GOLD COAST GEOSERVICES, INC.
Engineering Geologic and Geotechnical Consultants

August 22, 2019
File No. GC18-092902

Ventura County Planning Department
800 S. Victoria Avenue
Ventura, CA 93009

SUBJECT: Engineering Geologic Report for Ojai Quarry, Ojai, County of Ventura.

Ladies and Gentlemen:

In accordance with your request, this report provides an updated geologic analysis and discussion of slope stability for the Ojai Quarry. The scope of work in preparation of this report included the following:

1) Review of geologic data for the Ojai Quarry in previous geologic reports prepared by Norfleet Consultants (see reference list in Appendix I).
2) Site reconnaissance on June 8, 2019 to observe and evaluate the current site conditions.
3) Review of aerial topographic survey maps of the Ojai Quarry and vicinity provided by *Jensen Design & Survey*.
4) Discussions with the quarry operator, Mr. Larry Mosler.
5) Preparation of this report.

Site Geology Overview

The Ojai Quarry is an active mine located on the easterly side of State Highway 33 ("Maricopa Highway") about 4 miles north of the city of Ojai within unincorporated Ventura County. Eocene age (34-56 million years old) marine sandstone and siltstone assigned to the Matilija Formation is mined at the quarry for construction materials and rock products.

The Matilija Formation within and adjoining the quarry varies from thickly bedded or massive, to well-bedded and medium to thickly bedded, dipping at high angle (80-85 degrees) to the southeast. Complex high angle jointing planes vary from closely spaced to widely spaced.

Slope Stability Analysis

The quarry is located within steep terrain on the lower part of a southwest sloping ridge on the east wall of Matilija Canyon. The mining operations are confined to an area approximately 650 feet in length, with about 500 feet in relief. A mining road provides vehicular access from Maricopa Highway to the actively mined slope areas. Mining excavations within the quarry vary from 1h:1v to 0.5h:1v slope ratio, varying in height with a maximum mined excavation height of about 50 feet. Slopes adjoining the quarry are steep, varying from 1.5h:1v to 1h:1v slope ratio, with about 600 feet in relief to the top of the ridge above the mining area. The slopes are deemed to be grossly stable and have a low potential for slope failure. No adverse geologic structures such as daylighted bedding planes, daylighted jointing planes, or highly fractured rock were observed in the slopes within and adjacent to the quarry.

A landslide (debris slide) occurred in May, 2019, at the upper southeast side of the mining area, originating from within the natural slope area just above the mined area. The landslide was approximately 40 feet in width, 5-10 feet in depth, and about 150 feet in length. No damages occurred as a result of the landslide, and rock material from the landslide were removed from the mining roadbed surface.

Conclusions and Recommendations

The slope conditions do not appear to be significantly changed from those described in the report by Norfleet Consultants, dated 01/15/18. Mined slopes are performing satisfactory. The slope conditions are considered to be suitable for continued mining activity. Rock topple or rock spall can occur from mined slope areas, particularly following seasonal rainstorms, so that loose rock material should be removed from the mined slope surfaces.

REMARKS

Please call this office at (805) 484-5070 if you have any questions regarding this report.

Respectfully submitted,

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APPENDIX
REFERENCE MATERIALS

California Division of Mines and Geology, Landslide Map of the Central and Western Santa Monica Mountains, Los Angeles and Ventura Counties, Open-File Report 83-13, 1983.

California Division of Mines and Geology, Seismic Hazards Zone Map for the 7.5-minute Point Dume Quadrangle, 2001.

Dibblee, T.W., Jr., and Ehrenspeck, H.E., 1994, Geologic Map of the Point Dume Quadrangle, Los Angeles County, California: Dibblee Geological Foundation.

Norfleet Consultants, Geologic Slope Review, Ojai Quarry, Ojai, CA; dated 01/15/18.