

## **EDUCATION**

B.S. Geology, 1972, Georgia State University

One year of graduate studies in petrography – University of Georgia

## **PROFESSIONAL REGISTRATIONS**

Professional Geologist, GA (570), AL (916)

## **PROFESSIONAL MEMBERSHIPS**

Geological Society of America (GSA)

American Association of Environmental & Engineering Geologists (AEG)

Georgia Geological Society (GGS)

Atlanta Geological Society (AGS)

## **PRESENTATIONS & PUBLICATIONS**

ACI Local Chapter: Aggregate Issues – What if bad aggregate is used (November 2019)

AGS: Petrographic Analysis of Concrete and Concrete Materials (February 2017)

AGS: Manufacturing of Portland Cement (May 1998)

AGS: Concrete and Aggregate Petrography (October 1997)

Georgia Construction Aggregates Association (GCAA): The Effects of Aggregates on Concrete (March 2017)

Georgia State University: Geological Aspects of the Concrete Industry (November 2000)

Comparative X-ray Diffraction Analyses of Allanite: Georgia Academy of Science, 1972

## **CERTIFICATIONS**

Geotechnical Instrumentation

## **CAREER SUMMARY**

Mr. Vines joined SGS TEC Services (formally TEC Services, Inc.) in January of 2018 as the Principal Geologist and a Principal Petrographer performing materials evaluations, and petrographic examinations of aggregates and concrete. He has performed material evaluations utilizing investigative techniques such as petrographic evaluation, x-ray florescence, x-ray diffraction and physical testing.

Prior to joining SGS TEC Services, Mr. Vines worked for Argos Ready Mix, formerly known as Lafarge Aggregates and Concrete/Blue Circle, for 30 years (1988-2017) as the Principal Petrographer. With Argos, Mr. Vines performed petrographic analyses on aggregates, forensic evaluations on concrete from structures, and performed material testing evaluations as described above for SGS TEC Services.

Mr. Vines also worked for Parsons, Brinkerhoff/Tudor Engineering in Atlanta as the Manager of the Technical Services Department (1980-1988) that provided engineering geological services, construction testing, petrographic services, and concrete/precast plant inspections on the construction of the MARTA heavy rail transit system. Previously (1973-1980), Mr. Vines worked for various geotechnical and exploration companies as well as a general contractor directing the concrete QC program.

## **SPECIALTY EXPERIENCE**

Mr. Vines is a Principal Petrographer for SGS TEC Services. He has performed petrographic evaluations of hardened concrete for the purpose of determining causes of distress or surface defects, mix design compliance, determination of concrete constituents including proportions, air void parameters and water-cement ratios. He has also utilized concrete petrography to identify and evaluate alkali aggregate reactions, surface delaminations, mix stability, improper finishing, poor curing, delayed ettringite formation, etc. He further performs petrographic examinations of concrete aggregates.