

Mark Shafiyoon

Staff Geologist



Education

- B.S., Geology, University of Northern Colorado, 2000

Registration and Certification

- 40-Hour OSHA Trained, 29 CFR 1910.120(e)(2)/8 CCR 5192
- ACI Level I Inspector
- GSI-Certified CQA Inspector for Geosynthetics and CCLs

Experience

13 years

With AES

13 years

Mark Shafiyoon has 13 years experience as field geologist and QA/QC monitor on public works and landfill expansion and closure projects. He performed subsurface investigations, and installed and monitored inclinometers and piezometers at FRB Landfill for the East Flank Landslide Remediation project. He performed subsurface investigations and logging of borings for the SR22 widening project in Orange County. He served as CQA Monitor for earthworks, geosynthetics and concrete for over 10 landfill projects, including Phase VIIA and VIIB composite liner at FRB Landfill, Unit 2, Phase 3 composite liner for San Timoteo Landfill, 26-acre Phase 2, Stage 3 expansion at Lamb Canyon Landfill, Canyon 4, Phase 2 expansion at Badlands landfill and final closure at the City of Bakersfield landfill. He also worked as a QA/QC Monitor for FRB Landfill Landslide Backcut project and for Santiago Canyon Landfill closure involving monocover construction, concrete inspection, and LFG system modifications. Mark is a GSI-certified CQA Inspector for geosynthetics and compacted clay liners (CCLs) and is also a certified ACI Level I Inspector.

His relevant experience includes:

- **San Timoteo Sanitary Landfill, San Bernardino County, California**
CQA Monitor during CM/CQA services for Unit 2, Phase 3 expansion involving 6,000 cu. yds. of clay liner, 400,000 cu. yds. of engineered fill and over 1.5 million sq. ft. of geosynthetics installation including HDPE geomembrane, GCL, geotextile and protective membrane.
- **Apple Valley Sanitary Landfill, San Bernardino County, California**
CQA Monitor for the CM and CQA services for the final closure construction project for the 40-acre landfill. The project work tasks included monitoring screening and processing of minus 3-inch final cover material, evaluation and testing of demonstration fill, CQA for about 150,000 cu. yds. of processed material including foundation layer and 2-foot thick final cover, and verification of thickness of final as-built cover. Also provided CQA services for drainage structures, roads, LFG monitoring probe extension, and site security, including tortoise fence installation.
- **Milliken Landfill, San Bernardino County, California**
CQA Monitor for the Phase 3 final closure construction responsible for observation and testing during construction of site road and drainage improvements. The closure included construction of 3-foot thick monocover for this 75-acre landfill including 50 acres of side slopes and 25 acres of deck areas.
- **Frank R. Bowerman Landfill, Orange County, California**
Field Geologist responsible for geologic mapping, drilling sampling and logging of boreholes, and installation and monitoring of piezometers and inclinometers for the east Flank Landslide remediation project.

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Field Geologist responsible for geologic mapping of subgrade floor for the Phase VIIA expansion. Mapped and documented geologic conditions exposed on the graded subgrade floor prior to composite liner construction.

QA/QC Monitor for Phase VIIA composite liner construction involving 3 million cu. yds. of rock excavation, 200,000 cu. yds. of engineered fill and 60,000 cu. yds. of compacted soil liner and 2.8 million sq. ft. of geosynthetic liner for a 20-acre cell expansion. Geosynthetics included HDPE, GCL, and geotextiles.

QA/QC Monitor for Phase VIIB composite liner involving 27 acres of landfill expansion, including 50,000 cu. yds. of clay liner and 3.9 million sq. ft. of geosynthetics.

- **Santiago Canyon Landfill, Orange County, California**

Field Geologist and Materials Inspector during final closure construction of the 130 acre landfill. Responsible for logging 9 borings, reaching maximum depths of 300 feet, and documenting the installation of landfill perimeter gas monitoring probes and testing concrete during construction of drainage structures. Also, responsible for logging and observation of new LFG extraction wells as a part of the final closure construction.

- **Badlands Landfill, Riverside County, California**

Field Geologist assisting the Lead Geologist in geologic mapping of subgrade slopes for the Canyon 4, Phase 2 expansion. Mapped and documented geologic conditions exposed on the graded subgrade slopes and floor prior to composite liner construction.

QA/QC Monitor for Canyon 4, Phase 2 composite liner construction involving 2 million cu. yds. of rock excavation, 200,000 cu. yds. of engineered fill, and 10,000 cu. yds. of compacted soil liner and geosynthetic liner for a 22-acre cell expansion. Geosynthetics included over 2.7 million sq. ft. of HDPE, GCL, and geotextiles. Project featured liner installation on steep 1:1 Side slopes treated with shotcrete.

- **Mesquite Regional Landfill Master Planning, Imperial County, California**

Field Geologist and CQA Technician for foundation and construction materials investigation, including geotechnical logging of borings and test pits, performing in situ density by large 4.5-foot diameter ring, and preparing boring logs and cross sections.

- **Edom Hill Landfill, Riverside County, California**

Field Geologist for a geotechnical evaluation and preliminary site characterization for a proposed Materials Recovery Facility (MRF). Assisted in logging 8 borings and approximately 2000 linear feet of fault trenching.

- **SR-22 Widening, Orange County, California**

Field Geologist responsible for logging 8 rotary wash borings, 9 hollow stem auger borings and 16 CPT soundings to aid in bridge design and evaluate liquefaction potential of saturated soft sediments. Design and installation of 16 piezometers for groundwater elevation analysis

- **Bakersfield Sanitary Landfill, Kern County, California**

Lead CQA Monitor during cover construction at the 90-acre Bakersfield Sanitary landfill. Work involved field observation and testing for evapotranspirative cover material, including borrow area excavation, processing and placement/compaction of material, and Pan Lysimeter construction. Responsibilities include in situ density gradation analysis and sampling for laboratory permeability testing.

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- **Lost Hills Landfill, Kern County, California**

CQA Monitor during final closure for construction involving field observation and testing for evapotranspirative cover material, including borrow area excavation, processing and placement/compaction of material, and Pan Lysimeter construction. Responsibilities include in situ density gradation analysis and sampling for laboratory permeability testing.

- **Puente Hills Landfill, Los Angeles County, California**

CQA Monitor for field observations and testing for ongoing construction of alternative evapotranspirative final cover for the sideslopes of the Puente Hills landfill. This is an active landfill and the sideslope final cover is being constructed on an ongoing basis in conjunction with waste placement activities. Performs visual monitoring, in situ density testing and sampling for laboratory tests including hydraulic conductivity tests.

- **55th Way Landfill, City of Long Beach, California**

Lead CQA Monitor during construction of the GCL final cover system at the 55th way Landfill in the city of Long Beach. The final cover system for the 5.5 acre landfill included a GCL layer, a geocomposite drainage layer and two-foot thick soil cover. CQA activities included, testing and approval of the GCL subgrade, sampling of geosynthetic materials for laboratory testing, monitoring of GCL, Geocomposite and perimeter subdrain installation, and preparation of as-built documentation.

- **Lamb Canyon Landfill, Riverside County, California**

QA/QC Monitor for the 26-acre Phase 2, Stage 3 expansion including testing for earthworks and geosynthetics. Performed QA/QC services for approximately 25,000 cu. yds. of clay liner, 400,000 cu. yds. of engineered fill and 5.4 million sq. ft. of geosynthetics including HDPE geomembrane, GCL and geotextile.

Field Geologist during grading for site facilities, scale house and roadway improvements. Conducted geologic mapping of rough field exposures and existing cut slopes. Prepared geologic cross sections for slope stability analysis.

- **Puente Hills Landfill, Los Angeles County, California**

Field Geologist during moisture monitoring studies. Responsible for the logging of six, 10 foot, hand augered borehole locations and gas monitoring.

- **The Pike, Long Beach, California**

Field Monitor during site grading, installation of driven piles, road and drainage improvements and utilities for a commercial development. Tasks included observation of pile driving and CQA during site grading and drainage improvements.