June 18, 2024

GOLD DISCOVERY GROUP LLC
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SUBJECT: **Results of a Desert Tortoise (*Gopherus agassizii*) Presence/Absence Survey for Gold Discovery Group's Persistence Mine Project Located in Unincorporated San Bernardino County, California**

Introduction

This report contains the findings of ELMT Consulting's (ELMT) desert tortoise presence/absence survey for Gold Discovery Group's Persistence Mine project (project site or site) located in the unincorporated area of Atolia, in San Bernardino County, California. The survey was conducted by biologists Travis J. McGill, Jacob H. Lloyd Davies, and Rachael A. Lyons on April 18, 2024, to document the presence/absence of desert tortoise within the boundaries of the survey area.

Project Location

The project site is generally located north of State Route 58, east of United States Route 395, south of State Route 178, and west of State Route 127 in unincorporated San Bernardino County, California. The site is depicted on the Red Mountain quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map within Section 20 of Township 30 South, Range 41 East. Specifically, the project site is bounded to the west by an easement along United States Route 395 and is located west of Cuddeback Dry Lake and directly south of the former Atolia Tungsten Mine. Refer to Exhibits 1-3 in Attachment A.

Project Description

Gold Discovery Group LLC has submitted a Plan of Operations to the Bureau of Land Management case file number: CACA10633367 for the Persistence Mine, which is a proposed 126-acre placer mining operation using only water and gravity recoverable methods to extract gold from the material on site near the former town of Atolia, California in western San Bernardino County, California. The Proposed Action also involves concurrent reclamation as Gold Discovery Group LLC advances its mining operation sequence.

Methodology

The potential presence of Mojave desert tortoise requires that biologists conduct focused surveys/pedestrian transects covering the project's action area in order to determine the presence or absence of desert tortoise within the action area (U.S. Fish and Wildlife Service [USFWS], 2018). The action area is defined as all areas to be directly or indirectly affected by the project (50 CFR §402.02). For this project, the action area includes the limits of disturbance and all areas that have the potential to be indirectly impacted by the

proposed project. Site characteristics including topography, presence of suitable habitat, and human disturbance were utilized to determine the lateral extent of the action area beyond the project footprint. The proposed action area was determined to be confined to the 126.2 acres proposed Persistence Mine site. For consistency, the action area is hereafter referred to as the survey area. Since the development footprint is less than 200 hectares (500 acres) in size, the Small Project Field Survey Protocol was used to determine the presence/absence of desert tortoise.

Desert Tortoise Presence/Absence Surveys

Transects were oriented north to south across the survey area and were spaced at 10-meter (33 feet) intervals throughout all suitable habitat to provide 100 percent visual coverage and increase the likelihood of locating desert tortoise and/or sign. All transects were walked at a pace that allowed for careful/detailed observation along transect routes and the immediate vicinity.

ELMT biologists conducted a 100 percent coverage survey from 0730 to 1130 hours on April 18, 2024, which falls within the desert tortoise's most active periods (April through May and September through October). Weather conditions during the survey included clear skies, calm wind conditions, and temperatures ranging from 54 to 72 degrees Fahrenheit. If present, any live desert tortoises and/or signs of (burrows, scat, carapace, drinking depressions) were recorded on USFWS pre-project survey field data sheets and marked using a Garmin GPSMap 64 Global Positioning System (GPS).

All burrows observed were thoroughly inspected for the presence of desert tortoise or evidence of recent use using non-intrusive methods (i.e., mirror, digital camera). Burrow characteristics including class, shape, orientation, size, and evidence of deterioration were recorded on field data sheets, when observed. In addition, each burrow, when observed, was photographed and given a class rating to describe the overall status and condition of the burrow.

Desert Tortoise

The Mojave population of the desert tortoise was listed as Threatened on April 2, 1990 and a recovery plan was published in June 1994 (revised May 2011) to describe a strategy for recovering the Mojave population of the desert tortoise including the identification of five recovery units, recommendations for a system of Desert Wildlife Management Areas (DWMAs) within the recovery units, and development and implementation of specific recovery actions, especially within DWMAs. The establishment of recovery units and DWMAs was intended to facilitate an ecosystem approach to land management and desert tortoise recovery. Based on the 2018 Revised Recovery Plan, **the survey area** is located within the Western Mojave Recovery Unit but **is not located within any designated DWMAs**. **The project site itself is not located within designated Desert Tortoise Critical Habitat**; however, designated Critical Habitat is present immediately south of the southern boundary, and east and west of the site (refer to Exhibit 4, *Critical Habitat*). **No desert tortoise have been recorded on the project site**. It should be noted that the nearest CNDDB observation for desert tortoise is located approximately 7.6 miles to the southwest and was recorded in 2005.

The Mojave population of the desert tortoise inhabits areas north and west of the Colorado River in the Mojave Desert of California, Nevada, Arizona, and southwestern Utah, and in the Sonoran Desert in California. Throughout the majority of the Mojave Desert, desert tortoises occur most commonly on gentle

sloping soils characterized by an even mix of sand and gravel and sparsely vegetated low-growing vegetation where there is abundant inter-shrub space. Typical habitat for the Mojave desert tortoise has been characterized as creosote bush scrub below 5,500 feet in elevation with a high diversity of perennial and ephemeral plants. The dominant shrub commonly associated with desert tortoise habitat is creosote bush (*Larrea tridentata*); however, other shrubs including burrobush (*Ambrosia dumosa*), Mojave yucca (*Yucca schidigera*), cheesebush (*Ambrosia salsola*), and Mojave prickly-pear (*Opuntia mojavensis*) also provide suitable habitat. The desert tortoise spends 95 percent of its life underground and will opportunistically utilize burrows of various lengths, deep caves, rock and caliche crevices, or overhangs for cover. Therefore, a moderately friable soil is required to allow for burrow construction and ensure that burrows do not collapse.

Site Conditions

The project site occurs in an area dominated by natural landscapes with scattered industrial land use areas present. The dominant land use type in the vicinity of site is former materials extraction operations and associated remnant "ghost towns." Presently, the site is bounded to the north by the former Atolia Tungsten Mine, to the west by United States Route 395, and to the east and south by unoccupied open spaces. In addition, a network of unpaved access roads and remnant haul roads traverses the site and adjacent areas.

On-site topography consists of rolling hills, low valleys, and flats, and generally slopes from west to east at an approximate elevation of 3,090 to 3,235 feet above mean sea level. Further topographic relief is present in the form of discarded fill and slag piles and exploratory trenches and pits.

Based on the NRCS USDA Web Soil Survey, soils underlying the project site and immediate vicinity are not mapped to family detail, and the Web Soil Survey identifies the site as being underlain by Cajon-Arizo and Randsburg-Muroc soil complexes. The majority of soils on-site persists in relatively natural states except those areas that were previously impacted by materials extraction activities, exploratory mining, and access road installation and maintenance.

One (1) plant community, Mojavean desert scrub, was observed within the boundaries of the project site. In addition, the site also supports one (1) land cover type that would be classified as disturbed.

The Mojavean desert scrub plant community supported by the project site supports a diverse shrub layer and robust herbaceous layer, consistent with other undeveloped/undisturbed plant communities nearby. Vegetative cover is usually consistent to sometimes sparse, and often features dense patches of herbaceous annuals in depressional features. Dominant shrubs supported in this plant community include creosote, burrobush, and cheesebush, which are commonly associated with desert tortoise, in addition to hairy goldenhead (*Acamptopappus sphaerocephalus*), cattle spinach (*Atriplex polycarpa*), spinescale saltbush (*Atriplex spinifera*), black brush (*Coleogyne ramosissima*), silver cholla (*Cylindropuntia echinocarpa*), Acton encelia (*Encelia actoni*), Cooper goldenbush (*Ericameria cooperi*), turpentine brush (*Ericameria laricifolia*), common rabbitbrush (*Ericameria nauseosa*), green rabbitbrush (*Ericameria teretifolia*), California buckwheat (*Eriogonum fasciculatum*), Weston's buckwheat (*Eriogonum nudum*), starry bedstraw (*Galium stellatum*), hop sage (*Grayia spinosa*), winter fat (*Krascheninnikovia lanata*), Anderson thornbush (*Lycium andersonii*), Cooper's box thorn (*Lycium cooperi*), Mojave indigo bush (*Psorothamnus arborescens*), Mexican bladder sage (*Scutellaria mexicana*), little leaf horsebrush (*Tetradymia glabrata*), Mojave cottonthorn (*Tetradymia stenolepis*). Common herbaceous species observed in the Mojavean desert

scrub plant community include devil's lettuce (*Amsinckia tessellata*), Mojave suncup (*Camissonia campestris*), Booth's evening primrose (*Eremothera boothii*), desert woollystar (*Eriastrum eremicum*), flatcrown buckwheat (*Eriogonum deflexum*), Pringle's woolly sunflower (*Eriophyllum pringlei*), redstem filaree (*Erodium cicutarium*), whitemargin sandmat (*Euphorbia albomarginata*), snake's-head (*Malacothrix coulteri*), desert dandelion (*Malacothrix glabrata*), lacy phacelia (*Phacelia tanacetifolia*).

Disturbed portions of the site are sometimes barren to sometimes sparse according to the degree and frequency of associated anthropogenic disturbance. The limited vegetation supported by the disturbed portions of the site primarily consists of annual herbaceous, with some especially hardy perennial species present.

Survey Results

Despite a systematic 100% visual survey of the project site, no live desert tortoises, potential desert tortoise burrows, or signs of desert tortoises were observed within the survey area. The estimated desert tortoise abundance is directly proportional to the number of tortoises observed above ground. Since no live desert tortoises were observed during the surveys, the estimated number of desert tortoises within the survey area is zero.

Conclusion and Recommendations

Since no live desert tortoises, potential desert tortoise burrows, or signs of desert tortoises were observed during the presence/absence survey, it was determined that the desert tortoise is absent from the project site. Even though desert tortoise were not detected within the survey area during the presence/absence survey, a pre-construction clearance survey is recommended to be conducted during the other pre-construction clearance surveys to ensure desert tortoise continue to remain absent from the project site prior to the commencement of ground disturbing activities.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions or require further information.

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

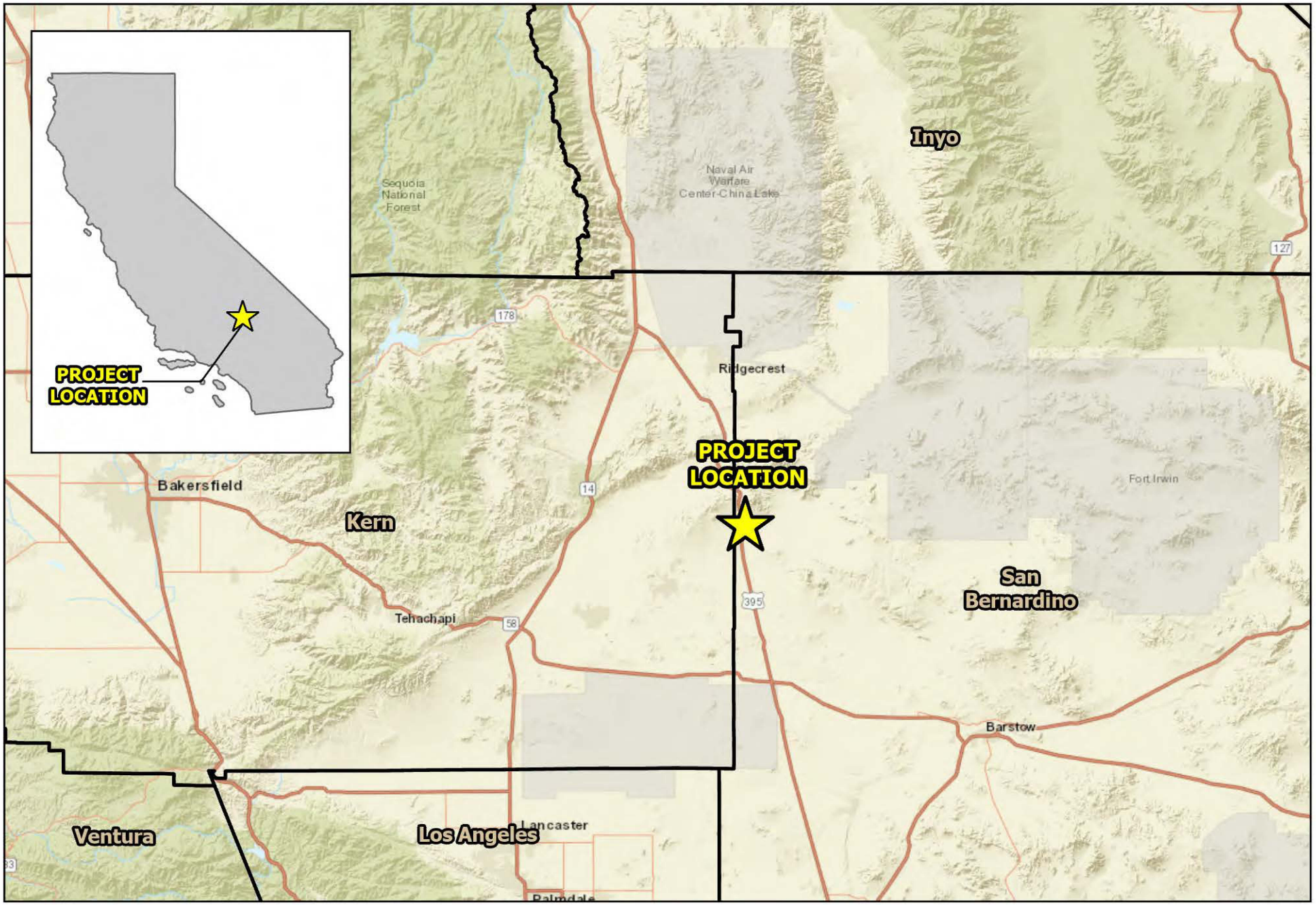
Travis J. McGill
Director

Attachments:

A. *Project Exhibits*
B. *Site Photographs*

Attachment A

Project Exhibits



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N

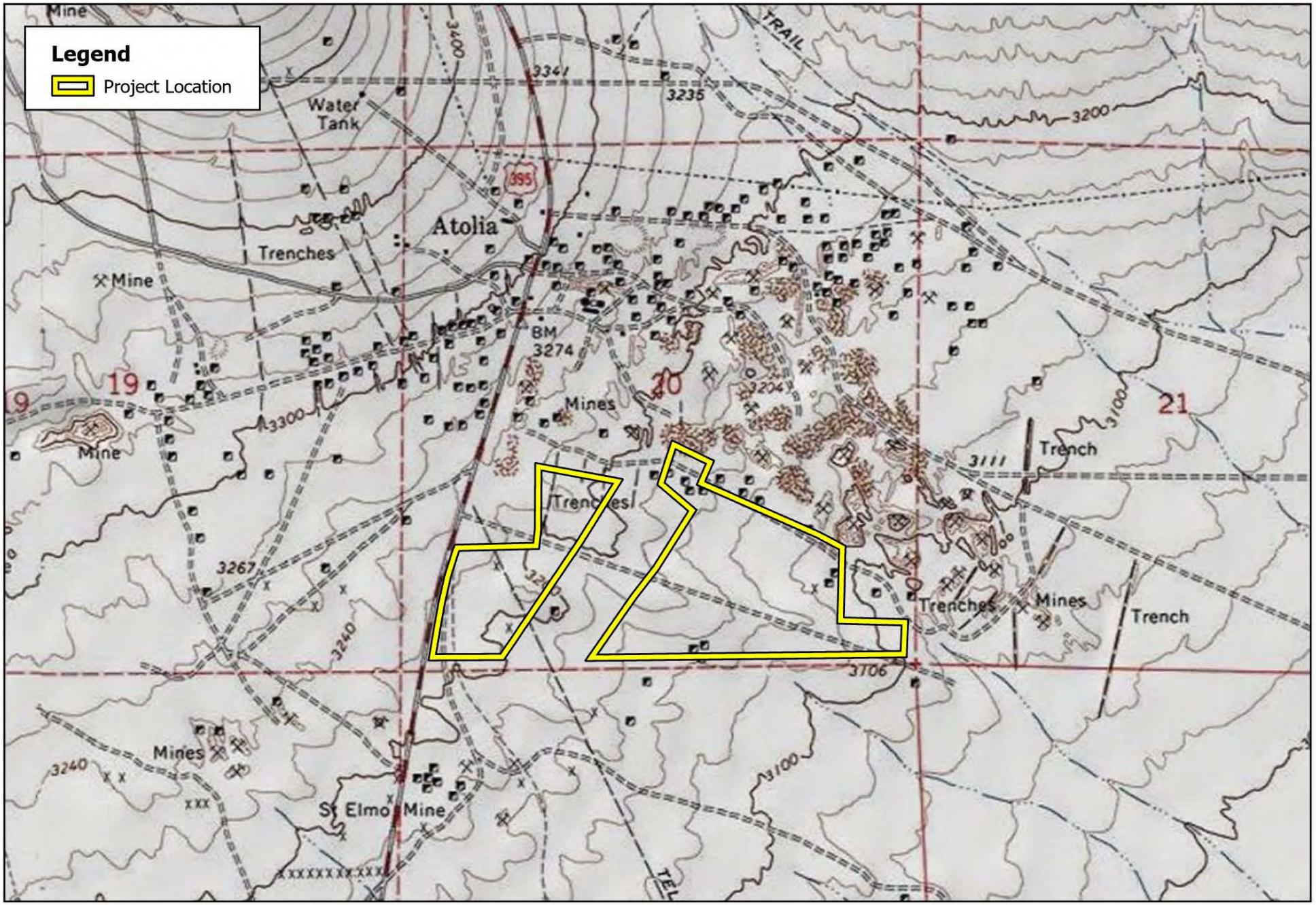
0 12.5 25 50 Miles

Source: Google Street Map, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

Regional Vicinity

Exhibit 1



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N

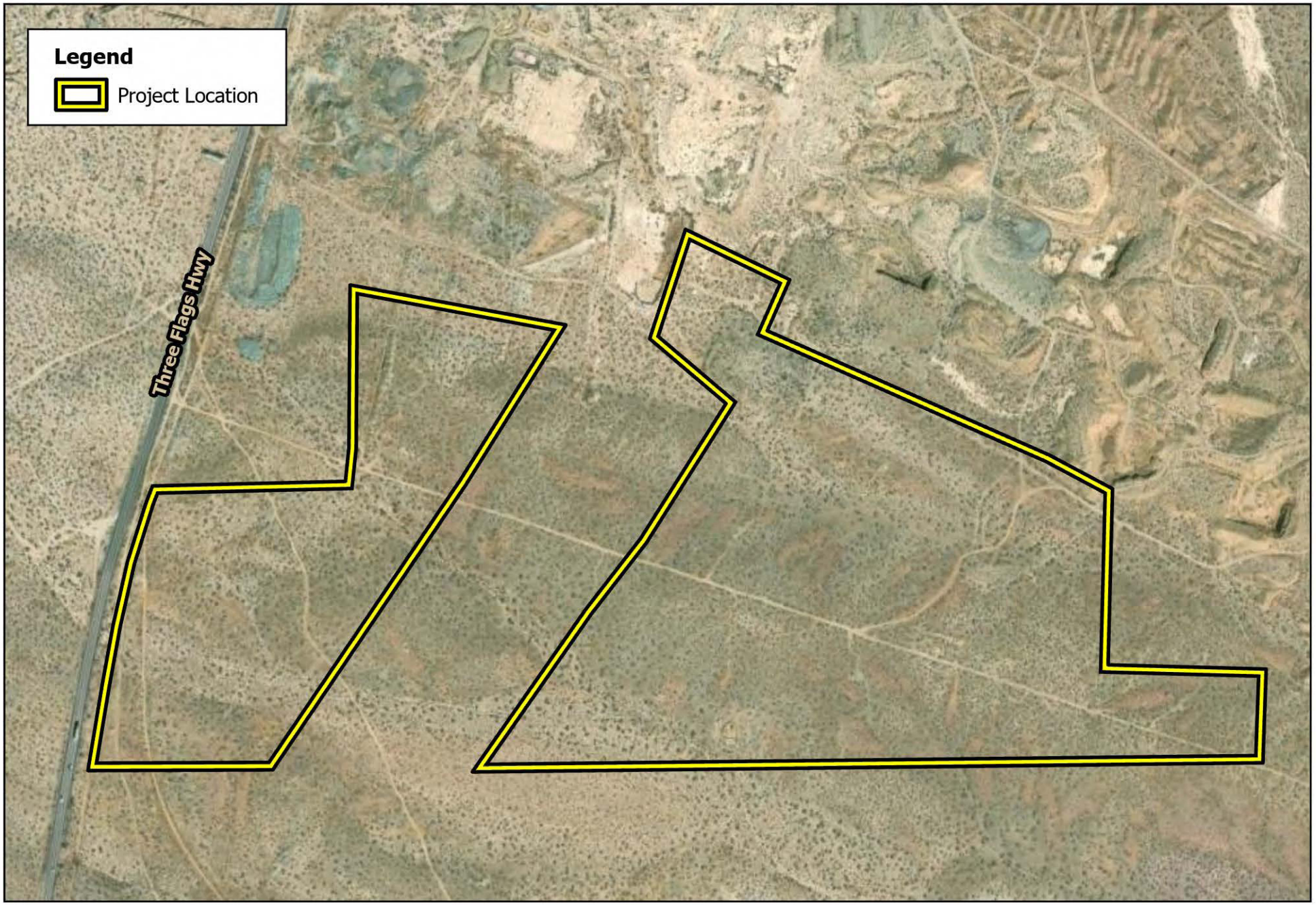
0 1,000 2,000 4,000 US Feet

Source: USGS Topographic Map, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

Site Vicinity

Exhibit 2



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N

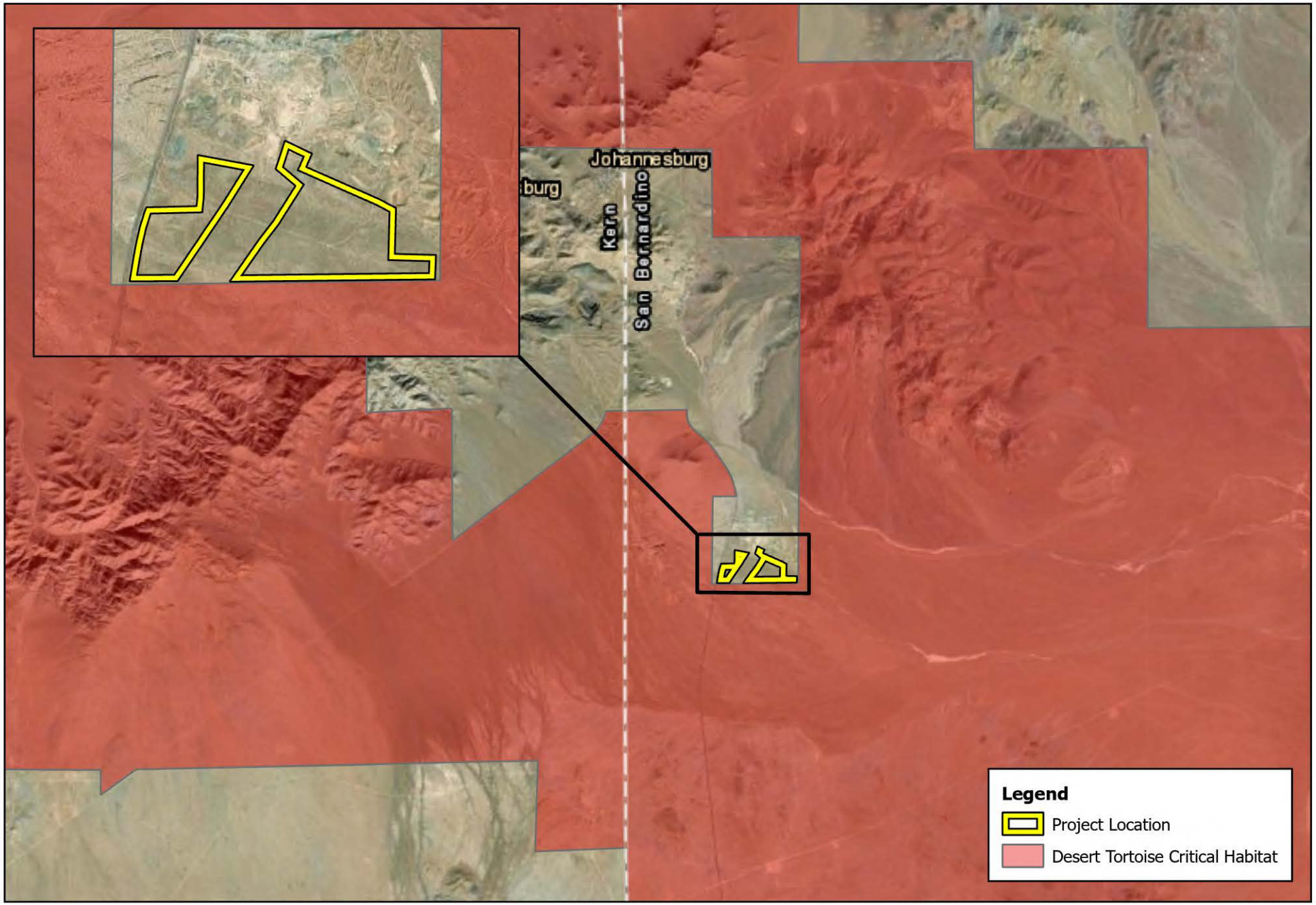
0 450 900 1,800 US Feet

Source: ESRI Aerial Imagery, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

Project Site

Exhibit 3



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N

0 6,637.5 13,275 26,550 US Feet

Source: ESRI Aerial Imagery, County of San Bernardino

GOLD DISCOVERY GROUP'S PERSISTENCE MINE

Critical Habitat

Exhibit 4

Attachment B

Site Photographs

Photograph 1: From the northern boundary of the westernmost site, looking south.

Photograph 2: From the western boundary of the westernmost site, looking east.

Photograph 3: From the southwest corner of the westernmost site, looking north along the western boundary and an unnamed dirt access road.

Photograph 4: From the southwest corner of the westernmost site, looking east along the southern boundary.

Photograph 5: From the southeast corner of the westernmost site, looking north along the eastern boundary.

Photograph 6: From the southeast corner of the westernmost site, looking west along the southern boundary.

Photograph 7: From the northwest corner of the easternmost site, looking east along the northern boundary.

Photograph 8: From the northwest corner of the easternmost site, looking south along the western boundary.

Photograph 9: From the northeast corner of the easternmost site, looking south along the eastern boundary.

Photograph 10: From the northeast corner of the easternmost site, looking west along the northern boundary.

Photograph 11: From the southeast corner of the easternmost site, looking north along the eastern boundary.

Photograph 12: From the southeast corner of the easternmost site, looking west along the southern boundary.

Photograph 13: From the southwest corner of the easternmost site, looking east along the southern boundary.

Photograph 14: Small mammal burrow observed onsite.

Photograph 14: One of the remnant pits from historic mining operations, located in the northeast region of the project site.