

## **Job Description – Geotechnical Investigator**

Please submit resumes to Trish Bednarek at [tbednarek@imsif.com](mailto:tbednarek@imsif.com)

### **Summary:**

The Illinois Mine Subsidence Insurance Fund is seeking a Geotechnical Investigator to join our Southern Illinois team. The investigator will design and conduct comprehensive site inspections, analyze level line survey results, and perform other required analysis to determine if damage to a structure is caused by mine subsidence and if so, the extent of the damage caused by the mine subsidence. The team member will analyze survey data to determine when damaging ground movement has ceased and when property repairs can be safely made.

The candidate must be either a Licensed Geologist or a Professional Engineer, with a degree in an affiliated field including geology, geotechnical engineering, mine engineering, structural engineering, civil engineering, soil engineering, or foundation design.

The Illinois Mine Subsidence Insurance Fund is a non-governmental tax paying entity created by the General Assembly. The purpose of the Fund is to assure financial resources are available to owners of property damaged by mine subsidence so those damages can be repaired. The Fund does this by providing reinsurance to insurance companies, conducting geotechnical investigations to determine if mine subsidence caused the damage, supporting research to mitigate structural damage, and educating the public about the use of insurance to lessen the risk of financial loss resulting from mine subsidence.

### **Essential Duties and Responsibilities include the following:**

- Review preliminary report of independent claim adjuster, assemble, and review available mining information, including mine, bore-hole, topographic, and quadrangle maps.
- Conduct claim site inspection to examine, photograph, and otherwise document damage to insured structure, interview policyholder regarding property history, and gather information to plan survey line.
- Determine type of geologic instrumentation to be used at the site such as deep-seated settlement points, inclinometer and extensometers, Shelby Tube sampling, drill hole testing, split spoon sampling and other subsurface investigation techniques.
- Direct placement of settlement points; establish origin of survey line; and determine how the survey line should encompass the site being investigated.
- Collect or supervise collection of soil samples, order appropriate tests to analyze soil composition, utilize those test results in the investigation.
- Organize and analyze accumulated mapping, survey, soil composition, damage documentation, and any other relevant data to formulate determination of mine subsidence as cause of property damage claim. Prepare written report with findings and conclusions.

- Review data from annual re-surveys of mine subsidence damaged structures and nearby instrumentation to determine if damaging ground movement is continuing. Prepare written report on findings and recommendations.
- May be required to present expert testimony regarding any investigation in arbitration or lawsuit defense proceedings.

### **Education and/or Experience Certificates, Licenses, Registrations**

Candidate must be either a licensed geologist or Professional Engineer, with a degree in fields related to geology, mine engineering, or structural engineering. Relevant work experience or demonstrated knowledge in the areas of mining, mine engineering, mine subsidence, or structural engineering with an emphasis on foundation design.

### **Knowledge and Skills**

- Ability to read, analyze, and interpret general, professional journals, technical procedures, or governmental regulations.
- Ability to interpret USGS topographical maps, mine maps, drill logs, and other data sources.
- Working knowledge of level line surveying practices, and ability to read and interpret survey results.
- Ability to define problem, collect data, establish facts, and draw valid conclusions.
- Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and interpret geologic and soils data as it impacts various types of construction.
- Ability to write reports, business correspondence, and produce technical reports to prescribed standards.
- Ability to effectively present technical information and respond to questions from policyholders and the public.
- Competent knowledge of MS Office applications including Word, Excel, Access and PowerPoint.

### **Other Qualifications**

Must be willing to travel via motor vehicle across Illinois; have valid driver's license and acceptable MVR.

While performing the duties of this job, the employee is frequently required to work in confined subsurface areas such as basements and crawl spaces and will also be exposed to outside weather conditions. The noise level in the work environment can be moderate.