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March 8, 2021 Project No. 21003

Adam Y. Han
Anlex Rock and Minerals, Inc.
2225 Commonwealth, Ste 218
Alhambra, CA 91803

Subject: Geologic Slope Stability Evaluation Report for A Mine and Reclamation Plan Renewal
Wine Rock Quarry (CA Mine ID #91-36-004)
Newberry Road
N ½, NE ¼, Section 9, T. 8 N., R. 3 E.
Newberry Springs, California

Dear Mr. Han:

In accordance with your request and the geologic requirements stated in the California Department of Conservation (CDC) letter dated March 25, 2020, I have performed a geologic slope stability evaluation on the subject parcel located about 2 miles southeast of the town of Newberry Springs, California. The results of the study indicate that mostly andesite rock underlies the area of the Wine Rock Quarry proposed for re-permitting. Careful inspection and surface mapping of geologic structures were performed within the quarry area. Generally, jointing and other fractures within the andesite dip favorably with respect to the proposed 2.5:1 (horizontal to vertical average) reclamation cut slopes within the quarry area. On the basis of my on-site inspection, it is concluded that the reclaimed cut slopes proposed on the Wine Rock Quarry new Reclamation Plan are structurally stable.

This report has been prepared for the exclusive use of Anlex Rock and Minerals, Inc., their representatives and direct clients, and because conditions may change over time due to earthquakes, rainstorms, construction, and other causes, this report may require updated inspections.

The opportunity to provide consulting services to you on this project is appreciated. If you have any questions regarding the report, please contact the undersigned at your convenience.

Respectfully submitted,

Stephen E. Jacobs

CERTIFIED ENGINEERING GEOLOGIST
STEPHEN E. JACOBS
No. 1307
Exp. 8/31/21
ENGINEERING GEOLOGY
STATE OF CALIFORNIA

Stephen E. Jacobs
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Attachments: Appendix A: References
Appendix B: Text Figures and Photographs

GEOLOGIC SLOPE STABILITY EVALUATION REPORT FOR A MINE AND RECLAMATION PLAN RENEWAL

Wine Rock Quarry (CA Mine ID #91-36-004)
Newberry Road
N ½, NE ¼, Section 9, T. 8 N., R. 3 E.
Newberry Springs, California

INTRODUCTION

This report presents the results of a geologic slope stability evaluation of the Anlex Rock & Minerals Wine Rock Quarry. The property is located on the west side of the southern leg of Newberry Road in the north half of the northeast quarter of Section 9, Township 8 North, Range 3 East SBBM. The quarry is shown on the Newberry Springs 7.5-minute quadrangle, about 2 miles southeast of the town of Newberry Springs, San Bernardino County, California (Figure Number 1). The approximate location of the project area is shown on the Site Location and Topographic Map (Figure Number 1) in the attached Appendix B of this report. An aerial view of the project area is shown on an aerial photograph (Figure Number 2).

The Wine Rock Quarry is an existing mine with a mining permit that expired on December 31, 2020. The existing quarry is comprised chiefly of Tertiary andesite, with minor tuff breccia. The andesite at the existing quarry has a bright reddish brown or pink color that is desirable as decorative rock. Steep rock slopes underlie the subject parcel at the existing quarry face. Accordingly, the primary purpose of this study was to evaluate stability of the final reclamation cut slopes within the proposed 24-acre Wine Rock Quarry area on the subject property.

PURPOSE AND CONCLUSION

I performed this slope stability evaluation to address potential reclaimed slope configurations designed for the Wine Quarry Reclamation Plan. My services included geologic mapping and data collection, collection of rock samples, and evaluation of the slope stability for the proposed reclamation rock slopes. I performed geologic field mapping on February 22, 2021. This evaluation characterized the anticipated stability conditions of the proposed reclamation cut slopes.

Data from my study indicates that the andesite rock material proposed for mining and reclamation is considered globally stable by field inspection, and proposed 2.5:1 average reclaimed slopes do not approach the critical gradient for slope failure.

Two (2) site geologic maps (Figure Numbers 4 and 5) and four (4) geologic cross-sections (Figure Numbers 6 through 8) are included as separate attachments in Appendix B of this report.

REVIEW OF PREVIOUS GEOLOGIC LITERATURE

As part of my study, I reviewed available published geologic literature and maps including publications by Dibblee and Bassett (1966) that cover the Newberry Springs 15-minute quadrangle. A regional geologic map is shown on Figure Number 3. A list of references is presented in Appendix A.

SITE AND PROPOSED PROJECT DESCRIPTION

The subject property is located on a 160-acre parcel (APN 0531-051-03). The 24-acre subject property proposed for side-hill quarry mining and reclamation is in the northern half of this parcel. The Wine Rock Quarry site is located east of Newberry Peak along the eastern flank of the Newberry Mountains in the Mojave Desert geomorphic province.

This structural block is generally comprised of granitic basement overlain by a sequence of Tertiary volcanic and sedimentary rocks (Dibblee and Bassett, 1966). The volcanic rocks are mapped as andesite and the sedimentary rocks as tuff breccia (Dibblee and Bassett, 1966). The sequence is tilted about 30-degrees toward the southwest (Dibblee and Bassett, 1966). The sequence is capped by localized alluvial fan deposits of Holocene to late Pleistocene age. According to the Site Location and Topographic Map (Figure Number 1), the Site Geologic Map No. 1 (Figure Number 4), and Google Earth^{TM} imagery (2021), the topography on the Wine Rock Quarry mine and reclamation area consists of a northwesterly trending ridge that rises above a gentler sloping alluvial fan, with elevations ranging from approximately 2,357 feet above MSL (mean sea level) in the northwestern portion to approximately 2,040 feet near the southeastern edge of the proposed area.

The Reclamation Permit (90M-09) that expired on December 31, 2020 encompassed approximately 50-acres; however, only 5 acres were disturbed. The request for a renewed reclamation plan addresses 24 acres for mining and reclamation.

Review of Aerial Photographs

Review of Google Earth^{TM} imagery dating from 1995 to 2021 shows mining and disturbance within the Wine Rock Quarry area. No disturbance consistent with mining or exploration was detected on the aerial photographs flown in 1952 (USDA, 1953), although such disturbance is evident back to 1983 on the HistoricalAerials.com website. A quarry is mapped in the area on USGS topographic quadrangle maps going back to 1955.

RECLAMATION SLOPE CONFIGURATIONS

The Wine Rock Quarry has been used for many years as a source of decorative rock. The major purpose of this slope stability evaluation is to help insure safe reclaimed slope heights and inclinations consistent with the California Surface Mine and Reclamation Act.

I was provided with topographic profiles for the proposed reclaimed slopes. For the purposes of this evaluation, the proposed major reclaimed slope heights shown on Geologic Cross-Sections A-A’ and B-B’ (Figure Numbers 6 and 7) range from about 210 to 270 feet at an overall inclination of approximately 2.5:1 or 21.6 degrees, in an average benched configuration.

The benching configuration evaluated and recommended was a 2.5:1 overall slope with approximately 20-foot high benches and interbench faces at 70 degrees from the horizontal. This design has catch benches of approximately 40 feet in width for a 21.6 degree average reclaimed slope.

FIELD EXPLORATION

As a Certified Engineering Geologist, I mapped geologic features as exposed in the existing quarry and in undisturbed outcrop along the ridge on the site on February 22, 2021, accompanied by Mr. Fred C. Johnson, a mining consultant geologist from Virgin, Utah. The mapping included measuring the orientation of geologic structures including joints, fractures/shears, and dikes using a Brunton compass and digital inclinometer. Site photographs were also obtained (see Photos 1 and 2 in Appendix B). The structural data and other features were plotted on the two site geologic maps, attached as Figure Numbers 4 and 5 in Appendix B of this report.

The majority of the reclaimed slopes will expose the andesite rock unit that has a typical average density of 163 pcf (pounds per cubic foot) with a range from 150 to 175 pcf.

REGIONAL GEOLOGY SETTING AND SITE GEOLOGY

The site is located within the Mojave Geomorphic Province of California, which is a broad interior region of isolated mountain ranges separated by expanses of desert plains. Geologic map units exposed within the site include Holocene to late Pleistocene age alluvial fan gravel and Miocene age or older andesite and tuff breccia. The units summarized below form the primary geologic materials mapped on the site. The rock unit designations are consistent with the mapping of Dibblee and Bassett (1966). A regional geologic map excerpt is also included as Figure Number 3. Two Site Geologic Maps (one showing existing topography and one showing proposed grade) are included as Figure Numbers 4 and 5 in Appendix B of this report.

Geologic Map Units

Alluvial Fan Gravel (Qf):

The southeastern portion of the quarry site is underlain with an estimated 20 feet of alluvial fan gravel. Dibblee and Basset (1966, p. 1) described this material as “Coarse gravel of unsorted subrounded fragments as large as 5 feet in diameter, derived from adjacent mountains and deposited as alluvial fans.”

Andesite (Ta):

The majority of the site is mapped as underlain by the volcanic rock called andesite. Dibblee and Bassett (1966, p. 2) described this material as “Dark-reddish-brown to gray, massive porphyritic volcanic rocks, mostly andesite, but ranging to latite." In the existing quarry area, the andesite appears mostly hard, pale reddish brown or pink with an approximately 3-foot thick moderately to highly fractured, medium to dark gray andesite dike; some orange-brown to maroon colored iron-oxide staining was noted on one of the joint surfaces within the dike (see Photos 1 and 2).

Tuff Breccia (Tt):

The eastern and western edges surrounding the quarry site are mapped as rock called tuff breccia. Dibblee and Bassett (1966, p. 2) described this material as “Yellowish- to light-greenish-gray, crudely bedded tuff breccia composed of angular andesitic fragments, mostly less than 6 inches in diameter, in matrix of light-colored tuff."

Geologic Structure

The site includes Tertiary-age (Miocene or older) volcanic and sedimentary rocks. Structural elements within these rock units exposed in the proposed quarry expansion are dominated by local, crudely defined bedding and joints. At the mine bench scale, the primary influence on stability of rock material is anticipated to be localized fractures or shears that dip out of slope with respect to future bench faces. These fractures range in dip from approximately 30 to 65 degrees. However, the steeply dipping joints are not anticipated to dip out of slope with respect to future bench faces.

Dibblee and Bassett (1966) mapped the regional bedding within the volcanic rock units in the site vicinity as dipping 30 degrees to the southwest. Most structures mapped within the andesite during my field observation are joints. Three prominent steeply dipping (70-90 degrees) joint orientation sets were recognized in the field: Set One - North 45-67 degrees East, Set Two – North 30-45 degrees West, and Set Three - North 4 degrees West to North 7 degrees East.

The approximately 3-foot thick gray andesite dike exposed in the existing quarry face strikes approximately North 30 degrees West, and dips approximately 75 degrees to the northeast, which is parallel to one of the joint sets.

SEISMIC CONSIDERATIONS

Much of Southern California, including the Mojave Desert area, is characterized by a series of fault zones with evidence of some Quaternary-age movements. These zones typically consist of several individual, en echelon faults that generally strike in a northerly to northwesterly direction. Some of these fault zones (and the individual faults within the zones) are classified as active while others are classified as only potentially active, according to the criteria of the California Division of Mines and Geology (currently California Geological Survey; CGS, 2018). Active fault zones are those that have shown conclusive evidence of faulting during the Holocene Epoch (the most recent 11,700 years), while potentially active fault zones have demonstrated movement during the Pleistocene Epoch (11,700 to 2.6 million years before the present), but no movement during Holocene time.

The potential for ground-shaking hazard at the site was evaluated from a deterministic standpoint for use as a guide to formulate an appropriate seismic coefficient for use in slope stability evaluation. The deterministic calculation of peak ground acceleration (PGA) was made using the U.S. Seismic Design Maps (OSHPD, 2021) and Unified Hazard Tool (USGS, 2021a) websites. For the active Calico-Hidalgo fault zone with a MCE (maximum considered earthquake) magnitude of approximately 7.4 at a distance of approximately 1.2 kilometers (0.75 mile) northeast of the site, the estimated PGA (peak ground acceleration) values range from 0.52 to 0.63g. The active Camp Rock fault zone yields a MCE magnitude of approximately 7.3 at a distance of approximately 13 kilometers (8 miles) southwest of the site.

No active or potentially active faults are mapped on or near the site according to the U.S. Geological Survey (Dibblee and Bassett, 1996) and the California Geological Survey (CDMG, 1995; Jennings and Bryant, 2010). No faults were observed on the site. The nearest active fault is the Calico-Hidalgo fault zone located approximately 1.2 kilometers (0.75 mile) northeast of the site. The potential for ground surface rupture through the site due to active faulting is considered low.

SLOPE STABILITY

Slope stability evaluations were performed for the proposed reclamation rock slopes shown on the geologic cross sections (Figure Numbers 6 through 8) presented in Appendix B of this report. A small slope (wedge) failure was noted along a southeasterly dipping (approximately 30-35 degrees) fracture or shear in the existing steep (about 20-foot high) cut face of the quarry (see Photo 2). Potential slope failures at the site include wedge failures that could occur along shallow dipping fractures, and slumps and topples that may occur along near-vertical joint surfaces in steep cut slopes.

The steeply to near-vertically dipping joint planes in the andesite rock material are generally considered not susceptible to wedge failures in the proposed 2.5:1 reclaimed cut slopes. However, toppling along joints in near-vertical bench cuts would be anticipated. Small wedge failures are possible along localized southeasterly dipping fractures that dip less than approximately 20 degrees out of the proposed 2.5:1 reclaimed cut slopes.

Therefore, the andesite rock material in the reclaimed 2.5:1 bench design is considered globally stable by field inspection and doesn’t approach the critical gradient for slope failure.

GROUNDWATER

No evidence for springs or shallow groundwater was observed on the site. There is no well or groundwater data reported on or near the site according to the California

Department of Water Resources Water Data Library website (DWR, 2021) website. However, review of two U.S. Geological Survey (2021b, 2021c) water data websites revealed two water wells located downstream in the valley below and about 1 to 1.5 miles northeast from the site. These wells reported groundwater depths at approximately 300 feet below the mine elevation.

Localized seepage is anticipated along fractures and joints, as past seepage is evidenced by the iron-oxide staining on a joint surface in the gray andesite dike exposed in the quarry face (see Photo 2).

FINDINGS AND CONCLUSIONS

Based on my geologic field observations and subsequent slope stability evaluations, it is my opinion that stable rock reclamation slopes are feasible, with respect to slope stability, from a geological standpoint. Slopes formed in the rock units at overall designed reclaimed 2.5:1 (about 21 degrees) inclinations are considered stable by inspection, with localized structures at less than about 21 degrees within these slopes potentially unstable. However, my field mapping found only a few of these shallow dipping structures.

No active or potentially active faults are mapped on or near the site as per mapping by the U.S. Geological Survey and California Geological Survey. The potential for ground surface rupture through the site due to active faulting is therefore considered low. Moderate seismic shaking of the site could be expected to occur during the lifetime of the proposed mining and reclamation.

The rock mass within the existing quarry area is generally competent and capable of forming stable slopes at the proposed slope angles for reclamation. The rock structure includes joint systems and other fractures that have been evaluated to yield suitably stable rock slopes. Localized structures such as shallow dipping daylighted fractures or shears at bench scale may form zones that require scaling and/or excavation to flatten or steepen face angles to achieve suitable reclamation conditions. When reclamation slopes are excavated, a qualified professional should examine the slope conditions to determine conformance with the reclamation plan.

Slow raveling processes during and after quarry operation, may, with time, result in deposition of limited talus on benches. Talus left on the benches can facilitate revegetation and lend a more natural appearance to the reclaimed slopes. It is anticipated that rock fragments will be angular and relatively resistant to rolling. Therefore, rockfall hazard is not anticipated for properly excavated and scaled rock slopes.

Based on anticipated reclamation slope conditions, use of netting or other engineered installations to mitigate toppling or rockfall is not considered necessary; however, these measures, as well as a berm at the toe of the final quarry slopes, may be considered if warranted by future conditions. As is typical for any surface mining location, I recommend periodic observation of mine benches for indications of potential instability above working areas during mine operations.

Visual inspection of rock excavations and reclamation slopes/benches should be performed to address the potential for unknown or newly exposed discontinuities/geologic conditions. If raveling or instability is evident due to features in the geologic structure, the bench width may be increased to provide a suitable buffer to daylighted or unstable features and a sufficient area to mitigate rockfall.

Production blasting and/or mechanical excavation are suitable for developing mine slopes in the evaluated rock. However, when reclaimed slope faces are reached, blasting should be planned and controlled so that final catch benches are constructed in accordance with the approved reclamation plan and to avoid excess disturbance to finished surfaces. Degradation or clogging of catch benches can allow rockfall to reach lower mine levels and should be mitigated.

Provision of terraces and/or berms to convey surface drainage away from slope faces in overburden stockpile slopes should be considered for reclamation stockpile slopes.

This report is intended to address the proposed reclamation and is not applicable to working mine (interim) slopes which may be steeper and/or of different configuration than the reclamation plan.

GENERAL COMMENTS AND LIMITATIONS

My evaluation and opinions are based upon my understanding of the project, the geological conditions in the area, and the data obtained from my site observation. Natural variation will occur between observation point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, a qualified engineering geologist and/or geotechnical engineer should provide further evaluation and supplemental recommendations.

Appendix A

REFERENCES

Anlex Rock and Minerals Inc., 2021, Reclamation Design plans, 10’ Contours, and Section Profiles, dated January 29, 2021.

California Department of Water Resources (CDWR), 2021, Water Data Library, website: https://wdl.water.ca.gov.

California Division of Mines and Geology (CDMG; currently the California Geological Survey), 1995, Earthquake Hazard Zones (formerly Alquist-Priolo Special Studies Zone) Map of the Newberry Springs Quadrangle, scale 1:24,000.

California Geological Survey (CGS), Revised 2018, Earthquake Fault Zones: A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture hazards in California: Special Publication 42.

Dibblee, T.W., Jr., and Bassett, A.M., 1966, Geologic Map of the Newberry Quadrangle, San Bernardino County, California: U.S. Geological Survey Miscellaneous Geologic Investigations Map I-461. Scale 1:62,500.

Google Earth^{TM}, 2021, web-based software application, aerial imagery, dated from 1995 through 2020.

Historic Aerials, 2021, Aerial photographs from 1983 though 2020 and topographic maps from 1953 to 2018, Netroline, website: https://www.historicaerials.com.

Jennings, C.W., and Bryant, W.A., 2010, Fault Activity Map of California: California Geological Survey, Geologic Data Map No. 6, scale 1:750,000.

Office of Statewide Health Planning and Development (OSHPD), 2021, U.S. Seismic Design Maps, website: https://seismicmaps.org.

U.S. Department of Agriculture (USDA), 1953, Aerial photograph, Flight No. AXL-1953B, Frame No. 16K-66, scale 1:20,000, flight dated November 26, 1952.

U.S. Geological Survey, 1955, Topographic map of the Newberry 15-minute quadrangle, California, scale 1:62,500.

REFERENCES
(Continued)

U.S. Geological Survey, 1982 (minor revision 1993), Topographic map of the Newberry Springs 7.5-minute quadrangle, California, scale 1:24,000.

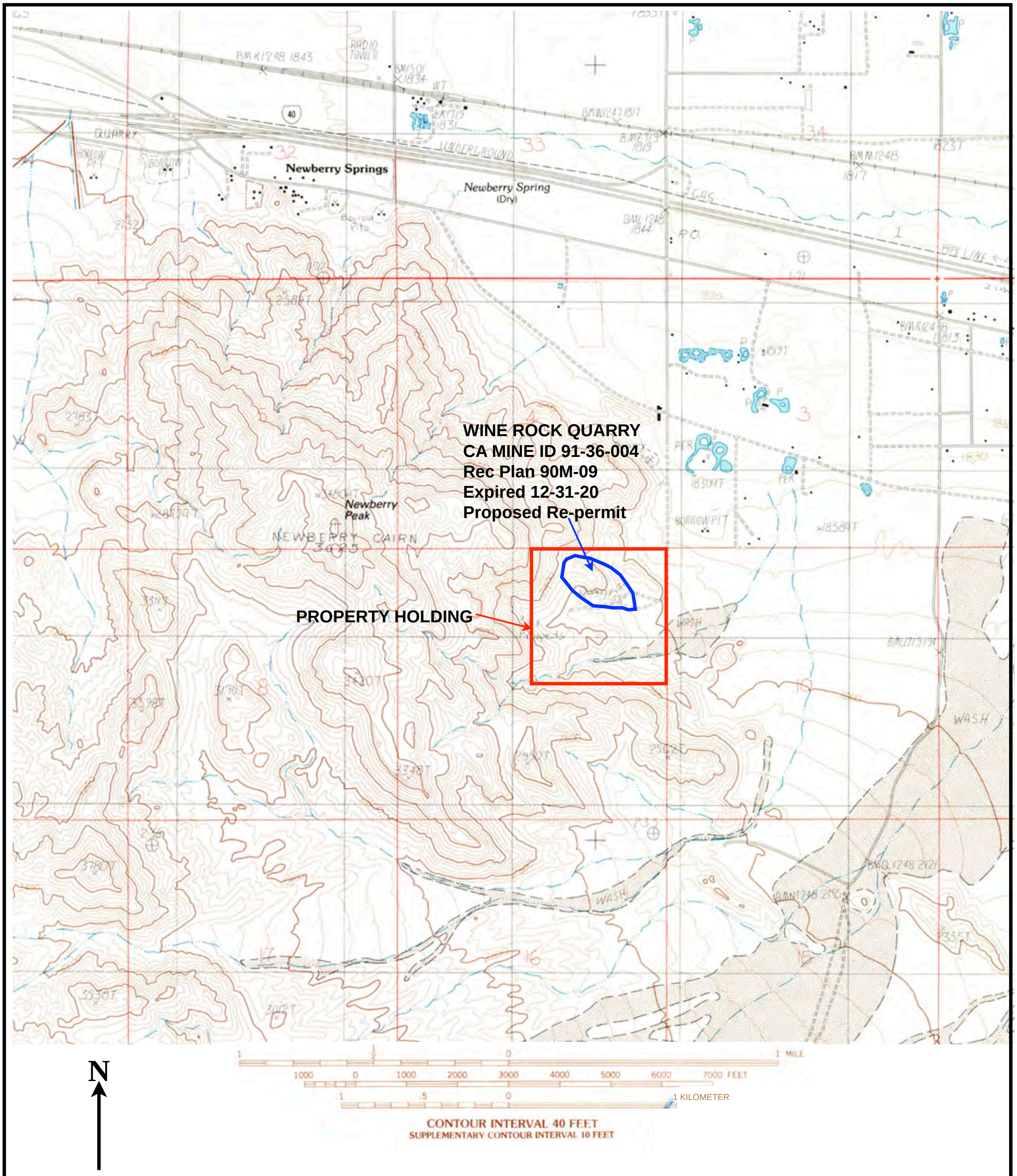
U.S. Geological Survey, 2021a, Unified Hazard Tool (USGS website: https://earthquake.usgs.gov/hazards/interactive/.

U.S. Geological Survey, 2021b, Mojave Groundwater Data, Mojave Groundwater Resources, California Water Science Center, website: https://www.usgs.gov/centers/ca-water.

U.S. Geological Survey, 2021c, Water Resources, National Water Information System: Web interface, website: https://waterdata.usgs.gov/nwis.

Appendix B

TEXT FIGURES AND PHOTOGRAPHS



Reference: Excerpt of USGS Topographic
Map of the Newberry Springs 7½'
Quadrangle (1982; minor revision 1993)

FIGURE NO. 1:
SITE LOCATION AND TOPOGRAPHIC MAP
Wine Rock Quarry
Newberry Springs, CA

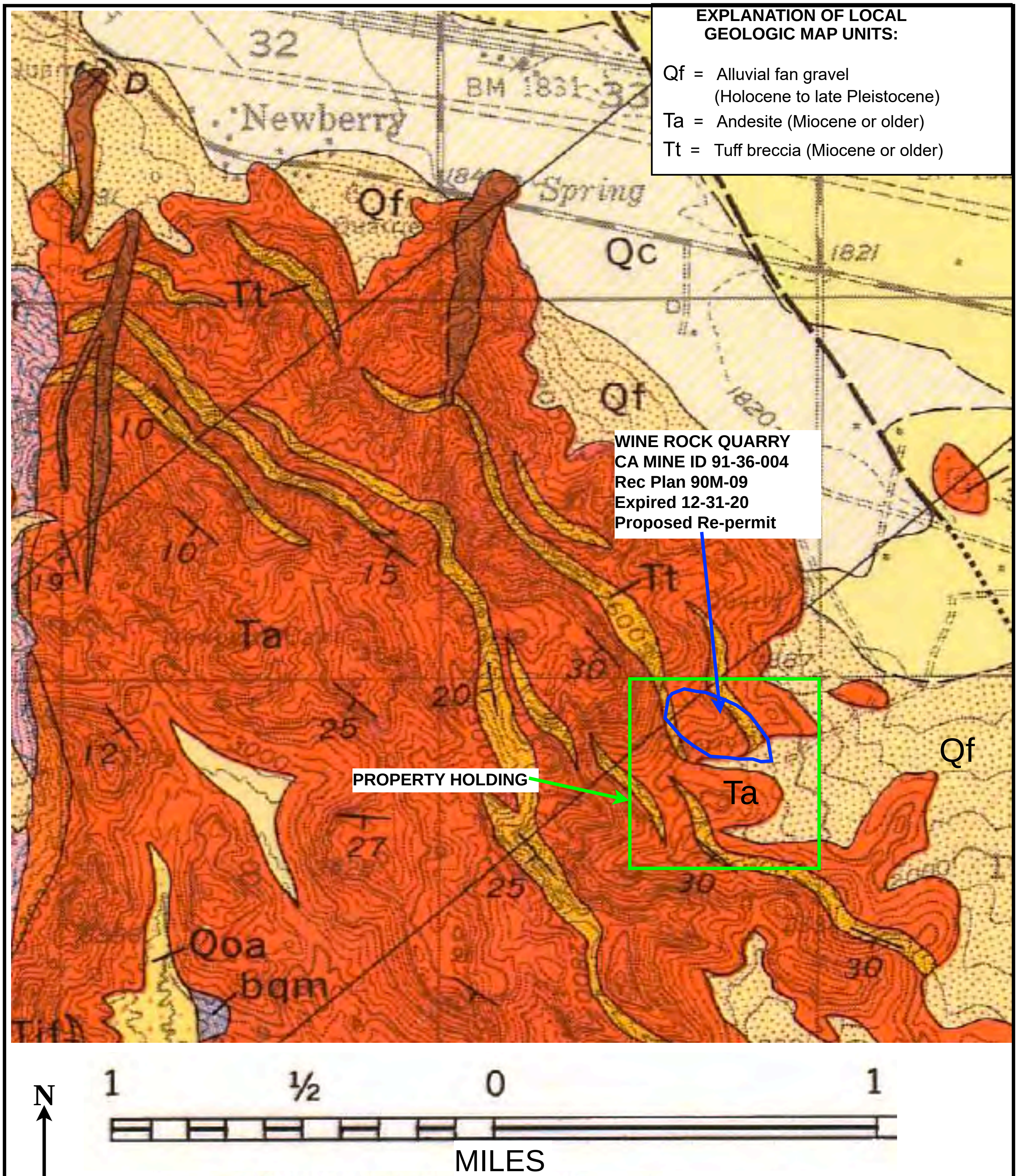
Stephen E. Jacobs, C.E.G.

WINE ROCK QUARRY
CA MINE ID 91-36-004
Rec Plan 90M-09
Expired 12-31-20
Proposed Re-permit

Reference: Excerpt of aerial photograph from Google Earth^{TM} (2021), imagery dated June 29, 2014.

FIGURE NO. 2:
AERIAL PHOTOGRAPH
Wine Rock Quarry
Newberry Springs, CA

Stephen E. Jacobs, C.E.G.



EXPLANATION OF LOCAL GEOLOGIC MAP UNITS:

Qf = Alluvial fan gravel (Holocene to late Pleistocene)
Ta = Andesite (Miocene or older)
Tt = Tuff breccia (Miocene or older)

WINE ROCK QUARRY
CA MINE ID 91-36-004
Rec Plan 90M-09
Expired 12-31-20
Proposed Re-permit

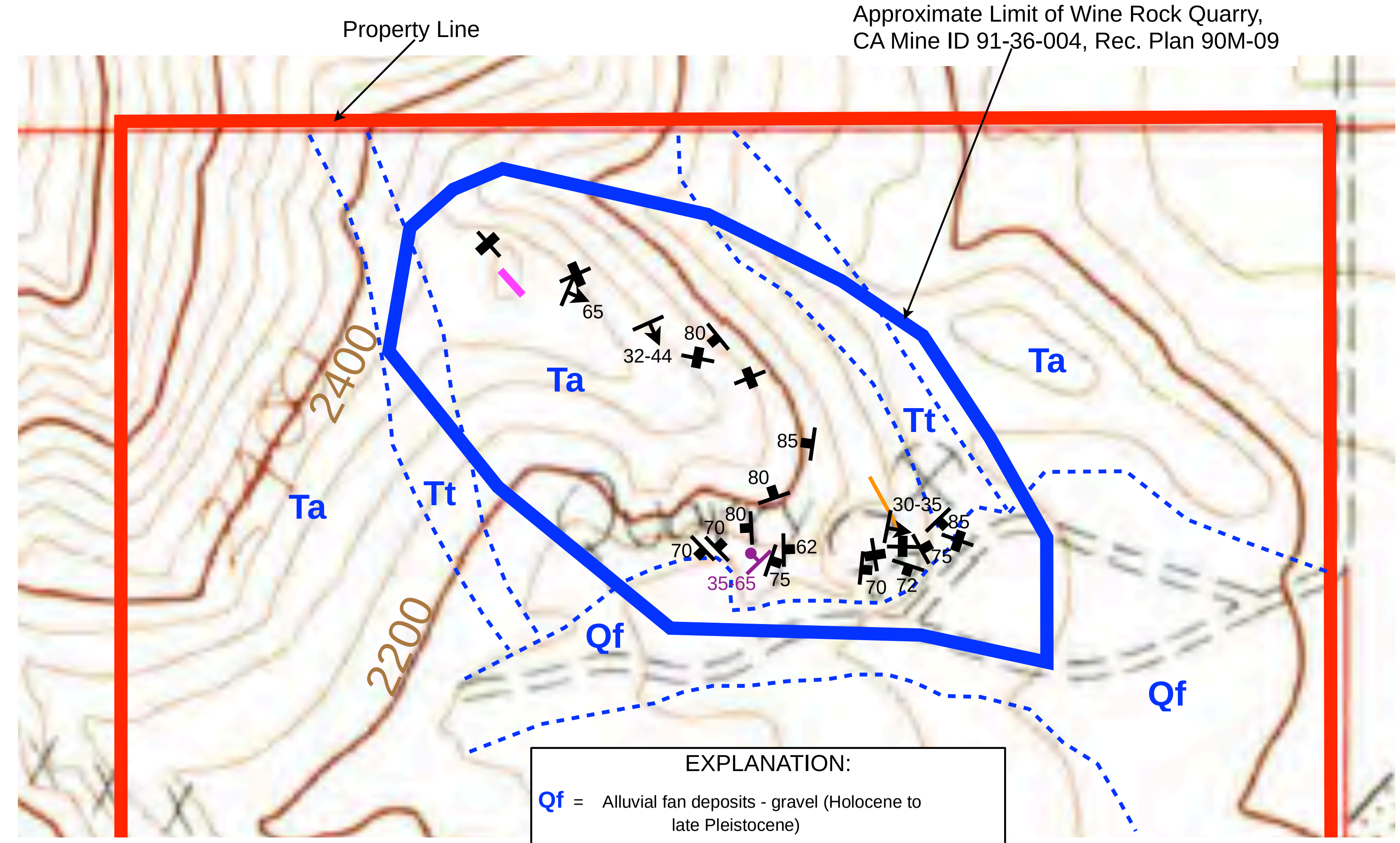
PROPERTY HOLDING

CONTOUR INTERVAL 40 FEET
DASHED LINES REPRESENT 20-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

Reference: Excerpt of Geologic Map of the Newberry Quadrangle, San Bernardino County, California, by Dibblee and Bassett (1966)

FIGURE NO. 3:
REGIONAL GEOLOGIC MAP
Wine Rock Quarry
Newberry Springs, CA

Stephen E. Jacobs, C.E.G.



0 1000

FEET

N

Base topographic map is an excerpt from U.S.G.S. Newberry Springs, Calif. 7½' quadrangle, scale: 1:24,000, dated 1982 (minor revision 1993)

EXPLANATION:

Qf = Alluvial fan deposits - gravel (Holocene to late Pleistocene)

Ta = Andesite (Miocene or older)

Tt = Tuff Breccia (Miocene or older)

- - - Approximate location of geologic contact

80 Strike and dip of joint

Strike of vertical joint

30 Strike and dip of fracture or shear

35 Strike and dip of flow banding

~3-foot thick gray andesite dike

~5- to 10-foot thick zone of highly fractured rock

Note: all locations are approximate

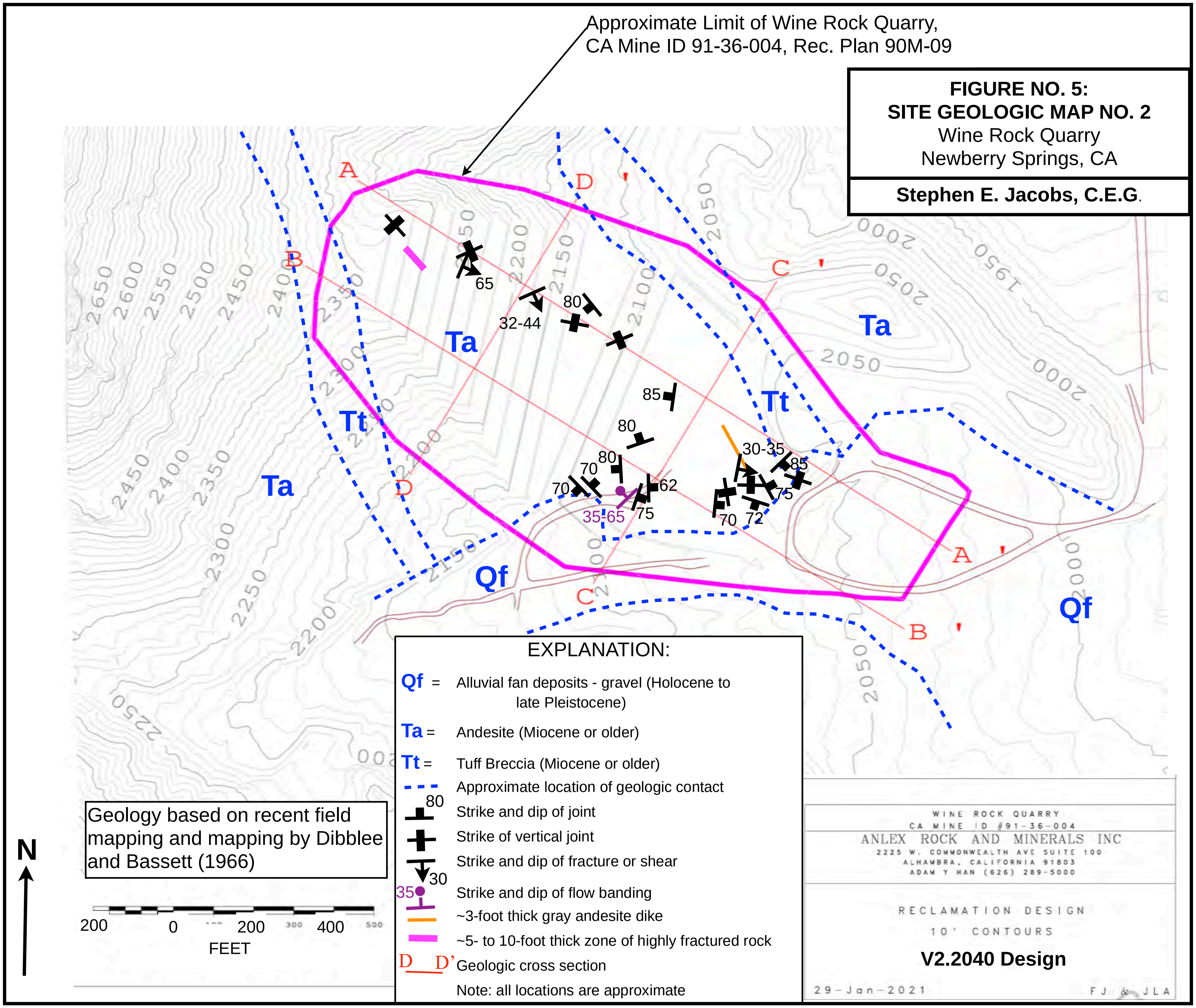
Geology based on recent field mapping and mapping by Dibblee and Bassett (1966)

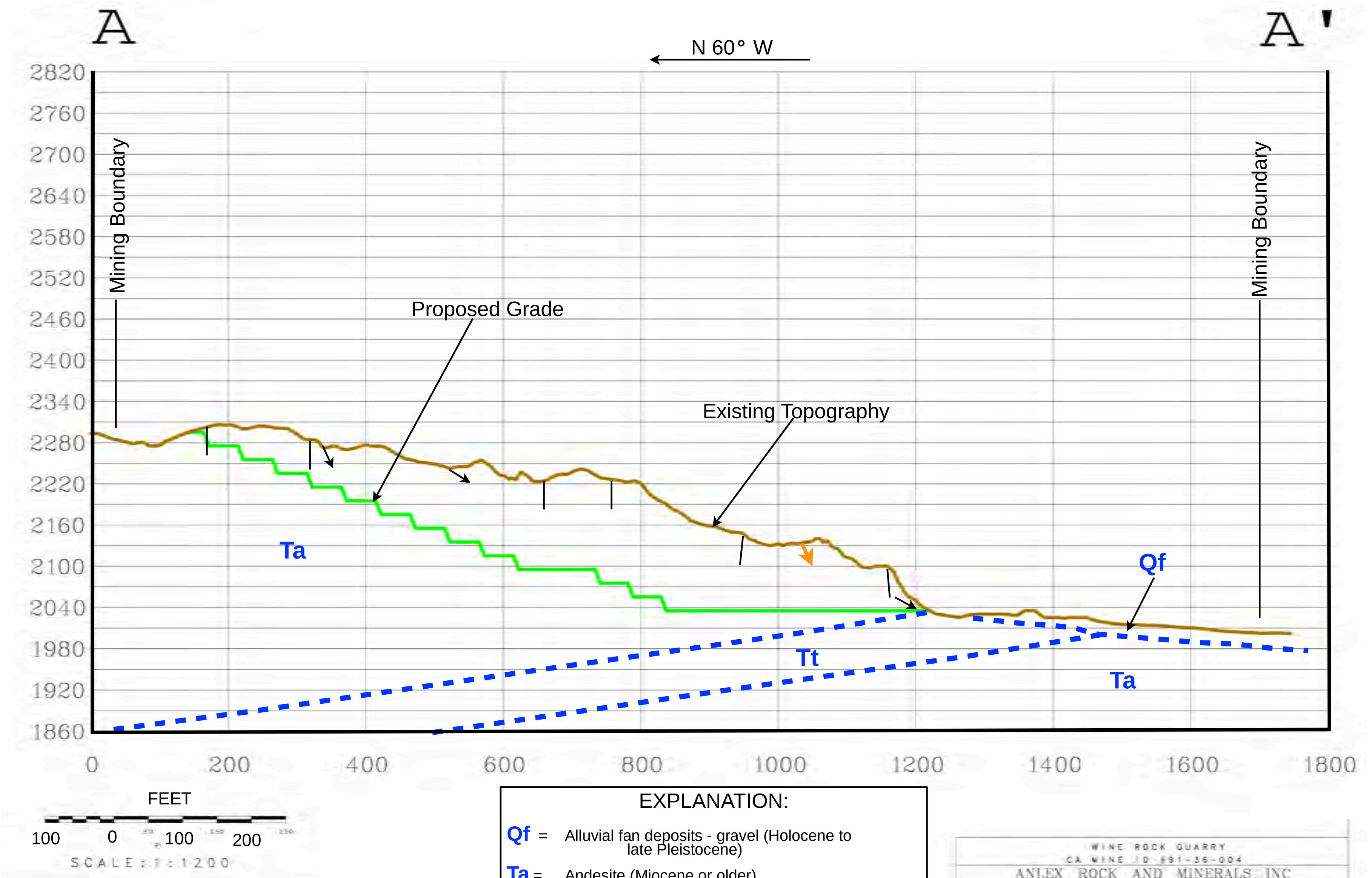
FIGURE NO. 4:
SITE GEOLOGIC MAP NO. 1
Wine Rock Quarry
Newberry Springs, CA

Stephen E. Jacobs, C.E.G.

FIGURE NO. 5:
SITE GEOLOGIC MAP NO. 2
Wine Rock Quarry
Newberry Springs, CA

Stephen E. Jacobs, C.E.G.





EXPLANATION:

Qf = Alluvial fan deposits - gravel (Holocene to late Pleistocene)

Ta = Andesite (Miocene or older)

Tt = Tuff Breccia (Miocene or older)

- - - Approximate location of geologic contact

— Apparent dip of joint

← Apparent dip of fracture or shear

← Apparent dip of gray andesite dike (projected)

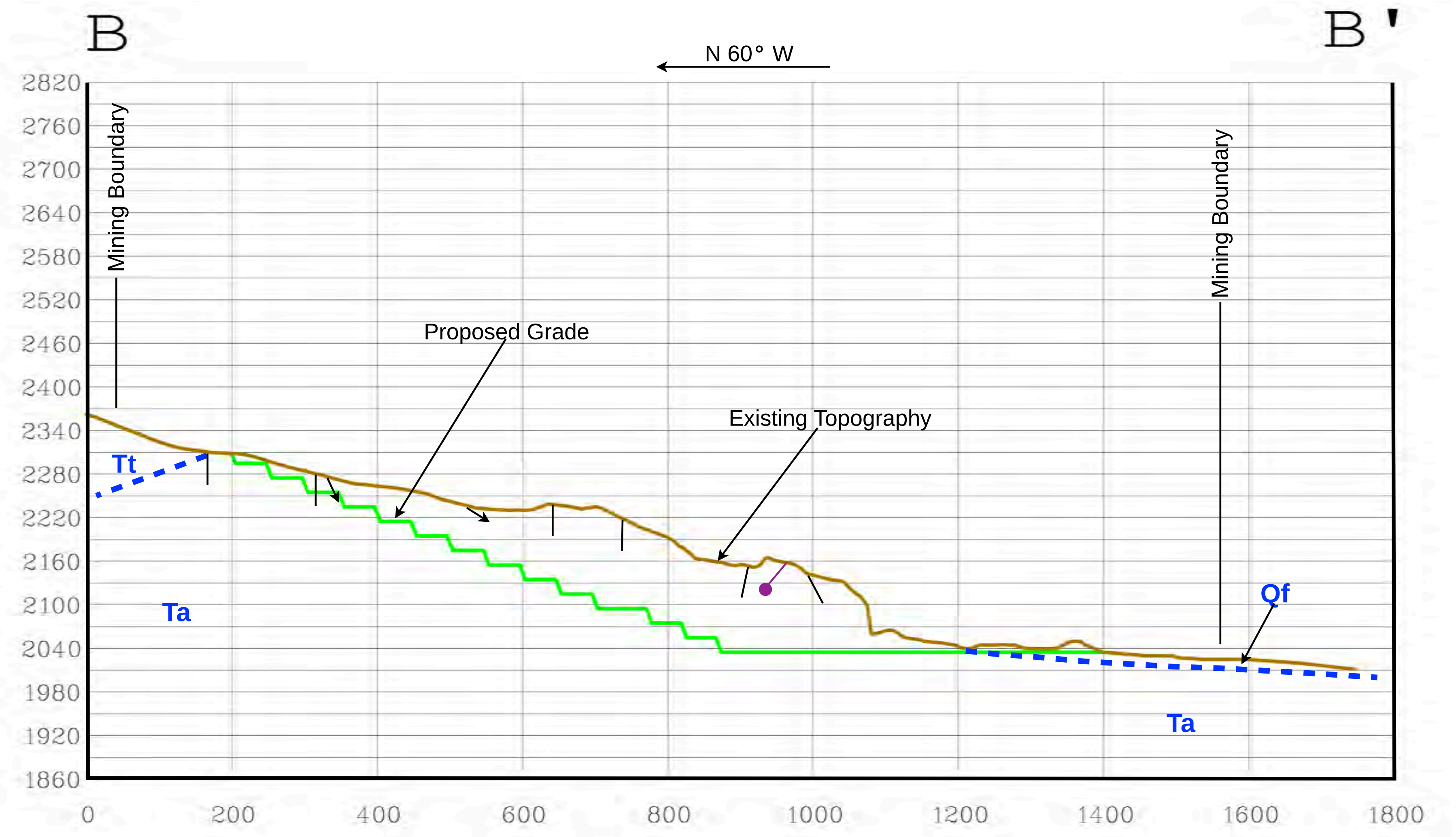
Note: all locations are approximate

FIGURE NO. 6:
GEOLOGIC CROSS-SECTION A-A'
Wine Rock Quarry
Newberry Springs, CA

Stephen E. Jacobs, C.E.G.

WINE ROCK QUARRY
CA MINE ID #91-36-004
ANLEX ROCK AND MINERALS INC
2225 W. COMMONWEALTH AVE SUITE 100
ALHAMBRA, CALIFORNIA 91803
ADAM Y HAN (626) 289-5000

RECLAMATION DESIGN
SECTION PROFILE
SECTION A - A'
V2.2040 Design
29-Jan-2021
FJ & JLA



FEET

100 0 100 200

SCALE: 1:1200

FIGURE NO. 7:
GEOLOGIC CROSS-SECTION B-B'
Wine Rock Quarry
Newberry Springs, CA

Stephen E. Jacobs, C.E.G.

EXPLANATION:

Qf = Alluvial fan deposits - gravel (Holocene to late Pleistocene)
Ta = Andesite (Miocene or older)
Tt = Tuff Breccia (Miocene or older)
- - - Approximate location of geologic contact
— Apparent dip of joint
← Apparent dip of fracture or shear
●— Apparent dip of flow banding

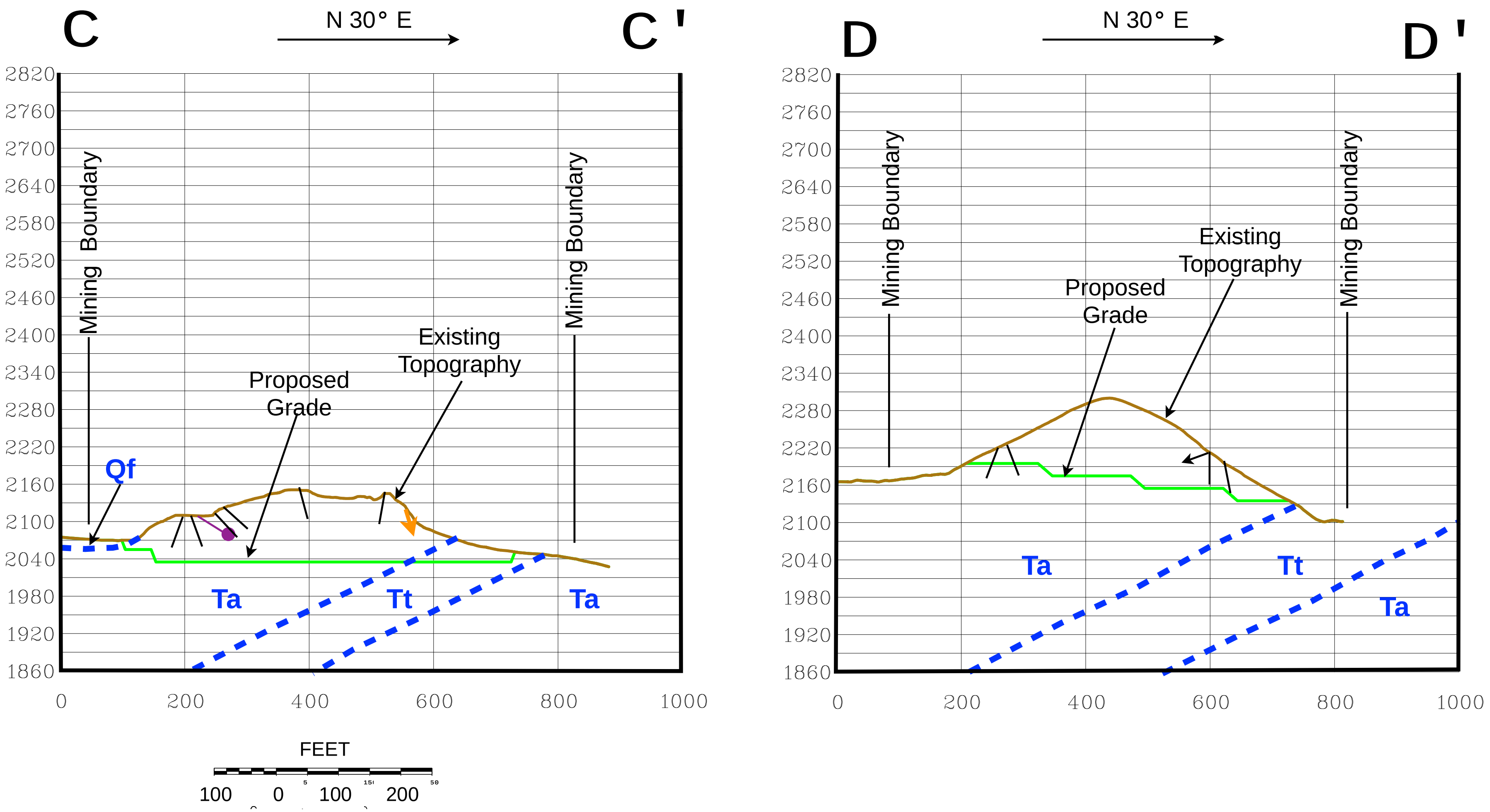
Note: all locations are approximate

WINE ROCK QUARRY
CA MINE ID #91-36-004

ANLEX ROCK AND MINERALS INC
2225 W. COMMONWEALTH AVE SUITE 100
ALHAMBRA, CALIFORNIA 91803
ADAM Y HAN (626) 289-5000

RECLAMATION DESIGN
SECTION PROFILE
SECTION B — B'
V2.2040 Design

9-Jan-2021 FJ & JLA



EXPLANATION:

Qf = Alluvial fan deposits - gravel (Holocene to late Pleistocene)

Ta = Andesite (Miocene or older)

Tt = Tuff Breccia (Miocene or older)

- - - Approximate location of geologic contact

— Apparent dip of joint

← Apparent dip of fracture or shear

● Apparent dip of flow banding

← Apparent dip of gray andesite dike (projected)

Note: all locations are approximate

FIGURE NO. 8:
GEOLOGIC CROSS-SECTIONS C-C' & D-D'

Wine Rock Quarry
Newberry Springs, CA

Stephen E. Jacobs, C.E.G.

WINE ROCK QUARRY
CA MINE ID #91-36-004
ANLEX ROCK AND MINERALS INC
2225 W. COMMONWEALTH AVE SUITE 100
ALHAMBRA, CALIFORNIA 91803
ADAM Y HAN (626) 289-5000

RECLAMATION DESIGN
SECTION PROFILE
SECTIONS C – C' and D – D'
V2.2040 Design
29-Jan-2021
FJ & JLA

Photo 1. Existing rock quarry face viewed toward the northwest showing reddish brown andesite rock material and gray andesite dike

Photo 2. Closeup of existing rock quarry face viewed toward the northwest showing jointed reddish brown andesite rock material and highly fractured gray andesite dike with orange oxidized joint surface. Note localized fracture/shear surface.

SITE PHOTOGRAPHS
Wine Rock Quarry
Newberry Springs, CA

Stephen E. Jacobs, C.E.G.