QAPP, and both the Human Health and Ecological Risk Assessment Plans. Participated on the groundwater investigation team. Assisted NPS by monitoring manmade feature removal activities and providing guidance related to site soil, water and air characterization and measurement interpretations.

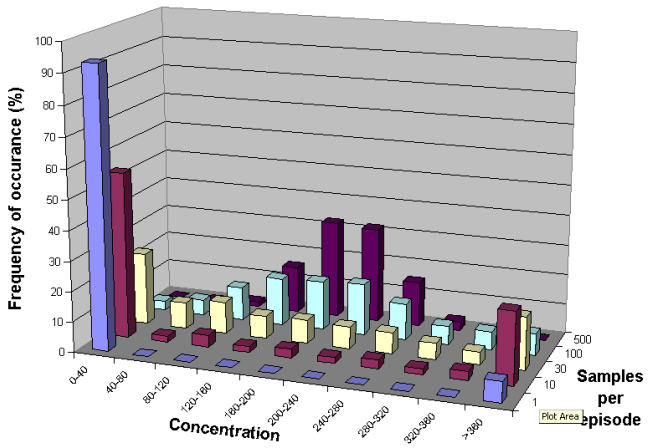


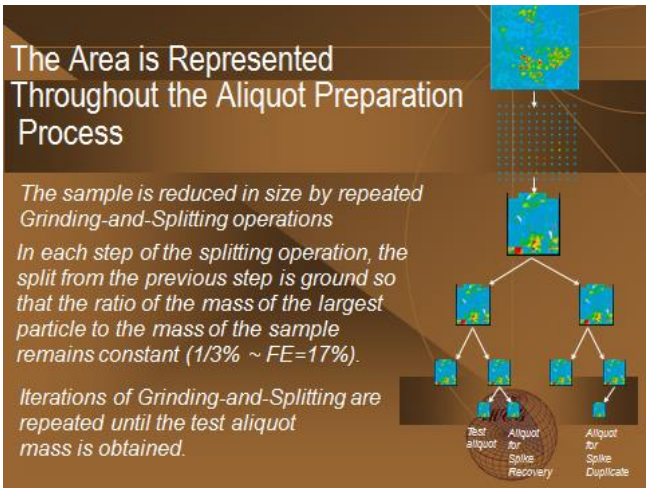
Project: Civil Action
Client: Kay, Casto and Associates
Location: West Virginia
Years: 2005-2007
Activities: Assisted attorneys by providing expertise needed to determine the cause of an 84 inch drainage pipeline failure. This included characterization of movement and pipe soil-structure interaction analyses.

Project: TVA Kingston Fossil Fuel Plant Release Site (CERCLA)
Client: BOR/USEPA
Locations: Kingston, Tennessee
Activities: The TVA Kingston Fossil Plant coal fly ash slurry spill occurred just before 1 a.m. on Monday December 22, 2008, when an ash dike ruptured at an 84-acre (0.34 km^2) solid waste containment area at the Tennessee Valley Authority's Kingston Fossil Plant in Roane County, Tennessee. 1.1 billion US gallons (4,200,000 m^3) of coal fly ash slurry was released (Wikipedia). MCG Reviewed plans and evaluated the stability of both the remaining earthwork and replacement dikes. MCG also performed soil analyses and other laboratory test to evaluate the potential use of

electro-osmosis to consolidate the remaining fly ash.

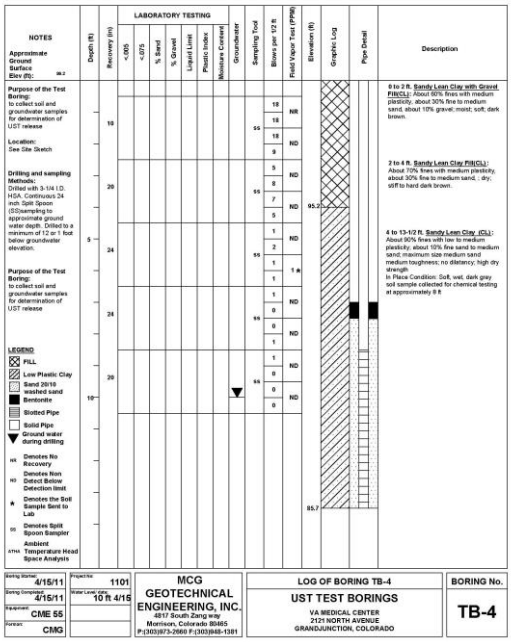
Project: Old Yuma Mine (CERCLA)
Client: NPS
Locations: Saguaro National Park, AZ
Activities: Reviewed EE/CA QAPP and Sample Analysis Plan and made recommendations to improve efficiency and effectiveness of the mine site characterization.



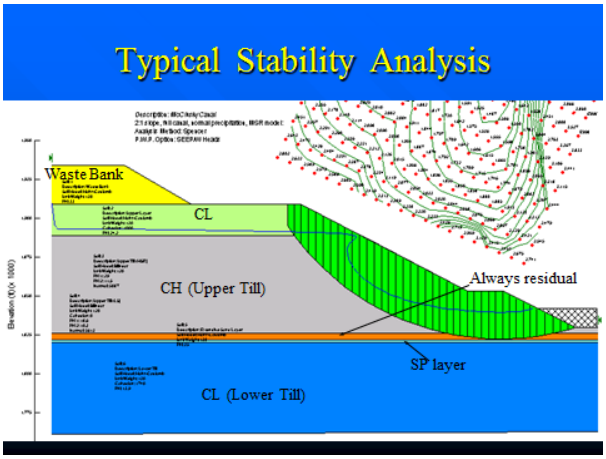


Project: Grand Canyon High School
Client: National Park Service
Places: Grand Canyon National Park, Arizona
Year: 2007-2009
Activities: MCG led the design, implementation and reporting effort for a program to evaluate persistent rumors that the athletic field was constructed using radioactive fill.

Project: **Underground Storage Tank (UST) Investigation**
Client: Veterans Administration
Locations: Grand Junction, Colorado
Activities: Developed and implemented plans investigating the potential for groundwater contamination from an underground fuel storage tank.

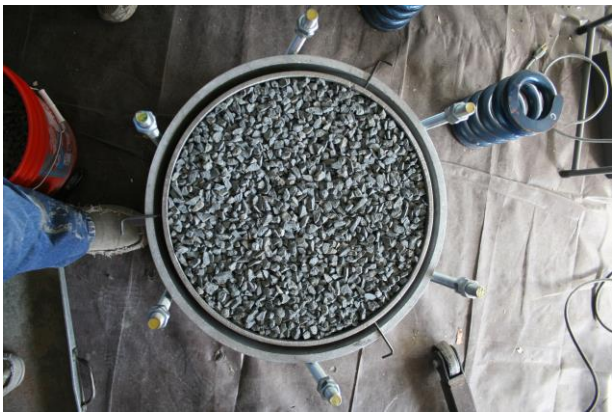


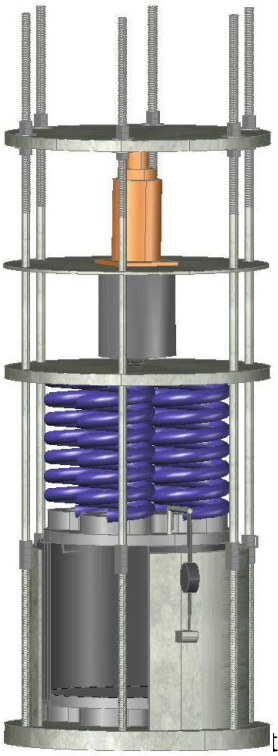
Project: McClusky Canal
Client: Bureau of Reclamation
Location: North Dakota
Activities: Evaluated slope failures along a two mile reach of the 75-mile long McClusky Canal, Evaluated risk to canal workers and recreational users, and recommended alternative remedial measures.



Project-Constrained Modulus of Gravel and Crushed Rock

Activity: Large Scale Testing of Crushed Rock – Research
Client: Plastics Pipe Institute
Location: MCG Geotechnical Laboratory, Colorado
Activities: Developed a one-dimensional Compression Test to determine the constrained modulus of gravel and crushed rock and performed a parametric study to evaluate the effect of crushed rock properties on constrained modulus. The full report may be downloaded on from the MCG Documents page or by clicking MCG Final Ms Study Report031410.



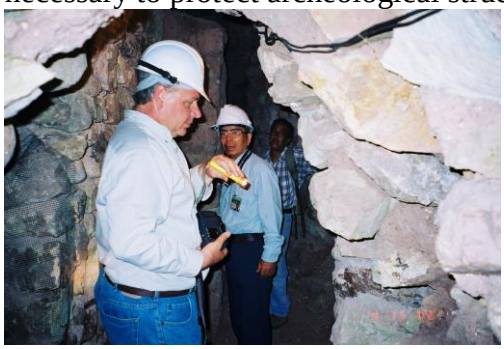


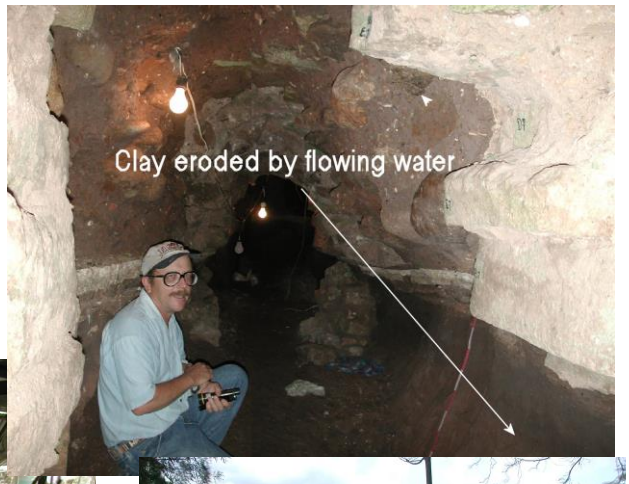
Project-Use of Recycled Materials in Co[illegible]h Material (a.k.a. flowable fill)

Activity: Laboratory testing- Research
Client: Plastics Pipe Institute
Location: University of Colorado, Denver & MCG Geotechnical Laboratory, Morrison Colorado
Activities: Evaluated the physical characteristics of flowable fill mix designs that utilizes the waste products of the energy production and recycled material industries. These included spray drier ash, bottom ash, fly ash, crushed glass, crumb rubber, sand-size crushed concrete and other material. (Beneficial use of recycled materials in flowable fill (CLSM))

Project-Maya Initiative

Activity: Structural Evaluation of Archeological Excavations, Tunnels, and Unearthed Mayan Structures
Client: Getty Conservati0n Institute
Location: Joya De Ceren, El Salvador and Copan, Honduras
Activities: Dr. Gemperline evaluated the stability of unearthed structures, tunnels, excavations and shelters at Mayan Archeological sites in Honduras and El Salvador. Recommendations for preservation and conservation were made. Cracks had recently developed in the Hieroglyphic Staircase at Copan and that were suspected to be caused by ground movement associated with an underlying archeological tunnel. Also evaluated the effect of groundwater, vegetation and algal growth on the recently unearthed Mayan structures near Copan. (*Click here to view Getty* project summary)(*Click here to view Getty report*) Additionally, the stability of excavations that unearthed adobe ruins near Joya De Ceren, El Salvador was analyzed and recommendations to achieve sustainable were preservation made. Seismic analysis of unearthed structures, cut slopes, and modern structures that covered the sites were performed. The risk of groundwater intrusion was evaluated, feasibility level designs that ensure seismic stability of structures of archeological structures were developed. Furthermore, an early warning system to alert of potential groundwater flooding was designed. Emergency actions necessary to protect archeological structures in the event of groundwater flooding were developed.





"The Service Contract Act (SCA) is applicable to this contract as it applies to the entire 00CORP: Professional Services Schedule and all services provided. While no specific labor categories have been identified as being subject to SCA due to exemptions for professional employees (FAR 22.1101, 22.1102 and 29 CFR 541.300), this contract still maintains the provisions and protections for SCA eligible labor categories. If and / or when the Contractor adds SCA labor categories / employees to the contract through the modification process, the Contractor must inform the Contracting Officer and establish a SCA matrix identifying the GSA labor category titles, the occupational code, SCA labor category titles and the applicable WD number. Failure to do so may result in cancellation of the contract."