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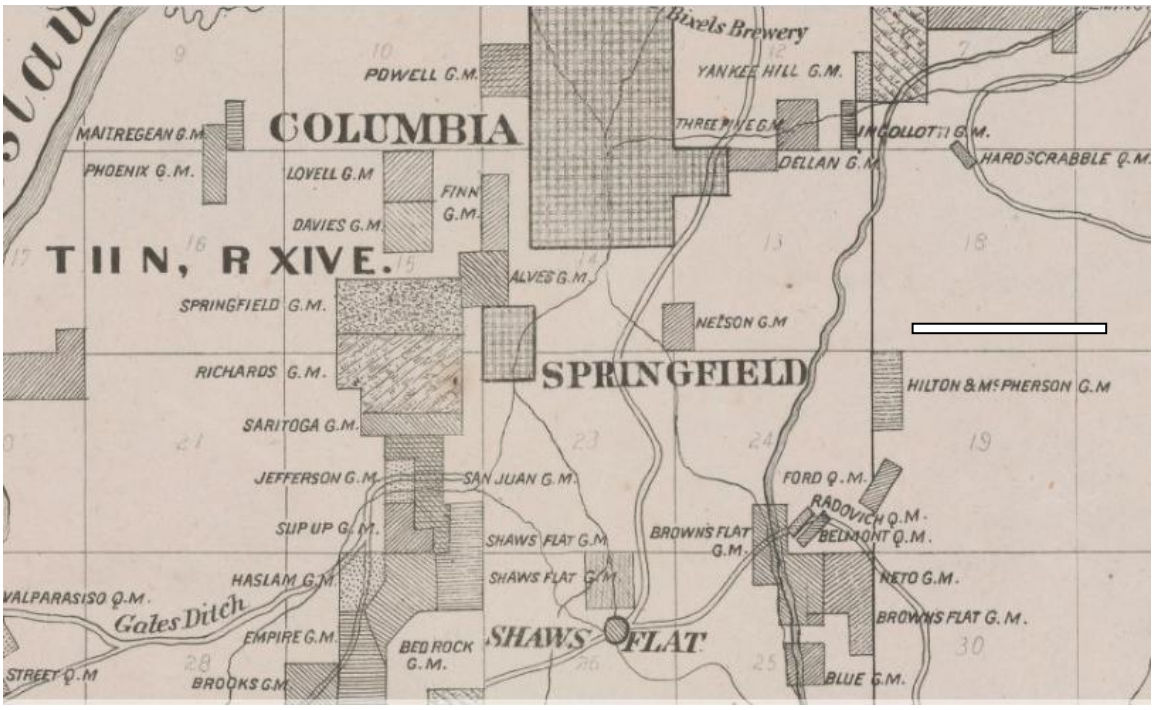
HILTON AND MCPHERSON PLACER MINE

EST 1872



By Diane Morrow, Gold Mine Historian

www.goldmineresearchers.com

DIANE'S HISTORICAL REPORT on

The HILTON AND MCPHERSON GOLD MINE

As a historian when I do a basic mining report I do my best to search both online records and books as well as hard copy books and maps. At least 500 ebooks and e-documents have been searched to create this report.

In addition, I have my own mining library full of mining books, geology books and maps and I have searched many of those as well. I have been collecting for over 16 years and have a wonderful collection including very rare books, documents and maps! I used some of those rare items in this report.

Much of what is contained in this report and most of the pictures are in the public domain and can be utilized by anyone. However, I reserve the right to copyright my formatting, and the text that I have created in order to put this historical report together. I also require all readers to read the DISCLAIMER.

There is still much more research that can and should be done. I may or may not be available to do it, depending on my current work load.

The Goldrush days fascinate me, so it has been enjoyable to work on the Hilton and McPherson Gold Mine Property.

ENJOY! Sincerely,

DIANE MORROW

HILTON AND MCPHERSON GOLD MINE

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Diane's Historical Report on the Hilton and McPherson Gold Mine
(PDF Page Numbers start on Disclaimer)

DISCLAIMER

This historical report is only a basic historical report containing limited historical research on the **Hilton and McPherson Gold Mine** located in Sonora California. There is a lot more research that can be done, including reviewing the Columbia and Tuolumne County archives which was not done for this basic report. No actual geological work has been conducted to create this report.

The basic information contained in this Hilton and McPherson Gold Mine report is **historical, educational and cultural**. By gathering this basic research information together on the Hilton and McPherson Gold Mine a better overall understanding has been achieved. Most of the information contained herein came from third parties which may and may not be reliable. Please note that we make *no assurance* that the information contained herein and the forward-looking statements are free from errors.

> *Diane's **thoughts and opinions are in italics** in the following pages of this report. Diane is not making any legal or technical interpretations, but simply stating her views.* Diane Morrow does not speak for the State of California, the USGS or any other government agency. Her opinions are solely her opinions and should not be relied upon for property investment advice.

The reader understands that Diane Morrow is a self made Historian and Gold Mining Prospector with over 16 years experience, but has no formal education in gold mining. Over the last 16 years Diane was fortunate enough to be mentored by several geologists, and one of the best Mining Engineers in California, Bart Hanford. However, Diane Morrow is not a "Technically Qualified Person" as defined by the California State Mining and Geology Board, and she cannot evaluate geological and mining engineering reports.

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Before investing in any gold mine property the reader needs to understand that gold mining is subject to risks, uncertainties and other factors that may cause actual events to differ materially from any anticipated development. This report does not regard any specific investment objectives, financial situation or the particular needs of any specific person. The contents of this report are not to be construed as legal, business, investment or tax advice. Each recipient should consult with its legal, business, investment and tax advisors as to legal, business, investment and tax advice.

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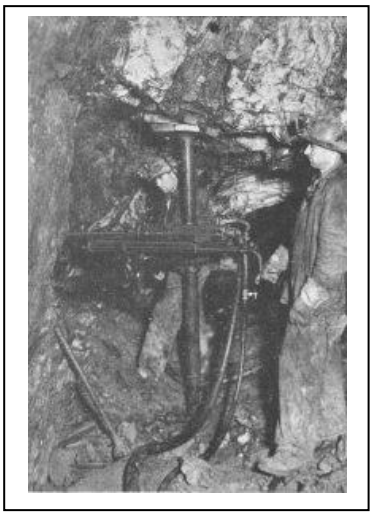
HILTON AND MCPHERSON GOLD MINE

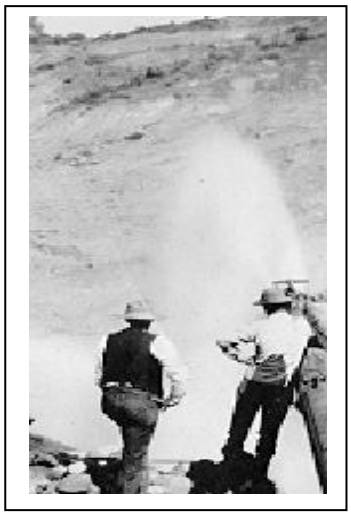
The Hilton and McPherson Gold Mine is a Placer Mine. There are two primary methods of mining for gold: placer mining or lode mining (also known as "hard rock mining"). The process of placer mining is the process that is used to find the gold that has been eroded from the lode. Very generally speaking, placer mining involves sifting through gravel to separate the pieces of gold. Placer mining can be done by a prospector with a gold pan.

The Hilton and McPherson may also contain Lode Gold. The process of lode, or hard rock, mining, on the other hand, is the process by which gold is extracted directly from the lode beneath the ground. Lode mining requires the labour of many miners working together to extract the gold from tunnels or massive open pits in the ground. (Google Definitions)

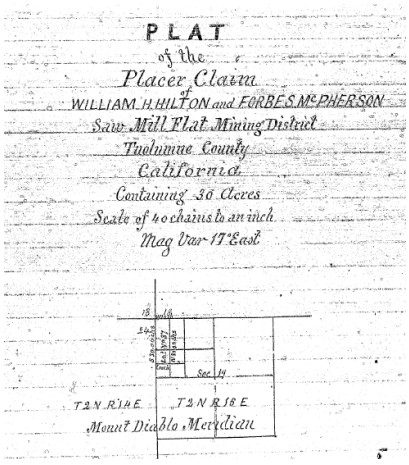
HARD ROCK MINING

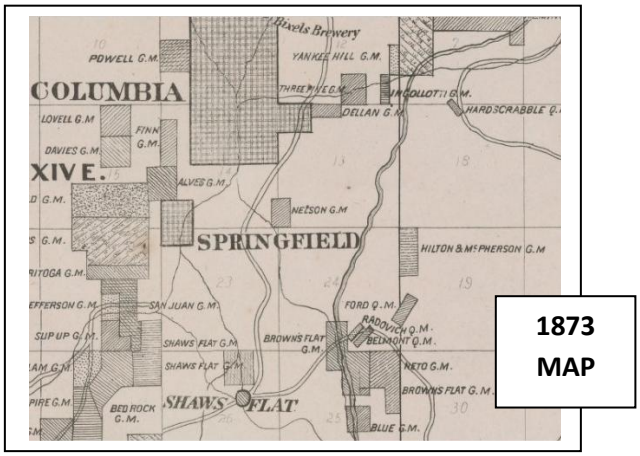


HYDRAULIC PLACER MINING

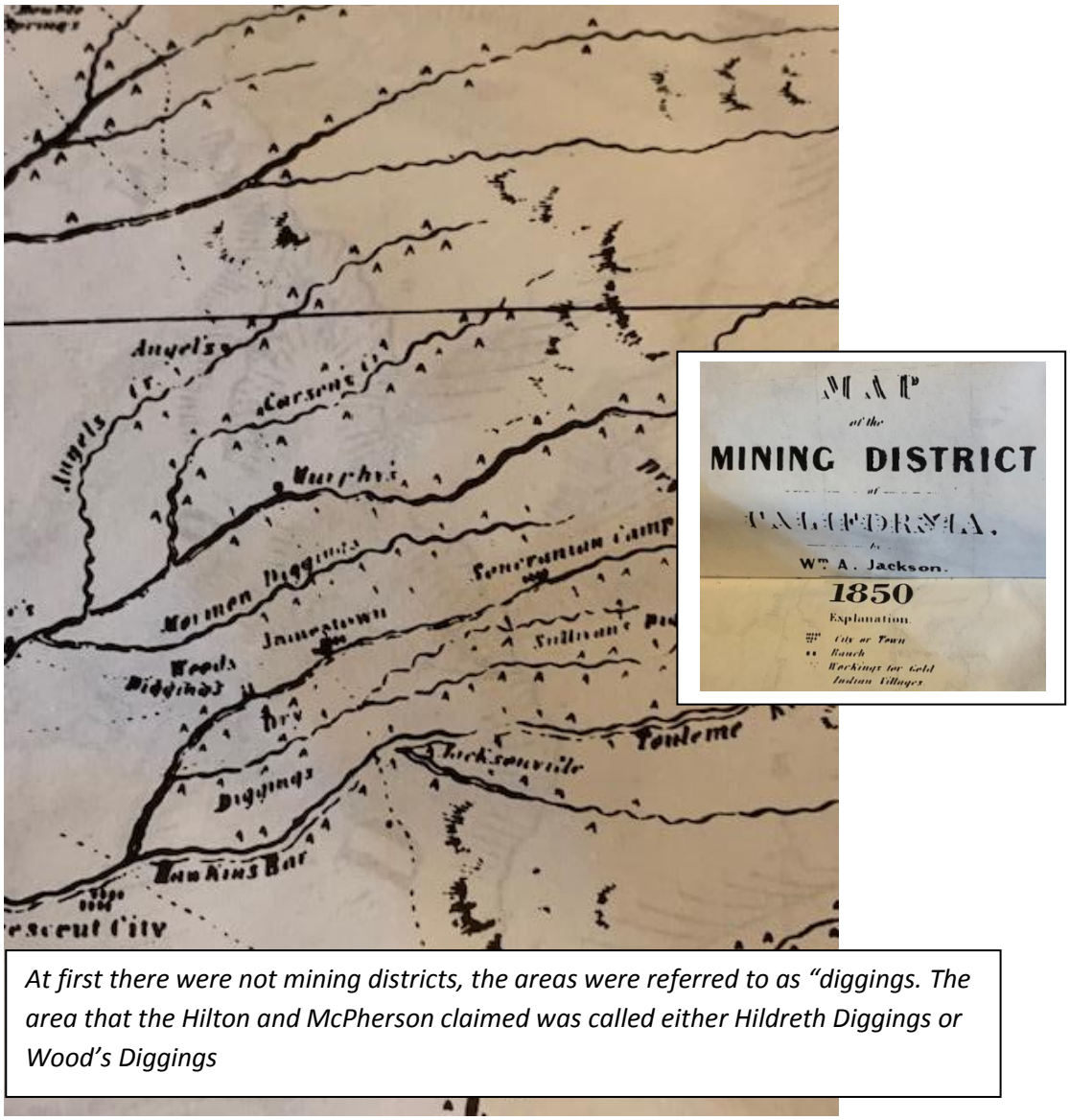


In 1856 *according to the <u>Miner's and Business Men's Directory for Tuolumne County</u> there was a Hilton who was a miner in the Springfield area and a McPherson who was a miner in the Brown's flat area. Hilton and McPherson partnered up in 1872 and developed a placer mining claim in the Bald Mountain mining vicinity and named in the Hilton and McPherson Gold Mine.*





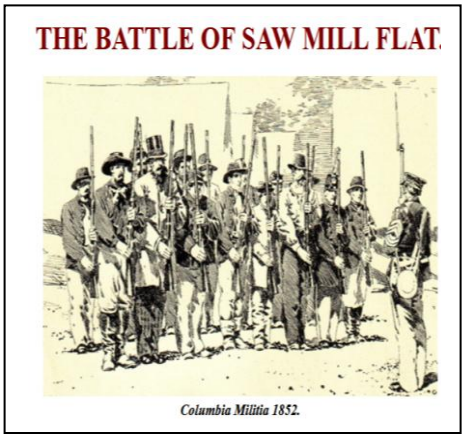
1873 MAP



At first there were not mining districts, the areas were referred to as "diggings. The area that the Hilton and McPherson claimed was called either Hildreth Diggings or Wood's Diggings

In 1851 *No one person shall hold more than 100 sq ft (10ft by 10ft) mining claim.*

(Source 1856 Miner's Business Directory



Columbia Militia 1852.

1852 Apparently tensions were created between the American and Mexican miners, due to a few Mexican bandits killing and robbing miners. By July 1852 rumors had flown that the Mexicans were going to poison a well in the Flat and create other mayhem. Col. Thomas Cazneau headed a group of militiamen with a small cannon and proceeded to the Flat; firing the cannon every 100 yards or so. The action may have created the desired effect, except that the storekeeper in the Flat said he never had any trouble with Mexicans and that the whole affair was a waste of powder.
(Republican, July 14, 1852; Alta, June 6, 1852; SF Herald, June 8, 1853; H. H. Bancroft, California Inter Pocula, 1888) FROM SAW MILL FLAT, JULY 18, 1852.

During the California Gold Rush, miners and prospectors often found themselves in frequent disagreements over land rights. In 1850 the United States had only recently acquired California by the Treaty of Guadalupe Hidalgo and had very little presence in the California territory. After gold was discovered in 1848 the miners formed their own governments in each new mining district adopted the basic Mexican mining laws then existing in California. These mining district laws gave the discoverer right to explore and mine gold and silver on public land. The Sawmill Flat Mining District Laws have been included in the back of this report.

In Columbia which included the Sawmill Flat area where the Hilton and McPherson gold mine is located, a water company was formed by the miners. The miners that wanted water had to put in money and their time to help build the water system. They had to help build the water fume at least two days a week.


A circa 1870s outing at a hydraulic mining operation.
Division of Mines and Geology archives.

122°

Hydraulic Mining was being done all over the area to flush out the placer gold. We know from the Tuolumne Water Company records that where the Hilton and McPherson mine was, had a water wheel and an Iron Monitor being used.

On July 26, 1866, the first effective American mining legislation was passed by Congress. Known as the "Chaffee laws," this legislation basically made what the miners were already doing legal. Named after Colorado territorial representative Jerome Chaffee, the legislation legalized lode (hardrock) mining on public land.

The July 9th, 1870 *USA Placer Gold Law allowed 10 acre claims for $2.50 per acre. They had to work the claim steady for a specific amount of time as degreed by the local mining district laws in order to patent it.*

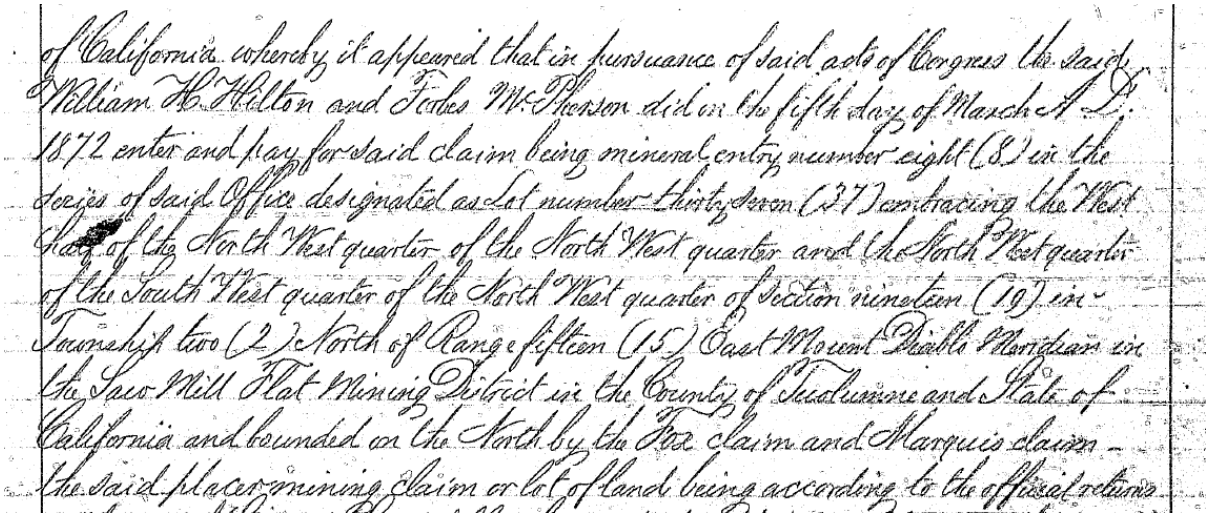
The Chaffee Law of 1869 and the Placer Law of 1871 were then subsequently combined into the General Mining Act of 1872, essentially granting discoverers rights to stake mining claims on federal lands to extract gold, silver, cinnabar, and copper:

> FORTY-SECOND CONGRESS. Sess. II Ch. 152. 1872. 95 approved July ninth, eighteen hundred and seventy) a patent shall issue for the placer-claim, including such vein or lode, upon the payment of five dollars per acre such vein or lode claim, and twenty-five feet of surface on each side thereof. The reminder of the placer-claim, or any placer-claim not embracing any vein or lode claim, shall be paid for at the rate of two dollars and fifty cents per acre, together with all costs of proceedings.

Additionally, the 1872 Act also granted extralateral rights to lode claims and fixed the maximum size of those claims as 1,500 feet long and 600 feet wide or 20 acres in total. One person could not have more than 160 acres. This law also gave the owner of the surface outcrop of a vein the right to follow and mine the vein wherever it led, even if its subsurface extension continued beneath other mining claims. This provision is also known as the Law of the Apex. The Act of 1872 also set the price for land assumed under the mining act of $5 per acre.

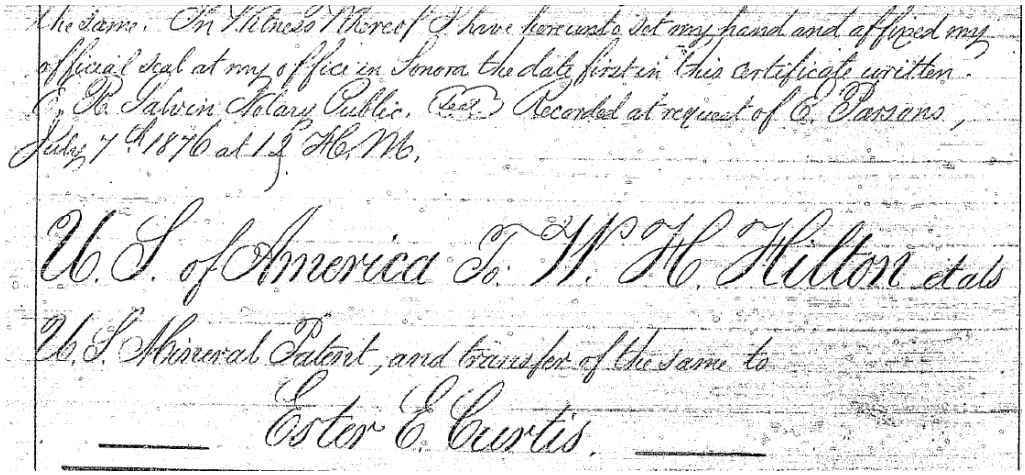
We know the Hilton and McPherson filed their claim and paid for the 30 acres $150.

On March 5th 1872 William H Hilton and Forbes McPherson paid for their 30 acre mining claim, the Hilton and McPherson Gold Mine:



of California whereby it appeared that in pursuance of said acts of Congress the said William H. Hilton and Forbes McPherson did on the fifth day of March A.D. 1872 enter and pay for said claim being mineral entry number eight (8) in the series of said Office designated as Lot number Thirty seven (37) embracing the West half of the North West quarter of the North West quarter and the South West quarter of the South West quarter of the North West quarter of Section nineteen (19) in Township two (2) North of Range fifteen (15) East Mount Diablo Meridian in the Saw Mill Flat Mining District in the County of Tuolumne and State of California and bounded on the North by the Fox claim and Marquis claim - the said placer mining claim or lot of land being according to the official return

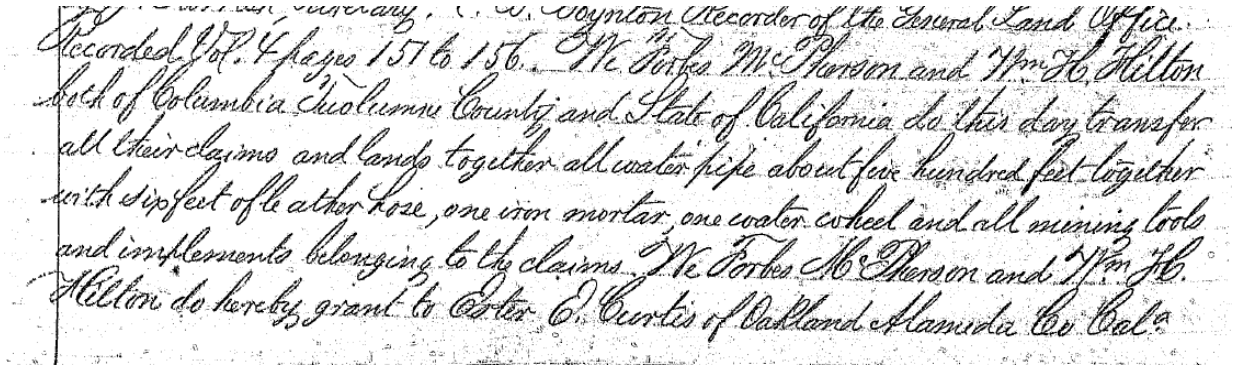
Transfer Agreement entered into May 2, 1876 completed July 1, 1876 when Hilton and McPherson transferred the patented gold mine to ESTER E CURTIS:



the same. In Witness Whereof I have hereunto set my hand and affixed my official Seal at my office in Sonora the date first in this certificate written.
E. P. Galvin Notary Public. Recorded at request of C. Parsons, July 7 A.D. 1876 at 12 M. M.

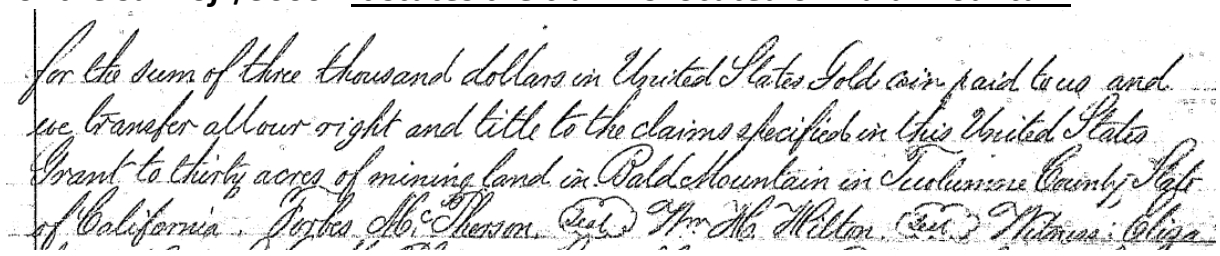
U. S. of America To W. H. Hilton et als
U. S. Mineral Patent, and transfer of the same to
Ester E. Curtis.

The patented mining claim included 500 feet of pipe, several feet of hose, one iron monitor, one water wheel and all the mining tools on the property:



Recorded Vol. 4 pages 155 to 156. We Forbes McPherson and Wm H. Hilton both of Columbia Tuolumne County and State of California do this day transfer all their claims and lands together all water pipe about five hundred feet together with six feet of leather hose, one iron mortar, one water wheel and all mining tools and implements belonging to the claims. We Forbes McPherson and Wm H. Hilton do hereby grant to Ester E. Curtis of Oakland Alameda Co Cal.

For the sum of $3000. <u>It states the claim is located on Bald Mountain</u>:



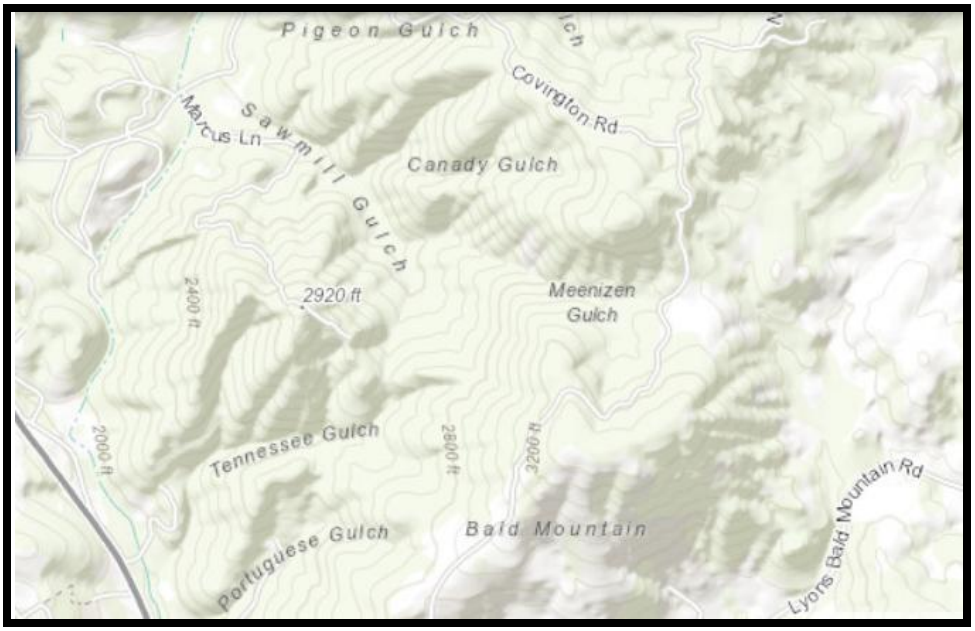
for the sum of three thousand dollars in United States Gold coin paid to us and we transfer all our right and title to the claims specified in this United States Grant to thirty acres of mining land in Bald Mountain in Tuolumne County State of California. Forbes McPherson (Seal) Wm H. Hilton (Seal) Witness: Eliza

Additional research should be done to trace the patent from Ester E Curtis to the successors at the county's recorder's office. There are some archive records in Columbia and in the county archives that need to be researched. In Columbia there are(1873 to 1925) records on the mine that were collected by Tom Conlin who ran the Well's Cargo Office, a store and the telegraph service from 1884 to 1914.

By 1925 *the mine was most likely abandoned. Ms. Holmes wrote in her 1925 book* <u>*The Southern Mines*</u> *that Sawmill Flat road appeared to no longer be in use*:

We started out early one morning to visit the surrounding diggings, or, rather, what remained of them. Leaving Sonora, we took the main road to the north and followed it along the ridge of the hill. The land on both sides of the road had been mined over and over again; boulders and great rocks lie in masses while some mounds are overgrown with grass; just graves of the past, wherein are locked many comedies and tragedies of human life.

The first settlement we came to was Brown's Flat. Here was once a lively camp, but now all we saw was a soft drink and gasoline stand. Down toward the creek were a group of about four shacks, all uninhabited and dilapidated. Beyond Brown's Flat about a mile we came to a sign that read, "Saw Mill Flat Road." However, the road looked as if the travel over it was very light, and the few wagon tracks were practically covered with wild flowers, so we decided to keep on toward Columbia.



HILTON AND MCPHERSON GOLD MINE

At Mindat.org a popular mines and minerals online reference site the following information is provided:

A **placer** Au occurrence located in sec. 19, T2N, R15E, MDM, 0.6 km (1,900 feet) ESE of Sawmill Flat, along Sawmill Gulch.

The claim is 30 acres. MRDS database accuracy for this location is not stated.

Local rocks include Paleozoic marine rocks, undivided, unit 4 (Western Sierra Nevada).
Source: Mindat Information: https://www.mindat.org/loc-97835.html

Mindat's Written References:

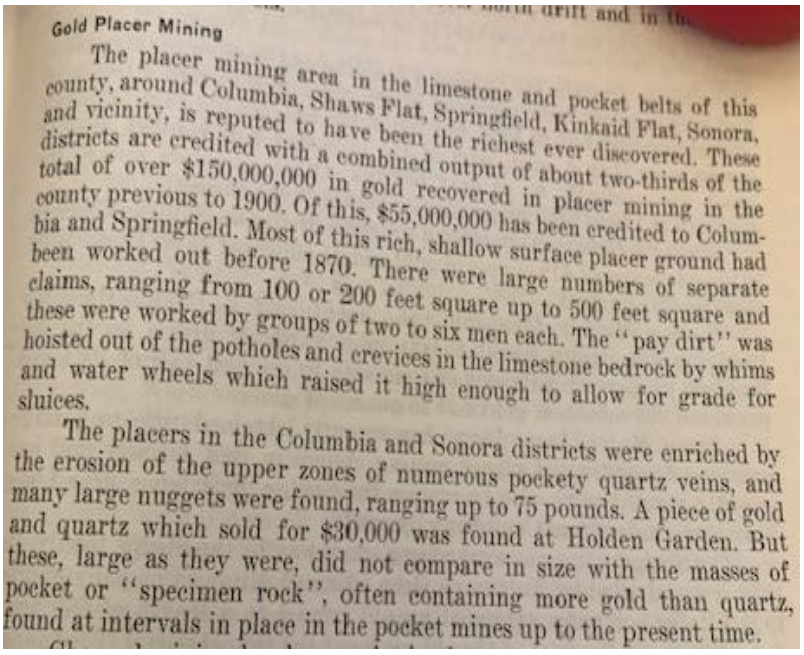
(n.d.) *Minerals Availability System (MAS)*, U.S. Bureau of Mines. file ID #0061090528

(Note: I looked up the number several ways, and I did not find any documents. A written request to the National Archives will need to be done.

Mindat has this book listed under the Hilton and McPherson Gold Mine:

Logan, Clarence August (1949), Mines and mineral resources of Tuolumne County, California: California Journal of Mines and Geology (Report 45): 45(1): Pl. 8.

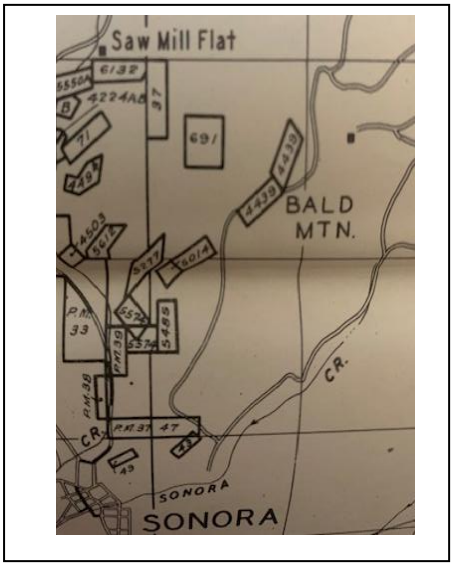
I have the hard copy of the book and there is no mention of the mine however, it is on Plate 8, listed as mine number #37 and this is what the book says about Placer Mines in the area:



Gold Placer Mining

The placer mining area in the limestone and pocket belts of this county, around Columbia, Shaws Flat, Springfield, Kinkaid Flat, Sonora, and vicinity, is reputed to have been the richest ever discovered. These districts are credited with a combined output of about two-thirds of the total of over $150,000,000 in gold recovered in placer mining in the county previous to 1900. Of this, $55,000,000 has been credited to Columbia and Springfield. Most of this rich, shallow surface placer ground had been worked out before 1870. There were large numbers of separate claims, ranging from 100 or 200 feet square up to 500 feet square and these were worked by groups of two to six men each. The "pay dirt" was hoisted out of the potholes and crevices in the limestone bedrock by whims and water wheels which raised it high enough to allow for grade for sluices.

The placers in the Columbia and Sonora districts were enriched by the erosion of the upper zones of numerous pockety quartz veins, and many large nuggets were found, ranging up to 75 pounds. A piece of gold and quartz which sold for $30,000 was found at Holden Garden. But these, large as they were, did not compare in size with the masses of pocket or "specimen rock", often containing more gold than quartz, found at intervals in place in the pocket mines up to the present time.



(2005) *Mineral Resources Data System (MRDS)*, US Geological Survey. *I searched the USGS records system and did not find the record. A letter to USGS to request the records will need to be done.*

HILTON AND MCPHERSON GOLDEN SUMMARY

Readers should not place undue reliance on the following forward-looking information, which will depend on numerous factors, and any reader must make an independent assessment of such projections and hire a "Technically Qualified Person" as defined by the California State Mining and Geology Board, to help them evaluate the geological reports within this report as well as conduct a site visit to evaluate the Hilton and McPherson gold mine property.

A technical report should be obtained by a "technically qualified person" and *include sufficient context and cautionary language to allow a reasonable investor to understand the nature, importance, and limitations of the data, interpretations, and conclusions summarized in the technical repo*rt.

GOLDEN INFORMATION ON THE HILTON AND MCPHERSON GOLD MINE:

- *The State of California would not have put the Hilton and McPherson Gold Mine in the State's Gold Mineral Zone Reserve and rated it MRZ 2b if there was not* ***inferred gold resources of a significant economic value.*** *In the California State Mineral Reserve Zone as a MRZ 2b property therefore the value of the gold is over 2 million, most likely far more.*
- *The property most likely has lode gold of an unknown grade. It is located in the Motherlode gold fields zone. Anyone can see from the geological maps that there are contact zones in the area. In California historically* ***high grade*** *gold mines usually produce as much as $100 million a year in gold.*
- *The property most likely has* ***a lot more placer gold****. With modern machinery placer gold is easier to get. In recent years Tuolumne County has been increasingly gold mining friendly.*
- *The property is located in one of the* ***richest pocket belt area in the world.*** *The property most likely contains some pockets of gold. A 28 pound nugget, a 45 pound nugget and a 75 pound nugget all were within 2 miles of the area.*
- *Surrounding BLM claims can be obtained. Some BLM claims have expired and some existing BLM claims can be purchased for $5k to $20k.*
- *This property may have platinum and other noble metals.*
- *New Scientific methods can help find the gold and newer methods to find gold have not been used. One of the newest technologies being used is Satellite Imagery.* Advancements in satellite imagery have made it easier for *exploration* companies to collect vast amounts of data on potentia*l* gold deposits.

- *Joaquin Murrieta had a hide out on or near the property. Joaquin's hidden gold could be buried on the property, or other buried treasure could be found. One could be super lucky such as the couple walking their dog on their private property in 2013 who found 8 coffee cans containing over 1,427 gold coins worth over $10 million.*
- *Semi-Private Area and great place to build a house and live. There is only one private property land owner uphill pass this property on Marcus Lane. At this time that land owner lives in Idaho a good part of the spring and summer.*

GOLD PROSPECTS

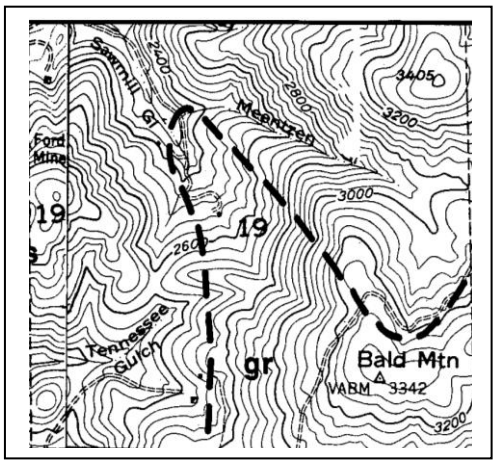
As of the writing of this report, Gold reached its highest price ever on 8/12/24. The higher the price of gold goes, the lower the amount of gold per ton is needed.

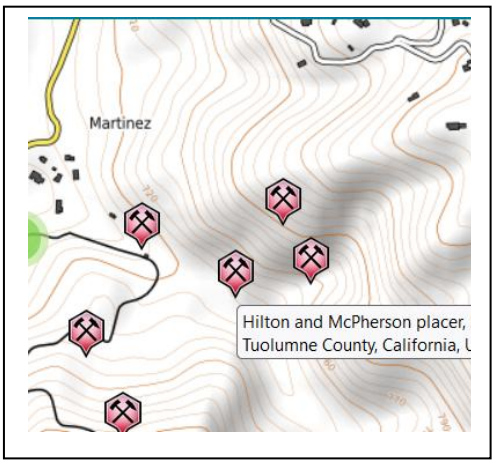
California has produced more than 40 million troy ounces of gold from placers. The source of the great bulk of the gold is numerous quartz veins and mineralized zones of the Mother Lode and related systems in the western Sierra Nevada region. This mining property is next to the main Motherlode and is in the Motherlode gold fields where the gold bearing veins are located. It also has at least one ancient river channel going through the property.

Typically, hard rock lode miners like to see at least 1/3 of an ounce per ton with gold at $2000. If gold is only at $1800 per ounce then a half ounce per ton would be the desired target. If its placer gold then only a 10^{th} of an ounce per ton may be profitable depending on the cost to dig up and process. With current scientific methods, XRF assaying, core drilling, GPR, Satellite pulsing and so much more could be done to help figure out where the gold is.

More likely than not, there is still a good amount of placer gold at the Hilton and McPherson Mine. More likely than not, there is also a lot of lode gold at the Hilton and McPherson Mine.

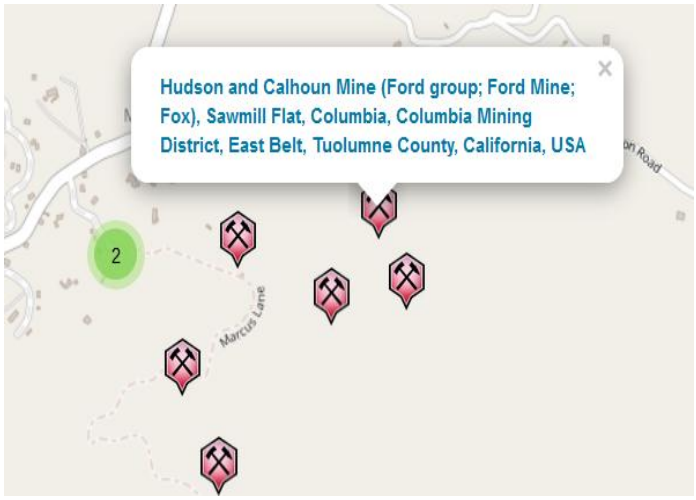
Besides being a historian for the Motherlode Gold Mines, I have been a gold prospector for over 16 years. In my opinion there is most likely a lot of gold on this property. The area that peaks my interest most is the area of this map (excerpt taken from the DMG OFR 86-12) where the dotted line is. The Hilton and McPherson side of that dotted line may be a ***contact zone*** *where the geology changes, which is usually very good for gold.*





Because of the numerous lode gold mines right by this property, and the MRZ 2b rating, there is bound to be significant gold on this property. The Hudson and Calhoun plus the Ford Gold Mine are the most notable mines and they were good gold producers.

The USGS states the geological nature of the area is characterized by mica schist, a type of metamorphic rock. One can see the evidence of the ancient river bed by seeing where the rounded river rock is.



BE EXTRA CAREFUL MINING IS DANGEROUS

First and foremost, don't ever go into an abandoned mine because there could be poisonous gas that could kill you ***instantly****. Most injuries in underground mines involved falling rock, slips, and explosions, and that is why we have so many safety regulations. Inhaling dust, and fumes from machinery must also be avoided.*

There are mining consultants that can help set up an underground mine safely. MSHA is the branch of the federal government that regulates mines, it is under the department of labor and ***designed to protect employees*** *not mine owners mining on their own private land.*

A LITTLE BIT ABOUT GOLD FROM 1986 MINERAL ZONE REPORT:

OVERVIEW OF GOLD

The unique physical and chemical properties of gold have fascinated mankind since ancient times. Historically treasured for its ornamental qualities and storehouse value, gold has in modern time taken on new importance in technological applications. Thin gold coatings on spacesuits, helmets, and visors now protect astronauts in space against high radiation. A similar application prevents window glare and reduces energy use in high rise office buildings. The electronics industry uses many tons of gold annually in the circuitry of computers, calculators, telephones, televisions, and a host of other electronic devices now common to our society. Also, numerous applications have been found for gold in surgery, therapy, and treatment in medicine. Dentistry is well known for its use of gold

Gold has been essentially a free market commodity since 1968 when major industrial nations agreed to refrain from further governmental acquisition of newly mined gold. Furthermore, trading and marketing of gold in the U.S. has grown rapidly since the ban on private speculation and investment was eliminated in 1975. Demand for gold for speculative or investment purposes has increased during periods of high inflation. On the other hand, demand for fabricated gold (industrial, dental, jewelry purposes) has decreased when high demand for gold for investment has driven prices up. This was best illustrated in 1980, when the price of gold reached 850 dollars per ounce.

Annual consumption of fabricated gold in the U.S. is expected to increase from 3.2 million troy ounces in 1980 to 8.5 million troy ounces in the year 2000 (Butterman, 1978; U.S. Bureau of Mines, 1981). Domestic production is expected to supply only about 28 percent of the demand (Butterman, 1978). Demand for gold for investment or speculation is not estimated since projections for these uses are difficult to make within reasonable limits.

Mining, Processing, and Marketing

Historic mining activity in the Bald Mountain/Browns Flat district and current mining activity in similar environments elsewhere in the Sierra Nevada demonstrate the minability and processability of lode and placer gold deposits present here. Also, a strong market for gold continues to exist. Normally, gold ore extracted from a lode or placer deposit would be processed on or near the mine site and the concentrate shipped to a refinery for treatment to yield high purity gold. Following refinement,the commodity would be suitable for use in both

traditional and newly developed industrial applications. Specimen grade crystalline gold, which can be expected to be encountered in the mines of this district, is more valuable in its unprocessed state.

Source: OFR-Report 86-12

RECOMMENDATIONS

1. *Hiring a local Mining Engineer or Licensed CA Geologist to do a site visit and some assays as well as review this report and give you their opinion of the mining property. Diane Morrow can put you in contact with some qualified professionals.*
2. *Have Diane do additional historical research on the property. The historical research can be very valuable to future mining. I know there is additional information that I can find that would be helpful to have.*

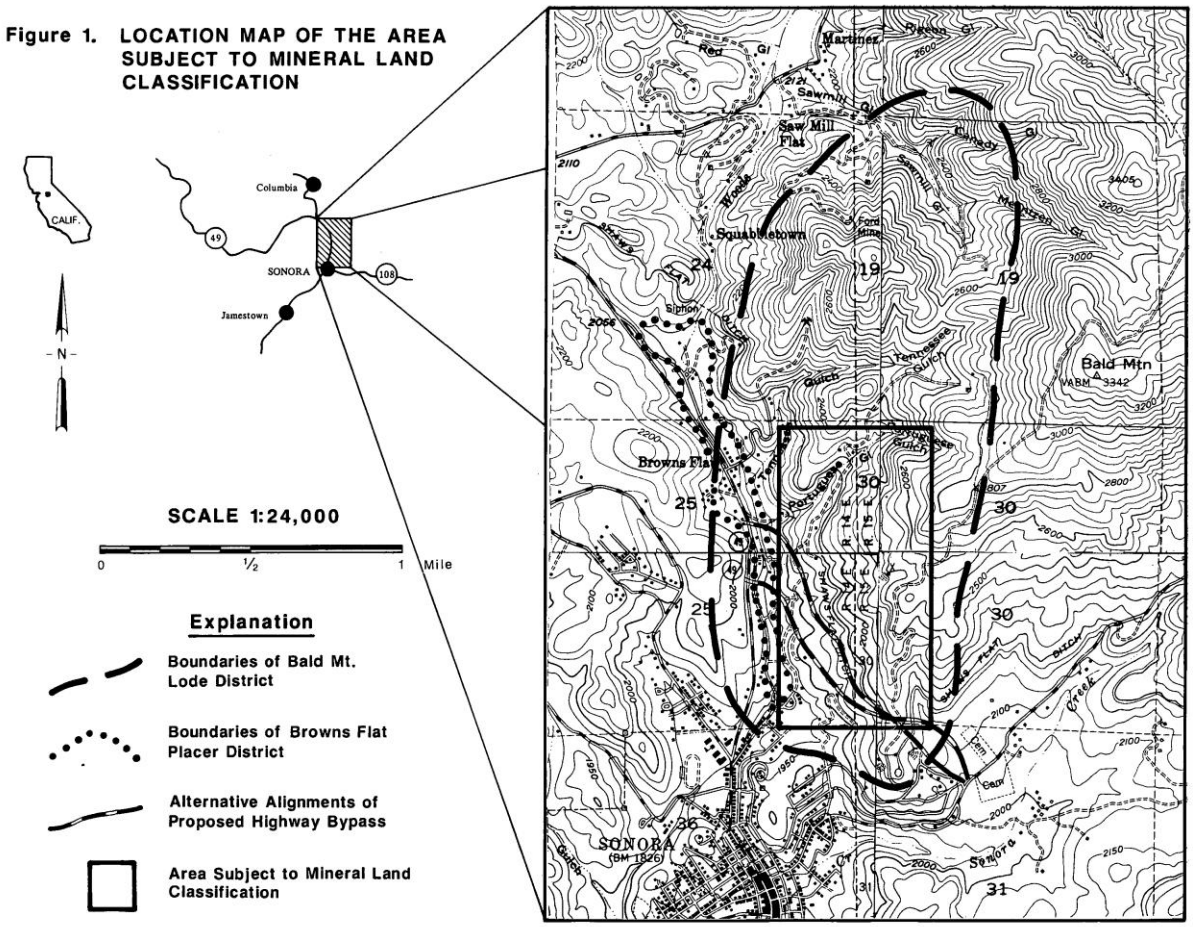
WATCH THESE YOUTUBE VIDEOS ON GOLD:

The History Channel's How the Earth Was Made (and Gold)
https://www.youtube.com/watch?v=R9aW9caCTSA

GOLD: The Story of Man's 6000 Year Obsession
https://www.youtube.com/watch?v=_6ACWxkTM_Q

Hilton and McPherson's MRZ 2b Gold Reserve Rating

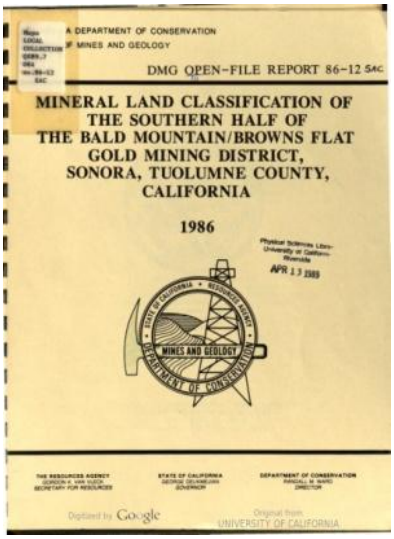
MRZ = Mineral Reserve Zone



The dotted line is the MRZ 2b area with the Hilton and McPherson being in the upper left portion of section 19, the Rectangle is the MRZ 2a area. The Hilton and McPherson 30 acre Gold Mine property is located in the MRZ 2b Tuolumne County CA Gold Reserve. To be considered ***economically "significant"*** *is a rare occurrence. In order to classify the MRZ 2b property as* ***significant****, a mineral deposit must meet marketability and threshold value criteria adopted by the California Mining and Geology Board 1983.*

Gold in 1987 averaged $380 / $500,000 = 1315 ounces @ 1315 ounces of gold at $2300 (conservative amount) = $3,024,500 Therefore, the State of California is saying there is at least 3 million in gold on the Hilton and McPherson Gold Mine Property. However, more likely than not, there is much more gold than that. By the way, you don't have to count gold as income until you cash it in.

In 1987 the State Geologist did a report on the area at the request of a few mine owners, because Tuolumne County wanted to put a bi-pass through their property. The State Geologist concluded that the bi-pass should be most likely be placed elsewhere due to the valuable gold still available in the area:



OFR 86-12

SUMMARY

In response to a petition submitted under provisions of the Surface Mining and Reclamation Act of 1975, the State Geologist has classified approximately 320 acres of land containing lode and placer gold deposits located adjacent to the City of Sonora, Tuolumne County. The property covers the southern half of the Bald Mountain lode and the southern tip of the Browns Flat placer gold mining districts.

Data provided by the petitioners, information published in journals of the Division of Mines and Geology and U.S. Bureau of Mines, and limited field evaluation, indicate that sufficient inferred resources of gold exists within the property to qualify it for assignment to the MRZ-2b mineral land classification category. The MRZ-2b category is applied to areas where geologic evidence indicates there is a high likelihood that economic concentrations of minerals are present.

This report was prepared in response to a petition for mineral land calssification received on October 3, 1985 by the State Mining and Geology Board. The petition was submitted by Condor Minerals Management Inc. on behalf of Ms. G. Rannie, Mr. J. Brennan, and Mr. W. Pedro of Sonora, California who requested that approximately 320 acres of land located on the northeast side of the City of Sonora (Figure 1) be classified under provisions of the Surface Mining and Reclamation Act of 1975 (SMARA). Their concern is that a proposed highway bypass project referred to as the "Greenley Road extension" would result in permanent loss of access to lode and placer gold resources contained within the petitioned area. The State Mining and Geology Board accepted the petition on March 18, 1986 and directed the State Geologist to classify the area relative to lode and placer gold resources.

The approximately 320 acres of land subject to mineral land classification are located in the W1/2 W1/2, section 30, T.2N., R.15E., and the E 1/2, E 1/2, section 25, T.2N., R.14E., Mount Diablo Base and Meridian. The area occupies parts of the Sonora, Columbia, Standard, and Columbia SE U.S. Geological Survey 7 1/2-minute quadrangles.

Threshold Value

The lode gold mines in the Bald Mountain district are referred to as pocket mines, characterized by small, discontinuous, but often very rich ore pockets localized along intersections of northerly-trending graphitic schist layers and easterly-trending porphyry dikes. At the northern margin of the area lies the Sugarman mine whose workings extend down more than 600 feet on the incline with a reported $700,000 production record mainly at $20 per troy ounce gold value (Logan, 1949). To the south of the petitioned property lies the Bonanza mine, which according to U.S Bureau of Mines Bulletin 424 (1940, p. 61) is probably the most famous pocket mine in the United States. It extends down 2700 feet on the incline, bottoming out in apparently unmineralized granodiorite. Total production from the Bonanza is reported to be more than 1.5 million dollars, again much of which was valued at $20 per troy ounce gold price (Logan, 1928). Between the two mines within the petition area are at least seven once productive mines whose working depths are thought not to exceed 200 feet. Based upon the depth of ore in the adjacent mines and the continuity of the ore forming system, it is inferred that gold resources likely remain at minable depth that far exceed the minimum threshold value of 500,000 1978 equivalent dollars.

MINERAL LAND CLASSIFICATION

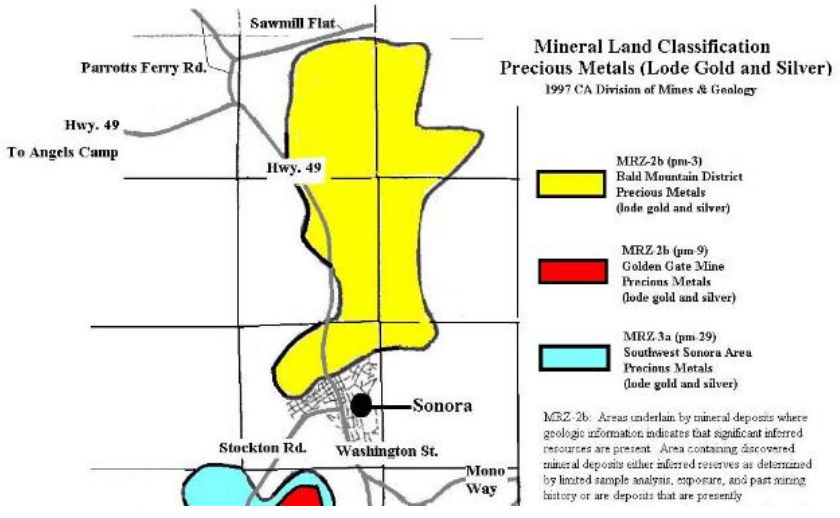
Pursuant to mandate of the Surface Mining and Reclamation Act of 1975 and in accordance with guidelines set forth by the State Mining and Geology Board, the property evaluated in this study is classified MRZ-2b (areas where geologic information indicates that significant inferred gold resources are present). The assignment of MRZ-2b is based on: 1) the continuity of the ore forming system through the area; 2) past production of gold within and adjacent to the area; and 3) the high likelihood that gold ore persists to greater depths than previously mined.

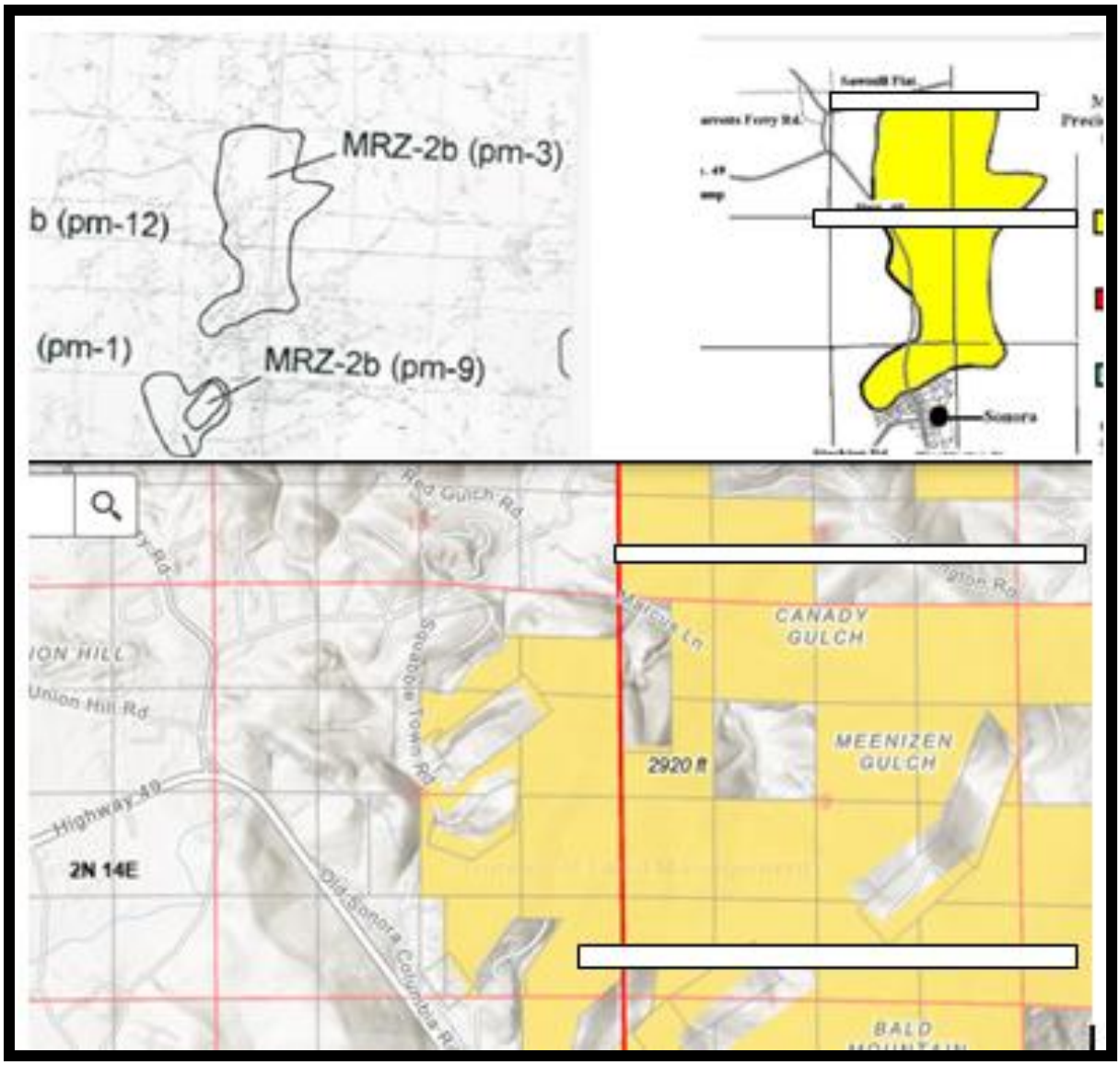
Pursuant to the Surface Mining and Reclamation Act of 1975, the State Mining and Geology Board will transmit this docuement to the County of Tuolumne and the City of Sonora, who are the appropriate lead agencies. Those agencies are then to incorporate the information into their general plans and formulate mineral management policies concerning the classified area within a 12 month period. This is to ensure that the significance of lode and placer gold deposits contained in this area is recognized and considered before land use decisions are made which could preclude mining these resources.

As set forth in section 2761(b) of the Surface Mining and Reclamation Act of 1975, the State Geologist shall classify land solely on the basis of geologic factors and without regard to existing land use. Lands are classified into four Mineral Resource Zones (MRZ's) depending on the state of knowledge concerning the presence or absence of mineral deposits (see page 3). The State Mining and Geology Board has established marketability and minimum threshold value criteria (SMGB, 1983, p. 25 and 26) for use as guidelines to establish the significance of mineral deposits for purposes of classification.

For a gold deposit, or a group of related gold deposits, to be considered significant for the purposes of classification, two criteria must be satisfied: 1) it must be demonstrated that the deposit(s) is judged to be minable, processable, and marketable under present technologic and economic conditions or which can be estimated to exist in the foreseeable future (50-year period) and (2) a high likelihood must exist that the threshold value of the first marketable product(s) equals or exceeds $500,000 measured in 1978 equivalent dollars. Under the petition process, the petitioner is responsible for supplying the basic data that is needed to consider the significance of the mineral deposit.

Figure 18: Areas of State-Designated Significant Mineral Resources





LOCATIONS OF MINERAL PROPERTIES
TUOLUMNE COUNTY, CALIFORNIA

By

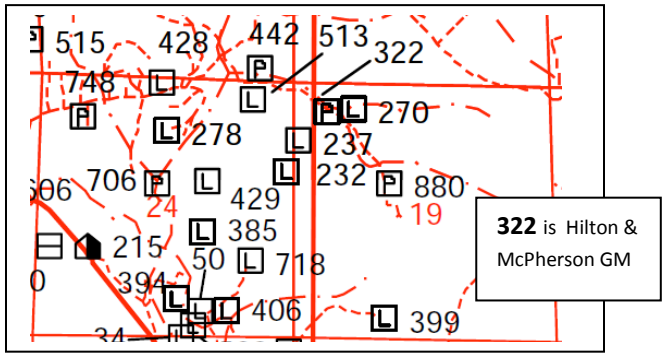
Chris T. Higgins

With Assistance on Digital Processing from
GIS Students and Staff, Columbia College, Columbia, California

and

Staff, Tuolumne County Planning Department

1997

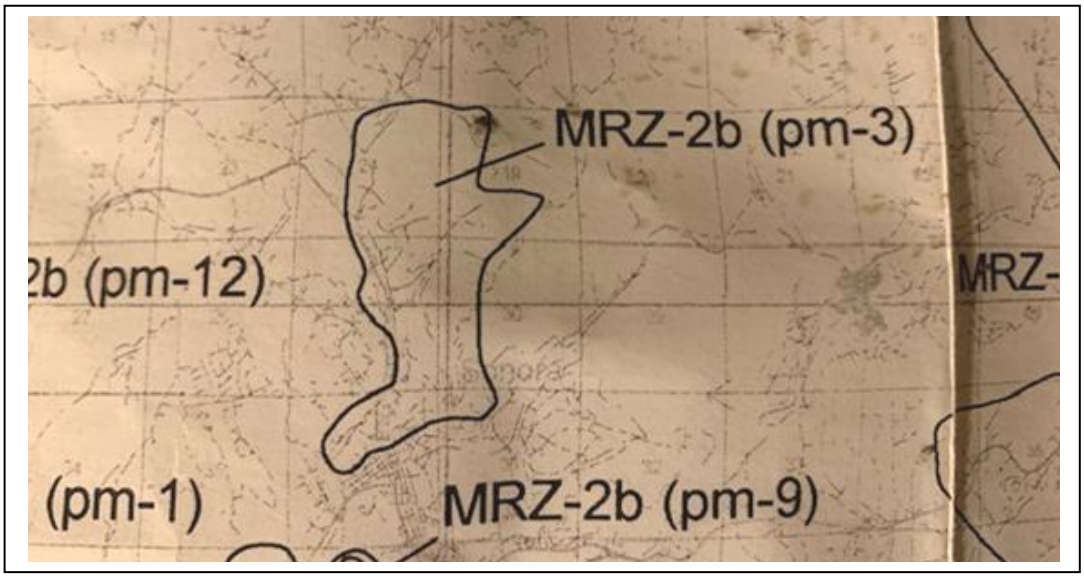


322 is Hilton & McPherson GM

STATE OF CALIFORNIA MRZ OFR –97-09

Mineral Land Classification of a Portion of Tuolumne County, California, for Precious Metals, Carbonate Rock, and Concrete-Grade Aggregate. 1997

MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered mineral deposits that are either inferred reserves as determined by limited sample analysis, exposure, and past mining history or are deposits that presently are sub-economic. Further exploration and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a.



Below is an excerpt from the 1997 California Department of Conservation, Division of Mines and Geology Report by Chris T. Higgins, Geologist California Division of Mines and Geology; which placed the entire Rosewood property into the Precious Mineral Reserve:

322	HILTON AND MCPHERSON	W2NWNW,SEC19,T02N,R15E,MDBM	500M	COLUMBIA SE 7.5	GOLD (PLACER)	DMG CJMG 45b

MRZ-2b (pm-3)	Bald Mountain District	Precious Metals (lode gold and silver)	The Bald Mountain District, as defined here, extends from the northern edge of Sonora northward for a few miles to Sawmill Flat. Part of it was previously classified MRZ-2b by Loyd (1986), who studied the potential for both lode and placer gold there. The district is famous for its rich deposits of pocket gold, some of which is important for its value as specimens. The gold is found in a complex of quartz veins and veinlets, which mainly cut metasedimentary rock of the Calaveras Complex; typical of this region, the quartz veins are associated with dikes. The complex of veins appears to have two dominant structural attitudes: one set strikes northeast and dips northwest, commonly at shallow angles, while the other strikes north-south and dips steeply east or west. The complex appears to be restricted to this area as there is no known continuity to the surrounding region. Mineralization is distinct from other parts of the county in that gold is present mainly in the free state and in tellurides; sulfides are not as prominent as elsewhere in the county. Also of note is that this mineralization is generally concentrated as "pockets" in small veinlets and fissures cutting the larger veins, and is thus likely late stage in the hydrothermal activity of the area. It is probable that much of the enormously rich placer-gold deposits of the adjacent Columbia area were ultimately derived from the complex of veins of the Bald Mountain District. The district has had numerous producing mines, the most important of which were the Sugarman-Nigger, Hope, Ford, Lazar, and Bonanza, the most famous pocket mine in the world. Cumulative production of the district is estimated to be at least $3-4 million dollars. The Bonanza and Sugarman-Nigger have the most extensive underground workings in the area, with the Bonanza reported to have reached 2,700 feet deep on a shallow incline (Julihn and Horton, 1940). Most other mines were operated on a small scale; consequently, there are still many parts of the complex that have not been exploited. For this reason, as well as the exceptional historic production from this small area, the Bald Mountain District is classified MRZ-2b.

CRITERIA USED IN MINERAL LAND CLASSIFICATION

"To be considered significant for the purpose of Mineral Land Classification, a mineral deposit, or group of mineral deposits that can be mined as a unit, must meet marketability and threshold value criteria adopted by the California State Mining and Geology Board (1983). The criteria vary for different minerals depending on:

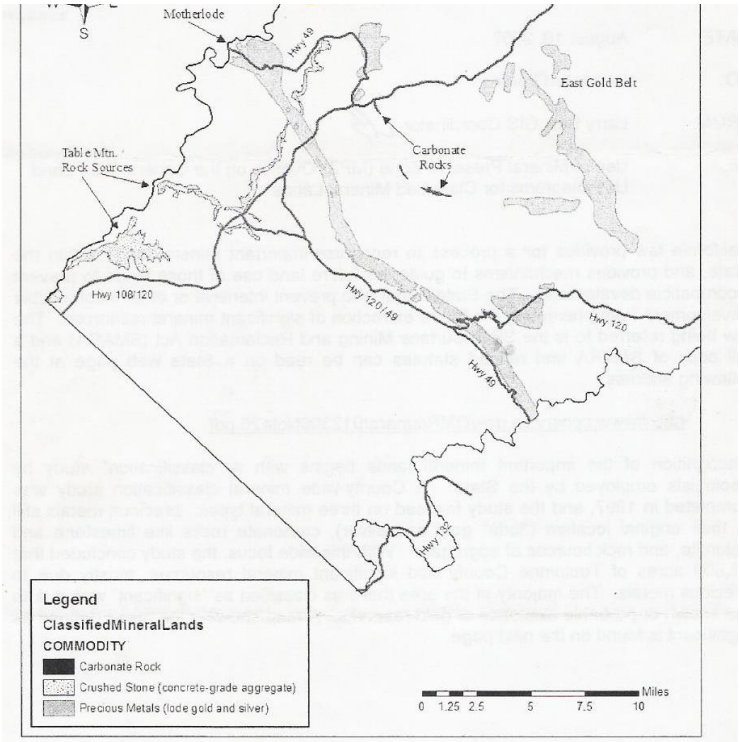
(1) whether they are strategic or non-strategic minerals,
(2) their uniqueness or rarity,
(3) their commodity-type category (metallic minerals, industrial minerals, or construction minerals)."

Figure 17: California Mineral Land Classification Diagram

Identified Areas of Mineral Resource Significance			Undetermined Areas of Mineral Resource Significance		Unknown Areas of Mineral Resource Significance
	Demonstrated, Measured and/or Indicated	Inferred			
Economic	**MRZ-2a** Reserves	**MRZ-2b** Inferred Resources	**MRZ-3a** Known	**MRZ-3b** Inferred	**MRZ-4** No Known
Marginally Economic	**MRZ-2a** Marginal Reserves	**MRZ-2b** Inferred Marginal Reserves	Mineral Occurrence	Mineral Occurrence	Mineral Occurrence
Sub-Economic	**MRZ-2a** Demonstrated Subeconomic Resources	**MRZ-2b** Inferred Subeconomic Resources			
Non-Economic	**MRZ-1** Areas of No Mineral Significance				

These incredibly rich deposits occurred in a unique geologic and geographical combination:

> It was during the Cretaceous period following the Jurassic that the erosion first took place, which laid bare the upper parts of the gold-bearing quartz veins of the Pocket Belt. The episode of erosion resulted in releasing, removing, depositing, and concentrating the gold from the veins into the placer deposits of unbelievable richness.
>
> These events continued into the Eocene epoch of the Tertiary period, and then the Miocene and Pliocene epochs in which basic volcanic activity also took place. During this volcanic activity, the uplifting and faulting contributed to the production of the deposits, as well as the formation of the latite cap known today as Table Mountain (Jenkins 1948:24-27). It appears that the erosion of the Pocket Belt was responsible for the pre-eminence of the northwestern region of Tuolumne County as a placer gold producer.



The map above shows the areas classified by the State as having "significant mineral resources." Most of the classified areas have been subject to gold mining in the past, dominated by the Mother Lode and the "East Belt" mines, and are shown in grey. The crushed stone sources of the Table Mountain basalt are identified in the dotted pattern. The carbonate (limestone, dolomite) resources are in black, and are found north of Columbia and south of Sonora.

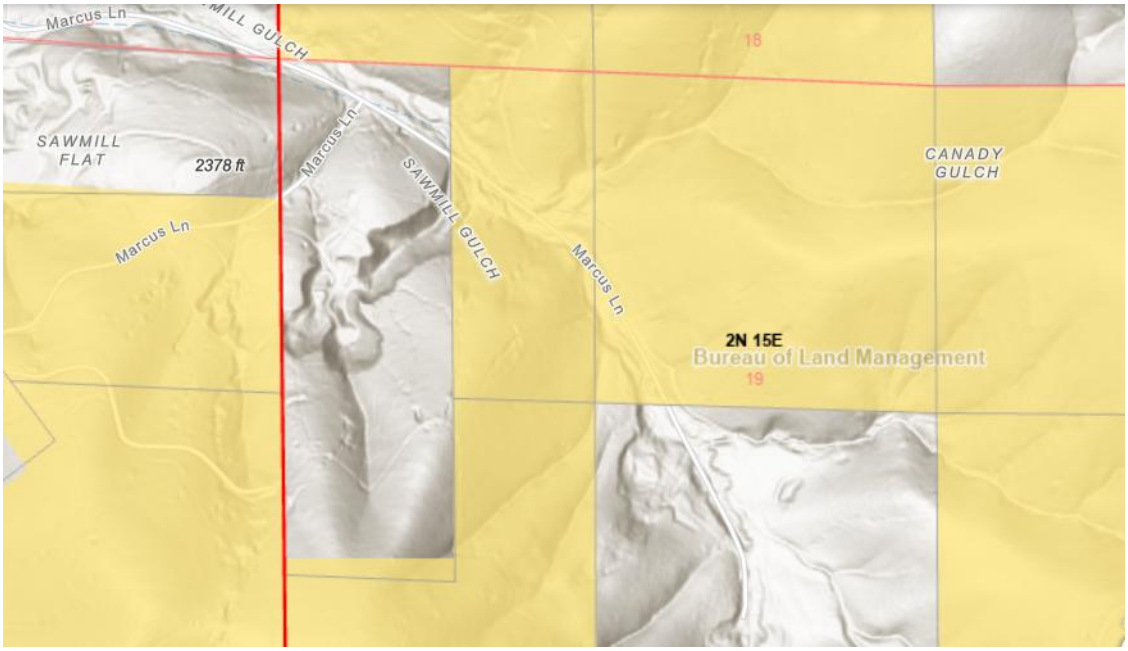
MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered mineral deposits that are either inferred reserves as determined by limited sample analysis, exposure, and past mining history or are deposits that presently ar sub-economic. Further exploration and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a.

MRZ-3a: Areas containing known mineral occurrences of undetermined mineral resource significance. Further exploration within these areas could result in the reclassification of specific localities into MRZ-2a or MRZ-2b categories. As shown on the California Miner Land Classification Diagram, MRZ-3 is divided on the basis of knowledge of economic characteristics of the resources.

MRZ-3b: Areas containing inferred mineral occurrences of undetermined mineral resource significance. Land classified MRZ-3b represents areas in geologic settings that appear to be favorable environment for the occurrence of specific mineral deposits. Further explorati could result in the reclassification of all or part of these areas into the MRZ-3a category or specific localities into MRZ-2a or MRZ-2b categories.

MRZ-4: Areas of no known mineral occurrences where geologic informatio does not rule out either the presence or absence of significant mineral resources.

The distinction between the MRZ-1 and MRZ-4 categories is important for l-use considerations. **It must be emphasized that MRZ-4 classification does no ly that there is little likelihood for the presence of mineral resources, but er there is a lack of knowledge regarding mineral occurrence**. Further oration could well result in the reclassification of land in MRZ-4 areas to MRZ-3 or Z-2 categories.



PARCEL QUEST LISTS THE LEGAL DESCRIPTION AS:

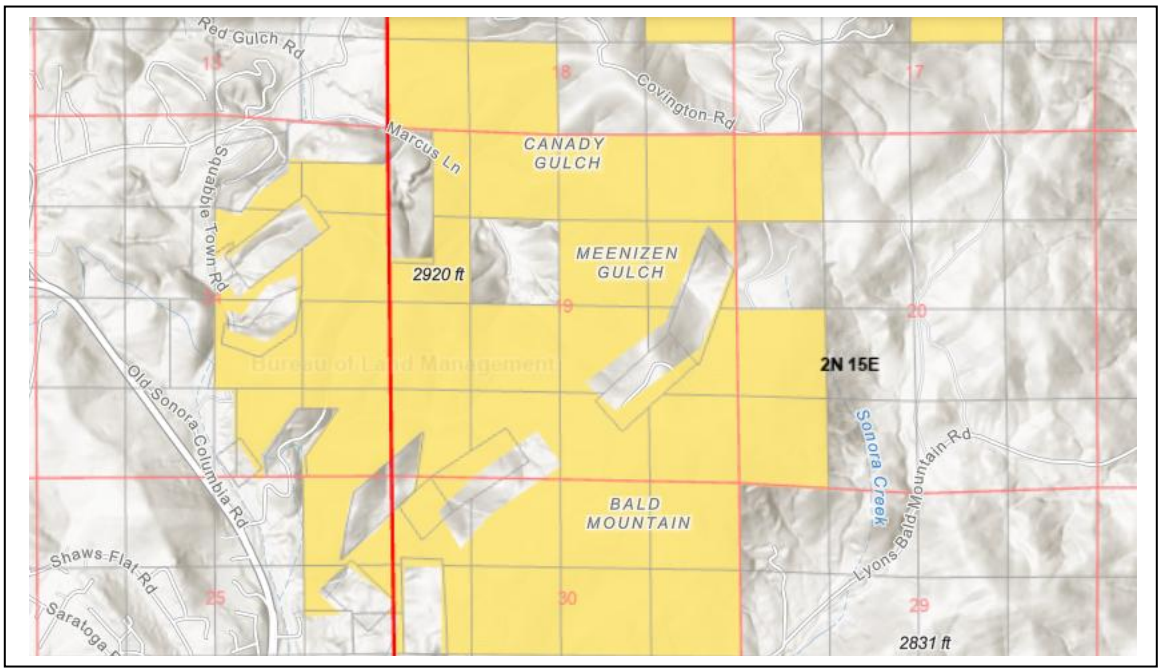
POR NW 1/4/ Section 19, Township 2 RI South East 30 acres (Top left quarter of section 19)

Property Location

Address:	21901 MARCUS LN	**City:**	SONORA
APN#:	085-010-01-5000	**Use Code:**	Single Family Residence
Tract:	BIG HILL -MILL	**Census Tract:**	12.00
Map Page/Grid:	/	**Legal Desc:**	POR NW1/4 SEC 19 T2N R15E 30 AC
Total Assessed Value:	173,912	**Tax Amount:**	1,877.40
Percent Improvement:	0.02	**Tax Year / Assessor Year:**	2023 / 2023

Current Owner Information

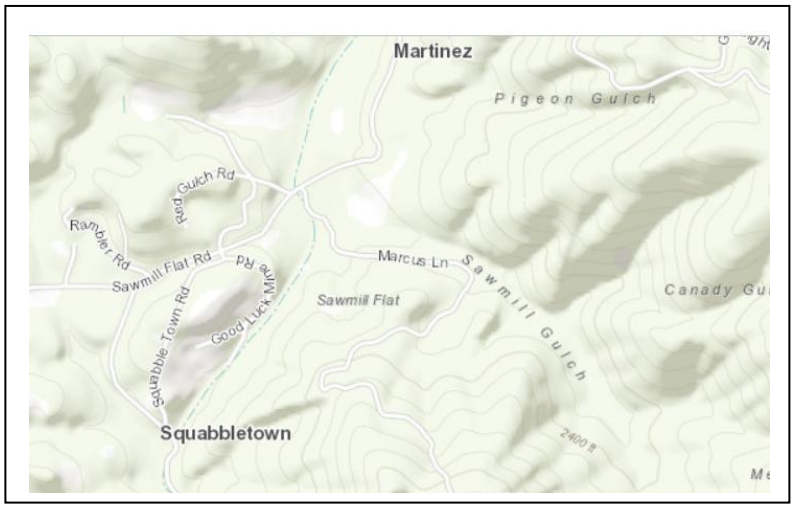
Current Owner:	BOONE,JAMES M & BETTY L/BOONE S TRUST	**Owner Address:**	22039 SAWMILL FLAT RD
City, State, Zip:	SONORA, CA, 95370-8637	**Owner Occupied:**	No
Last Transaction:	12/06/2022	**Deed Type:**	quitclaim/deed of trust
Amount:		**Document:**	0000014113



Hilton and McPherson Gold Area History

The Hilton and McPherson Gold Mine is located just off Sawmill Flat road, on Marcus lane between the towns of Sonora and Columbia. ***Sonora****, one of the oldest cities in California, was incorporated on* ***May 1, 1851*** *and was called the Queen of the Southern Mines.* ***Columbia*** *was incorporated as a city on August 9, 1857. Columbia was called the Gem of the Southern Mines. Life was good for most of the miners, and the ground was so rich that a miner could onlu have a 10ft by 10ft claim or 100 square feet.*

The Hilton and McPherson mine is located in the southern half of the Motherlode. To this day California splits itself into north and south by the Mokelumne River. The Hilton and McPherson mine is in Sawmill gulch, off of Sawmill Flat Road. During the early goldrush there were two active sawmills in the Sawmill Flat area. The sawmills were kept busy providing lumber for the miners.



Columbia Militia to fight against area bandits. – Militia-Columbia Gazette: The historical marker on the map above is placed at the site where he was thought to have been fatally shot and killed in a gunfight. The marker is located at 22041 Sawmill Flat Road, 2 miles southeast of Columbia. This area is also a part of the Mark Twain and Bret Harte trail. Source: https://sierranevadageotourism.org/entries/sawmill-flat-no-424-california-historical-landmark/02744940-0e10-4dd3-a260-d498d957538f

The population of the Sawmill Flat area was over 1000 people at one time. The area was rich in pocket gold in its heyday. The mining camp of a Mexican woman, Doña Elisa Martinez, was at north end of the flat, the hills West of Sawmill Flat were reported to have been hideout of famous bandit Joaquin Murrieta. The site is also know for the story of the "Battle of Sawmill Flat".

MINING HISTORY

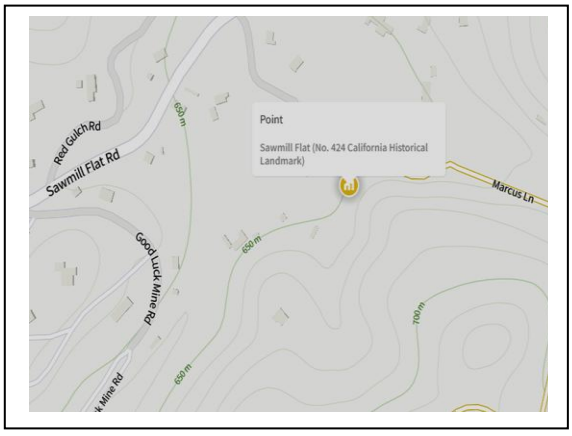
Gold mining in the area of Sonora began in 1848 with discoveries of rich placer deposits. Lode mining from small, but rich, pockets of gold-bearing quartz veins began soon thereafter. Mines in Sonora, Bald Mountain, and vicinity are described by Logan (1949) as "being highly productive and exceptionally long lived" and that "No similar area [in California] has produced as much [lode] gold from comparable [shallow] depths." A considerable amount of lode gold produced in the Sonora area came from the Sugarman-Negro mine, which is located within the classified area (Figure 4). Production for mines located within the area subject to classification total over 82,800 ounces and production from placer workings at Browns Flat, located along the western margin and extending into the southwest corner of the classified area, is reported to amount to about 225,000 ounces (Condor Minerals Management, Inc., 1985).

Pocket mines in the Sonora area are also known for their yield of rare, specimen grade, crystalline gold. At least two crystalline gold specimens taken from mines located within the area subject to classification (Sell and Browns Flat mines) are now on display at the Smithsonian Institution in Washington D.C.

Gold production in the Sonora area continued into the late 1950's. Renewed interest in the pocket mines of the area occurred in the late 1970's with marked increases in gold prices. Prospecting and mine development work is taking place at the present time.

OFR-86-12

SAWMILL FLAT MINING DISTRICT AND LAWS



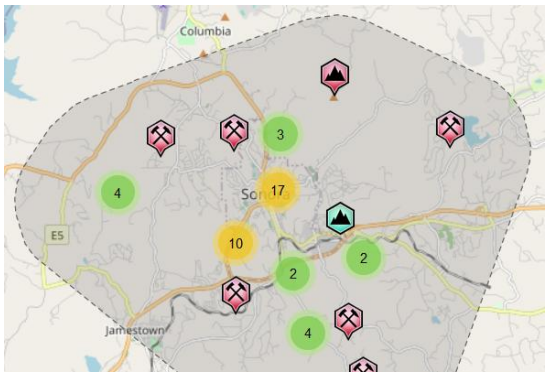
Sawmill Flat was named for two sawmills built at the fork of Woods Creek some three miles southeast of the town of Columbia. The mill provided employment for nearly 1,000 Mexicans and Peruvians. Mining towns repeatedly burned to the ground when built exclusively from lumber. Eventually sawmills disappeared when mining towns switched to using brick as a building material instead of lumber. In this territory, most Anglos preferred to work the mines and stayed clear of the mills.

Although nothing remains of the town of Sawmill Flat, it is better known as the **headquarters for the legendary murderer and bandit, Joaquin Murieta.**

Folklore, fiction and fact about Joaquin Murieta's life, crimes and death are tough to untangle. Like Billy the Kid and many other notorious figures of the West, the fictional stories are more exciting for audiences to hear than the known facts. Murieta's life story in its many forms has been widely depicted in more than a dozen novels, films, television programs and in music. "The Ballad of Joaquin Murieta" is one of many songs composed about him. What is generally accepted as true consists of:

- He was one of five notorious Joaquins who stole, burned and viciously murdered miners and spared no ethnic group.
- Called the "Robin Hood of El Dorado" for his fight again Anglo oppression.
- Inspired the creation of the movie and television Zorro character.
- The California legislature assembled the California Rangers in 1853 to capture and kill Murieta's gang. The legislature paid the rangers $1,000 reward although the murdered men were not positively identified.
- His severed head and that of 3-fingered Jack preserved in a bottle and paraded at different mining camps is generally accepted as true. The jar was on display in San Francisco and destroyed during the 1906 earthquake and fire.

Source: https://sierranevadageotourism.org/entries/sawmill-flat-no-424-california-historical-landmark/02744940-0e10-4dd3-a260-d498d957538f



The Sawmill Flat originally had its own mining district, but was considered in the Sonora Mining District as the map to the left shows, and it was also considered part of the township of Columbia, and part of Bald Mountian.

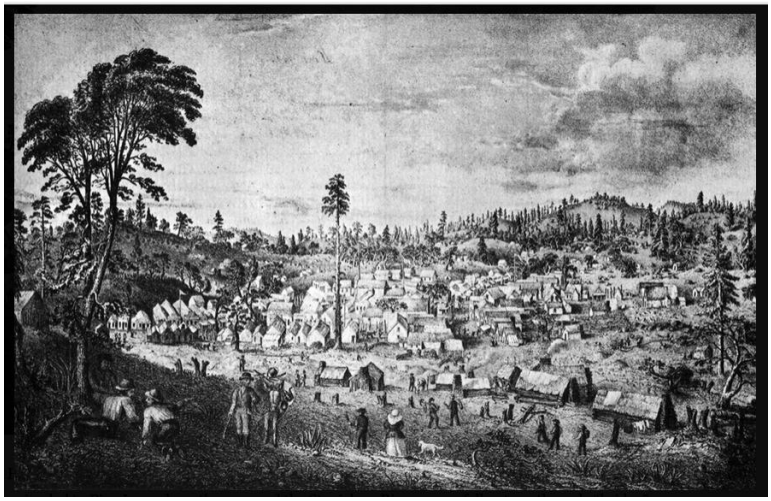
Sonora Mining District - This is one of the famous pocket-mining districts of the Sierra Nevada east gold belt. Sonora, the seat of Tuolumne County, was founded in 1848 soon after the discoverey of rich placer deposits here and at Shaws Flat to the north. It was named for the state of Sonora in Mexico. The placers were extremely rich; the Sonora placers were credited with an output of $11 million and those of Shaws Flat yielded $6 million (period values).

The famous Holden Chispa nugget, which weighed over 28 pounds, was taken from within the city limits of Sonora in Holden's Gardens. In 1879 the Bonanza mine, also in town, yielded a pocket that contained $300,000 (period values). Later, large amounts of beautifully crystallized gold with tellurides were recovered from the Sugarman and Negro mine. Pocket mining continued almost steadily until World War II, and there has been some prospecting and development.

Gold Districts of California

COLUMBIA *(Note: Sawmill Flat is considered in Columbia although it has a Sonora zip code)*
By 1855, Columbia was one of the largest and most important cities in California. The mines continued to produce fantastic amounts of gold, which in turn continued to attract more inhabitants. Substantial buildings lined the streets, private homes covered the nearby hills and flats, schools, churches, theaters and fraternal organizations served the community.

Location. This famous placer-mining district is in north-central Tuolumne County, in the vicinity of the old mining town of Columbia, five miles north of Sonora. It includes the Yankee Hill, Sawmill Flat, Squabbletown, Brown's Flat, and Springfield areas. The Sonora district is just to the south and the American Camp district lies to the northeast.



History. Columbia was one of the richest and most famous placer-mining districts in California. Early in 1850 a group of Mexican miners who had been forced off their claims at Sonora struck it rich here. Americans moved in and in turn forced them to leave. For a short period, the district was known as Hildreth's Diggings and American Camp, but it soon became "Columbia, Gem of the Southern Mines." During the 1850s and early 1860s, the diggings were enormously productive, the output averaging $100,000 or more per week. Columbia was one of the largest cities in California at this time, with an estimated population of 25,000 to 30,000. The district declined in the late 1860s, but small-scale mining continued until recently. The central portion of the old town became a state park in 1945 and is now a popular tourist attraction. Many of the famous old buildings have been restored. The value of the total production of the district has been estimated to be at least $87 million, and some have put the figure as high as $150 million.

Excerpt from: Gold Districts of California, by: W.B. Clark, California Department of Conservation, Division of Mines and Geology, Bulletin 193, 1970.

Woods Creek in the Bald Mountain – Sawmill Flat area is also famous for the famous Grizzly Adams and his bear living there. He was known to have a saloon on Wood's Creek. He used to kill Grizzly bears on the Stanislaus River frequently. Eventually he and his bear were ran out of town.

HILTON AND MCPHERSON PLACER GOLD MINE

Tertiary Gold-Bearing Gravels

Northern Sierra Nevada

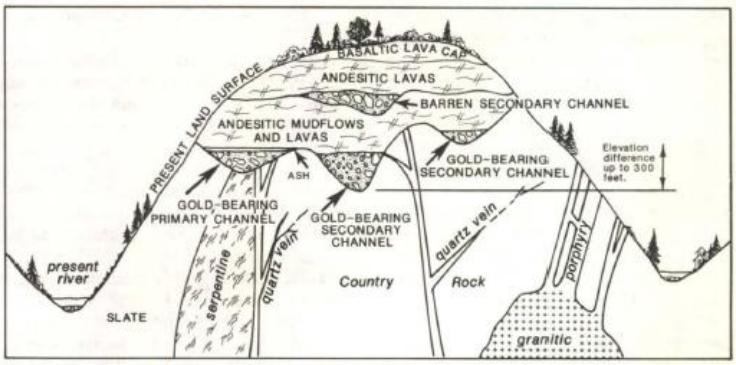
By

JOHN D. CHAKARUN, Mining Consultant
Downieville, California

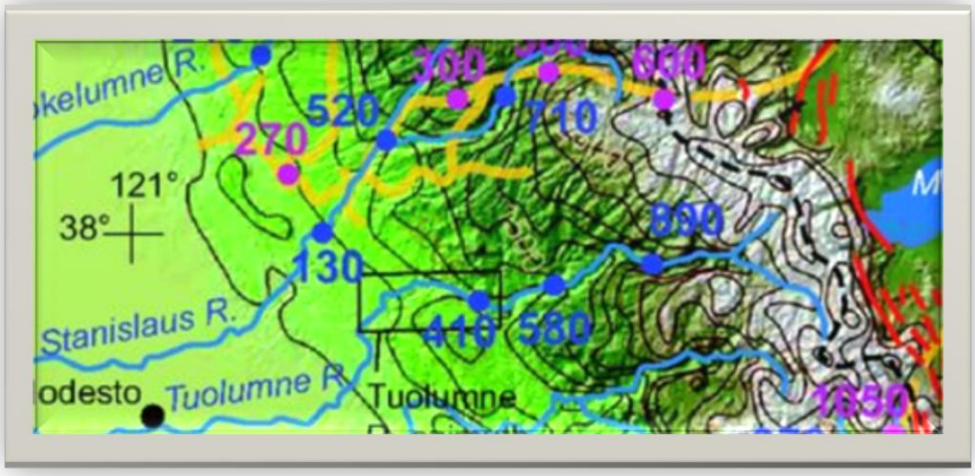
INTRODUCTION

Tertiary river channels found in the northern Sierra Nevada of California rank among the highest grade gold deposits found on the North American continent. Elevated channels that collectively formed the headwaters of the ancestral Yuba River have proven to be particularly rich and may prove to be the most likely source area for future gold discoveries.

GEOLOGIC SETTING



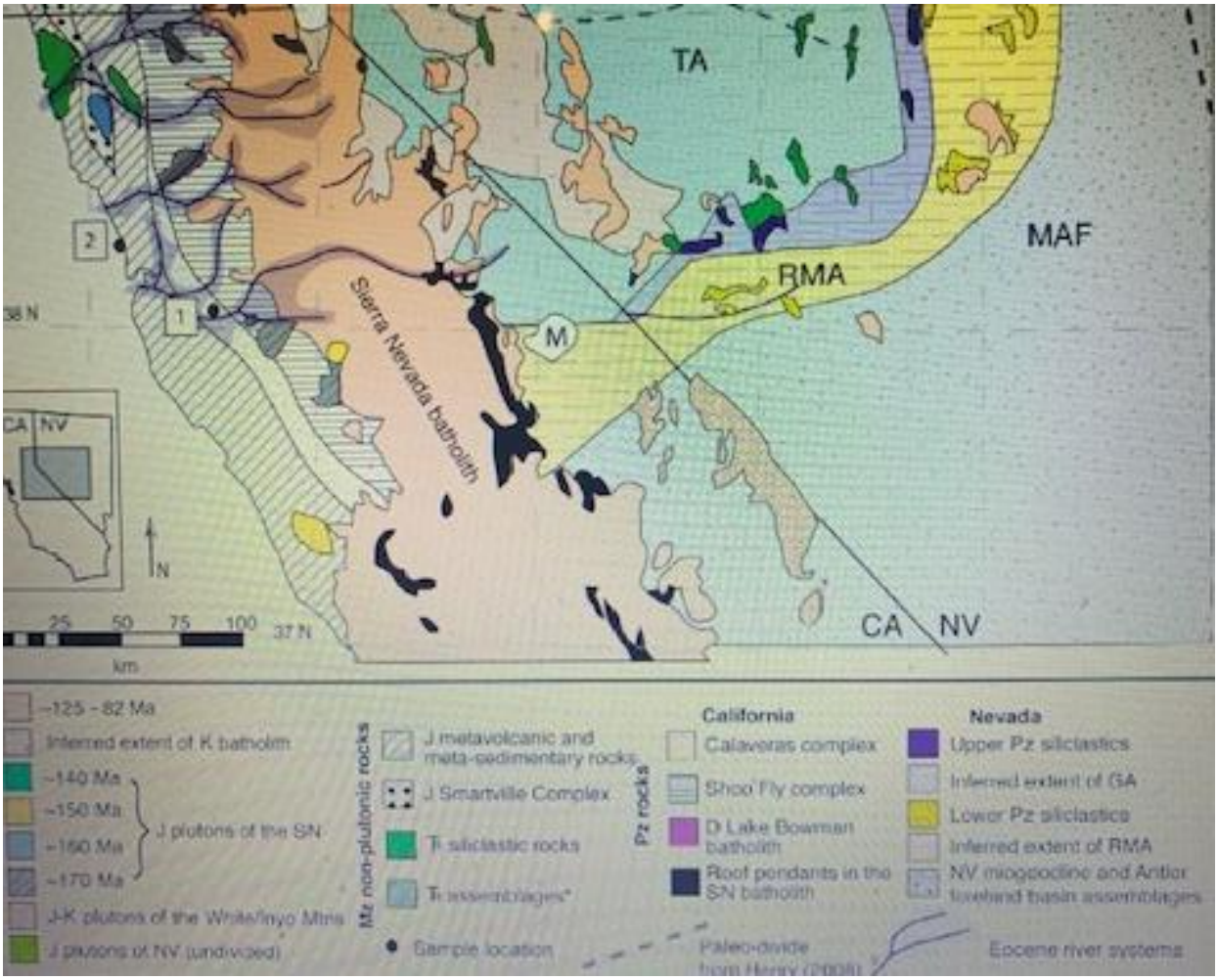
Placer gold accounts for more than two-thirds of the total world gold supply, and roughly half of that mined in the States of California, Alaska, Montana, and Idaho. The Hilton and McPherson gold mine was a placer mine in the late 1800s, but may also contain hard rock lode gold.

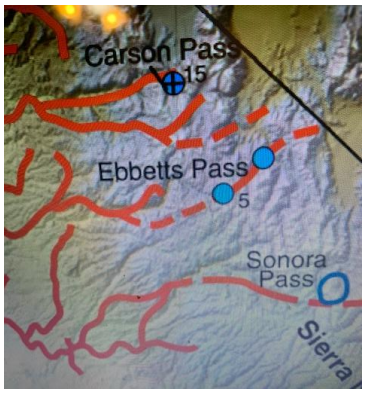


Yellow line = Ancient River Channel: The ancient river the Hilton and McPherson mined for placer gold is called a palaeochannel or commonly spelled "**paleochannel"**. A paleochannel is a significant length of a river or stream channel which no longer conveys fluvial discharge as part of an active fluvial system.

The term palaeochannel is derived from the combination of two words, palaeo or old, and channel,a paleochannel is an "old channel".

EOCENE River System – USGS MAP

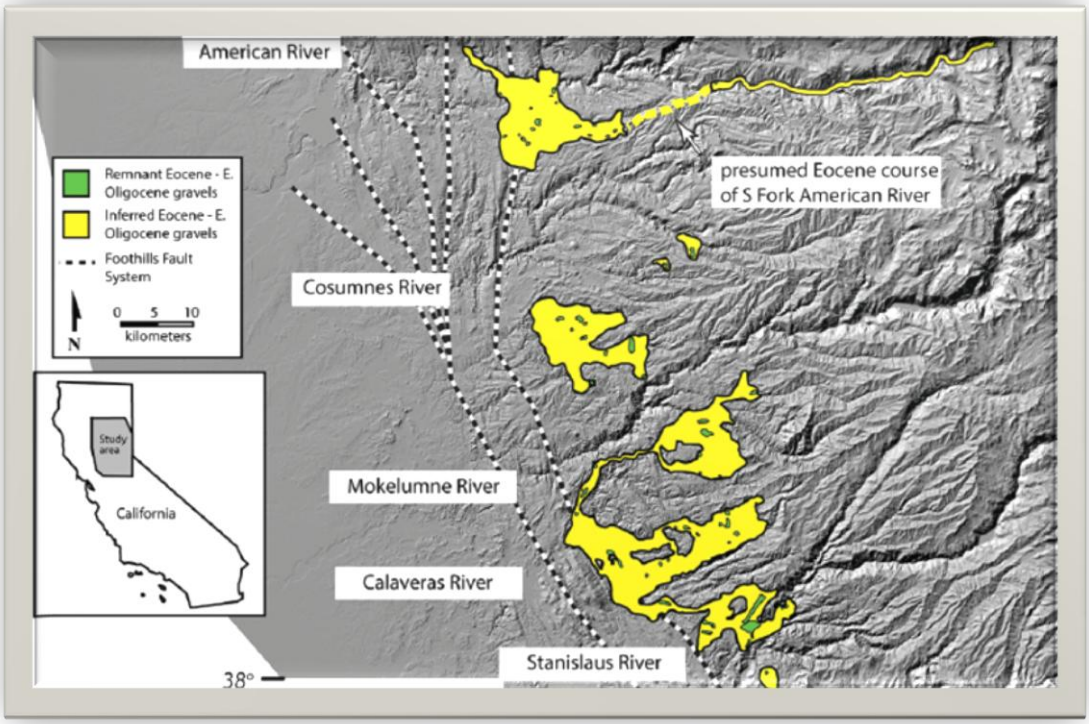


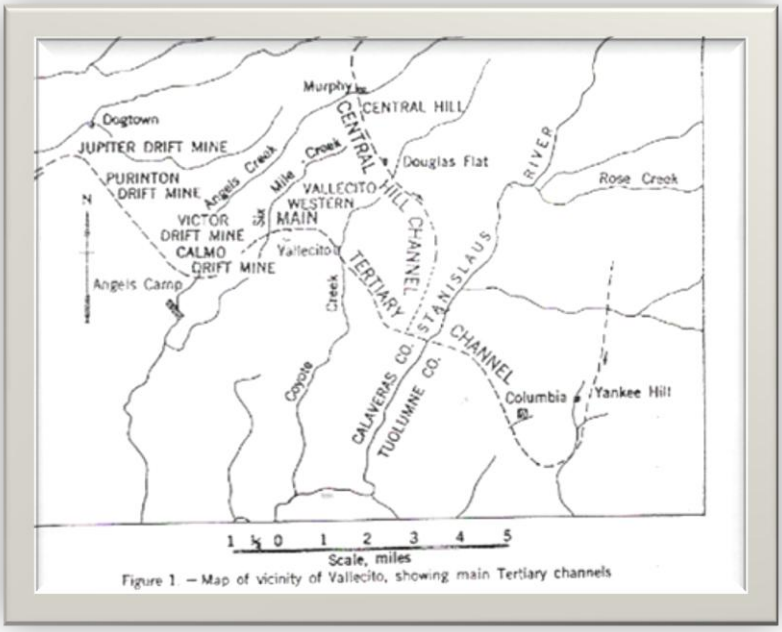


Economically important mineral deposits may be hosted in palaeochannels and associated fluvial deposits.

The most important of these deposits are syndepositional paleo-placer deposits containing gold and platinum group minerals. (Source USGS)

2020 ***American Journal of Science, Vol. 320 p816 The little yellow almost circular spot on the bottom of the map is the Hilton and McPherson mining area.***





The Tertiary Channel shown above, is considered the Columbia Channel, and could be the source of gold for the Hilton and McPherson Placer Mine, further geological work is warranted.

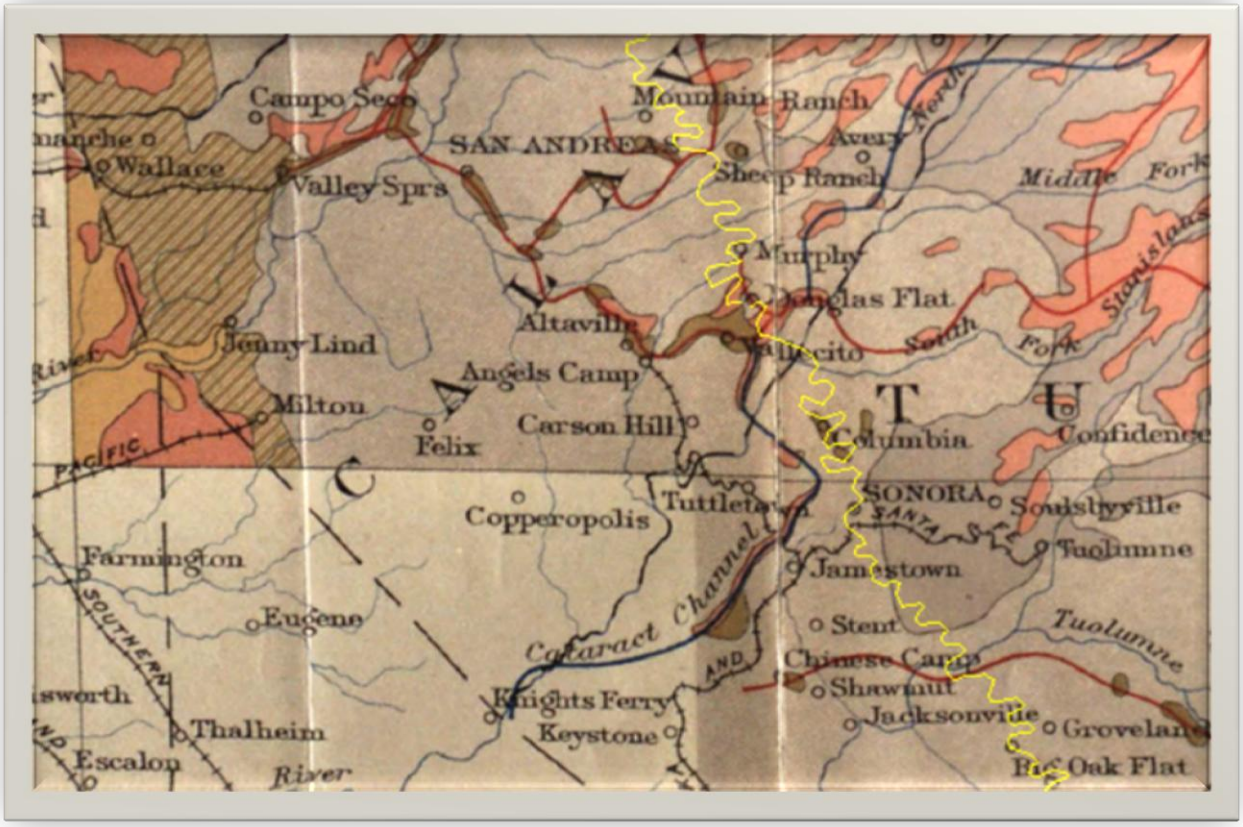
1940 Bureau of Mines Tuolumne & Mariposa Report p92:

The erosion tributary to the Columbia Basin occurred in two periods. The first was in the prevolcanic Tertiary time, when, according to Lindgren,[13] "The drainage was evidently northward by Gold Spring toward some point of the deep channel of the Tertiary Calaveras River near Douglas Flat."

This early stream bed, known as the Columbia Channel, has been traced from a source with a present elevation of 2,060 feet at Yankee Hill, south along Woods Creek, then west across the low divide southwest of Columbia to Mormon Creek, and thence north to Gold Spring, where its elevation is 2,150 feet. Beyond there the channel has been cut away by the canyon of the Stanislaus River, but on the opposite side of the river, near the junction of the Moaning Cave road with the Parrott Ferry-Vallecito highway, at an elevation of about 2,000 feet, there is a remnant of an ancient channel exposed by erosion and filled with gravel composed largely of quartz. It was mined in the past with a reported yield of nearly a million dollars. The altitude and direction of this channel remnant correlate it almost exactly with the Columbia Channel, supporting Lindgren's conclusion that in early Tertiary time the drainage of the Columbia Basin was to the north through a tributary of the Tertiary Calaveras River.

[13] Lindgren, Waldemar. The Tertiary Gravels of the Sierra Nevada of California: Geol. Survey Prof. Paper 73, 1911, p. 212.

NOTE: It is hard to find information on the Ancient Columbia and Eldorado River Channels since much of them no longer exists or that which does exist is deep underground. Ancient river channels are known for frequently having 1 ounce nuggets and are very rich in gold. Most of the gold found in Columbia was said to have come from ancient river channels.



The map above is from Lindgren's 1911 report on Auriferous Tertiary Gravels of the Sierra Nevada, and it still one of the main sources of information of California's gold bearing channels today. The yellow line drawn across the map was done to show approximately where the Ancient Eldorado Channel flowed. Tom at AquariusRadar states that:

Lindgren's 1911 Auriferous Tertiary Gravels of the Sierra Nevada is the traditional guide for general use in placer gold exploration. Lindgren's work, however is unable to logically describe, in many instances, the distribution of the placer gold deposits of the Sierra especially in the "Southern Mines". The plate 1 of his treatise shows the Murphys connection is short and seems contrived. Columbia is simply surrounded by tiny areas of "auriferous gravel" not being connected at all to any tertiary gravel channel. In the far south, Sonora and Big Oak Flat is completely devoid of any connection to an "auriferous channel" of gravel. His work makes no attempt to explain the elevation commonality of big placer gold strikes in the middle of the gold belt. Conventional explanation assumes very rich local lode (pocket mines) pay streaks as the only source of the placer gold found in all the streams of the Mother Lode. This investigation reveals an ancient river that collected and garnered the gold over millions of years and that ancient Eldorado flowed across and contrary to the path of Lingren's rivers of gravel. Lindren's map would be more complete if the various ancient tertiary gravel channels were connected to a central ancient river; note that the Ancient Eldorado drawn over Lindgrin's map is located near the terminus of the ancient gravel deposits.

Source: www.aquariusradar.com/AncientEldoradoGold.html

PLACER DEPOSITS

Placer deposits result from weathering and release of gold from lode deposits, transportation of the gold, and concentration of the gold dominantly in stream gravels.

Unless preserved by burial, a placer subsequently may be eroded, and either dispersed or re-concentrated. (Source: Lindgren 1911)

From 1911 USA Geological Congressional Report

A significant finding in Lindgren's 1911 "Tertiary Gravels of the Sierra Nevada of California" is the fact that some of the best gold values in these prehistoric rivers were associated with areas where metamorphic rocks and quartz were combined in abundance. Quartz is likely known to all of us, but if you're not sure what metamorphics are here is a simple definition:

> Metamorphics are rocks that typically undergo drastic structural changes over time, with the primary "change" drivers being intense heat and very high pressure. Examples of metamorphics include gneiss, schist, marble, quartzite, and slate."

Moreover, Lindgren states that, "**the richest Tertiary gold zones in California's Northern Motherlode region are found where channels of metamorphics and quartz gravels cross or "bisect" existing auriferous vein material.** These so-called Tertiary "contact zones," if located

and worked effectively, can produce astonishing amounts of placer gold (as proven in the 19th and early 20th Centuries)."

Lindgren 1911 Tertiary Channel:

Tertiary stream beds—the "channels," as they are called—proved rich but difficult to mine. New methods were devised; by hydraulic mining the gravel banks were washed down by the aid of powerful streams of water, and by drift mining the bottoms of the old stream beds were followed by tunnels underneath the heavy volcanic covering.

Millions of dollars were annually recovered from these Tertiary channels, and the heyday of this industry fell in the seventies of the last century. Since then, owing to the prohibition of hydraulic mining and the gradual exhaustion of the richer channels suitable for drift mining, the industry has slowly decayed until in the year 1908 the total production of the drift, hydraulic, and surface mines of the range, for the first time since 1848, fell below $1,000,000; indeed, this figure also includes the value of the gold washed from Quaternary gravels along the rivers. Gold is still contained in the Tertiary channels; miles of them are still unworked; but the problems are how to extract it without damage to other property from the débris and how to reduce the cost of drift mining so as to permit the exploitation of the less remunerative deep gravels.

To compensate for this decay a new industry, that of dredging, has been developed along the bottom lands, where the present rivers emerge from their canyons and where fine gold has accumulated during Quaternary time on clayey or tuffaceous bedrock. During 1908 gold valued at nearly $7,500,000 was recovered by this method along the foot of the Sierra Nevada.

"TERTIARY CALAVERAS ANCIENT RIVER OF GOLD

"The Ancient Rivers of Gold in northern California are from the Tertiary Period. The Tertiary rivers existed millions of years ago and many of them had large quantities of gold within their gravels. Because of that, they are known as the "Ancient Rivers of Gold." Portions of an ancient river may be found at ground level or near the top of a mountain, or on the side of a mountain, or buried." Ref: http://www.goldmaps.com/ancient_tertiary_rivers_of_gold.htm

ANCIENT RIVER BEDS

Another source of gold was the gravel of the Tertiary streams. Miners in the earliest days of the 1850s were distinguishing between the recent placers and the auriferous gravels of the ancient or fossil rivers. Often found on ridges or hilltops, these "dry diggings" required a much more organized approach.

As mining spread, mining techniques changed. At first, miners relied on "panning" gold--swirling water from a stream in a shallow pan until the heavier, gold-bearing materials fell to the bottom while the water and lighter sand fell out over the rim.

This was soon displaced by simple mining machines like the wooden "rocker" into which pails of water could be emptied and processed at one time. Even this minor technological advance meant that there was now an investment in equipment and methods that worked best with a team of men, not a single miner. Thus miners began to join together in formal and informal companies. Hilton and McPherson were two such miners that pooled their resources and developed a placer mine together. They were able to get the Tuolumne Water Company to bring them flume water!

Source: 1968 Tertiary Gravels https://pubs.usgs.gov/circ/1968/0566/report.pdf

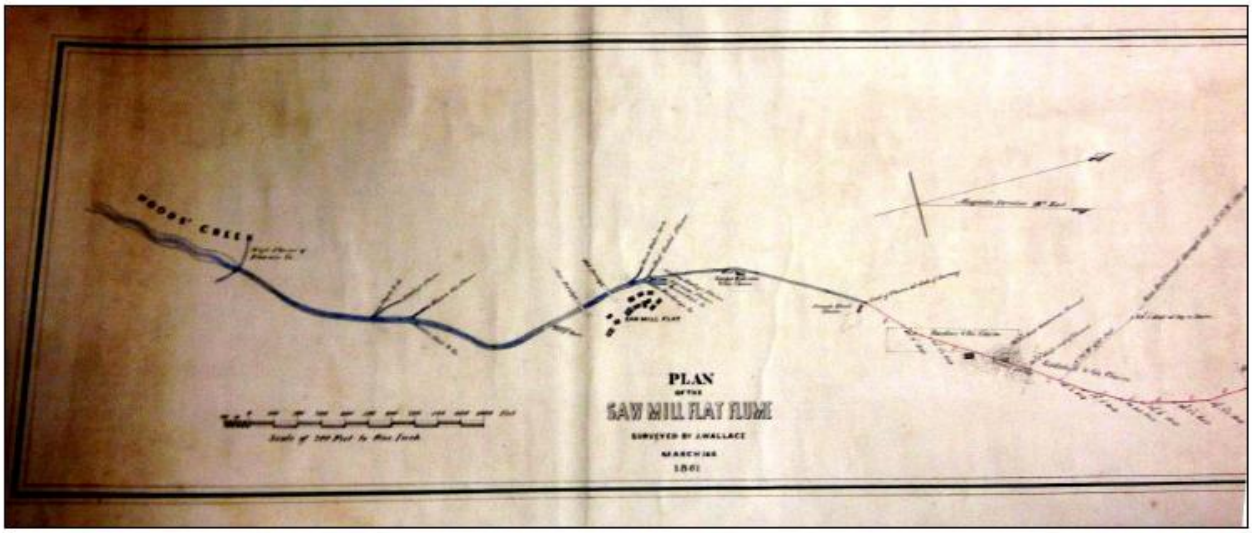


Figure 19. Western portion of John Wallace's Plan of the Saw Mill Flat Flume, March 1861. (Courtesy of the Columbia State Historic Park Archives.)

This mine was a hillside gold-bearing gravel mine that was left from an ancient river channel. Based on the historical and physical evidence hydraulic mining was used at the Hilton and McPherson Placer Mine. The Stanislaus River and Woods Creek were diverted from their original courses to provide water for primitive high-pressure hoses that washed down the gravel from the hillside. Hydraulic Mining washed down so much silt that the bed of the Sacramento River was raised several feet by the tons of debris that came down from the hills, drinking water was polluted, and the danger of flooding rose sharply.

Hydraulic mining arrived in Columbia during 1856. Although this method of mining was extremely profitable, it was also very destructive. Using giant monitors to shoot water at tremendous pressure, the miners literally blasted the gold from the ground, leaving a vast expanse of oddly twisted limestone formations, visible directly across from the Wells Fargo building in Columbia and throughout the surrounding countryside as their legacy. (Dept of Conservation)

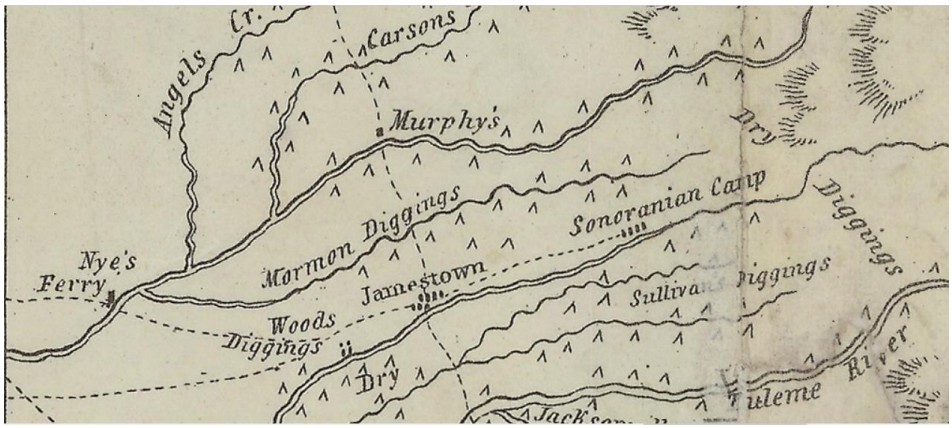
***In 1884**, the courts <u>banned</u> hydraulic mining. Based on the reviewed historical records not much placer mining was done at the Hilton and McPherson after 1884. Based on a site review, no large scale mining has been done since the Hydraulic mining.*

Currently, in general, placer gold mining entails digging the material up, loading it into a trommel which washes it, running the washed material down a sluice box, and then washing the mats from the sluice

box into a tub and then processing the tub concentrate. Processing the concentrate involved either panning it out, using a shaker finishing table, or wheel.

The ancient river channels were very large. Over the millions of years streams, creeks, brooks, tributaries, bayous, and rivers all drain downhill and degrade the earth beneath them.

As these water flows wash away the earth they also washed the gold out of the gold bearing veins which can be quartz, granodiorite, schist, and other types of rocks.



1849 Map

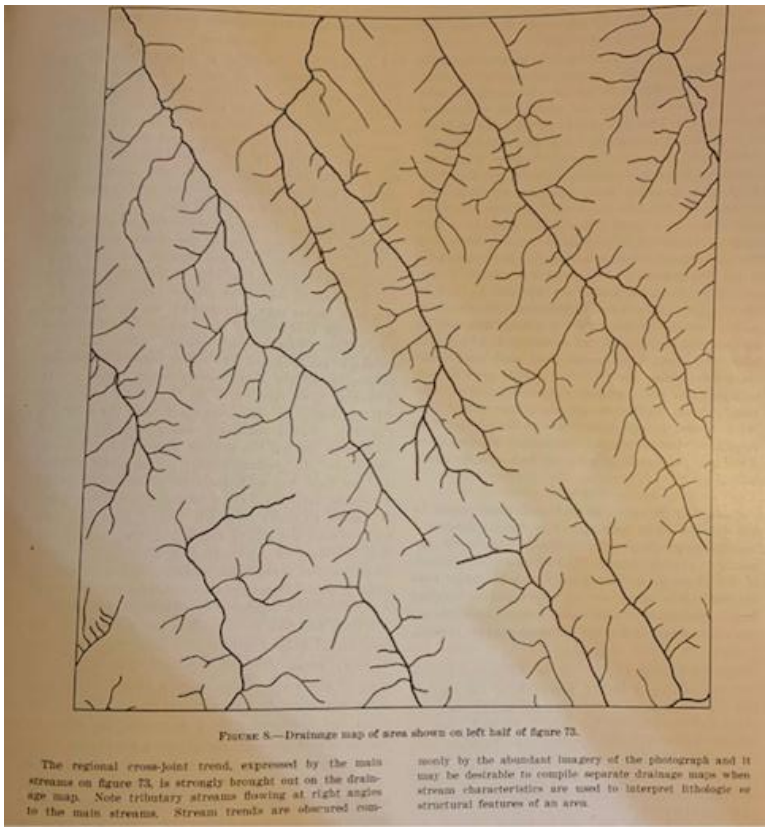


FIGURE 8.—Drainage map of area shown on left half of figure 73.

The regional cross-joint trend, expressed by the main streams on figure 73, is strongly brought out on the drainage map. Note tributary streams flowing at right angles to the main streams. Stream trends are obscured commonly by the abundant imagery of the photograph and it may be desirable to compile separate drainage maps when stream characteristics are used to interpret lithologic or structural features of an area.

The above area is where the Hilton and McPherson Mine is located.

Excerpt from the CA State Bulletin 193 - Gold Districts:

Gulch and Creek Placers
Gulch and creek placers are common in nearly all placer districts of the world. They lie in the small valleys, guts and gulches that are tributary to the mainstream systems of a district. Literally thousands of these deposits have been worked, nearly all in a small way.

The main characteristics of these types of placers are:

1. Most occur in moderately hilly country exhibiting the effects of protracted weathering and denudation. A few occur in regions of alpine topography, but these are generally marked by spotty pay streaks.

2. The gradients of the present (and past) stream systems are moderate.

3. The source of the gold and associated heavy minerals is generally close at hand, either at the heads of the gulches and creeks or along their valley sides. The source of the gold is commonly auriferous quartz veins or gold-bearing sulphide bodies; disseminated gold in quartz blows and stringers in the country rocks and in pyrite and other sulphides in graphitic shales and other rocks is the principal source in some instances.

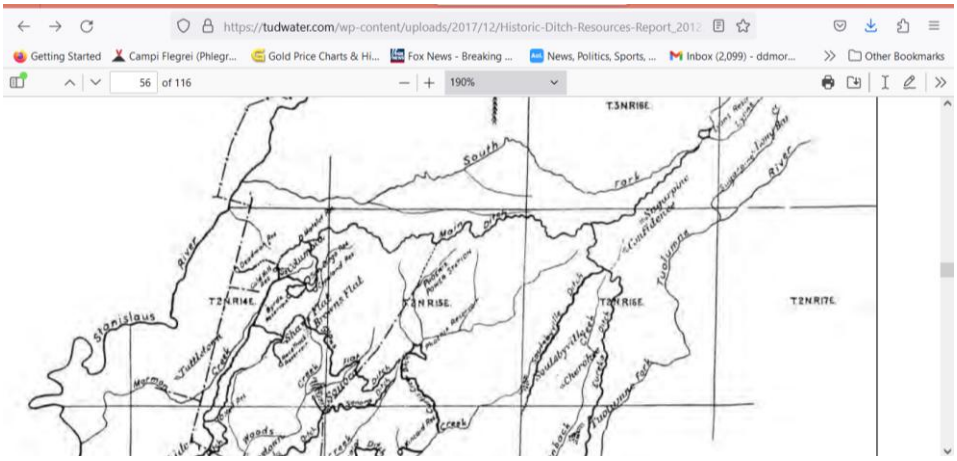
4. The heavy mineral constituents accompanying the gold are mainly those found in the primary gold deposits, in closely associated deposits or in the enclosing country rocks.

5. The gold is usually coarse and commonly higher in fineness than that in the primary deposits. Large nuggets, wires and crystals are a feature, and nodules of vein quartz or sulphides with veinlets of gold or containing disseminated gold are common.

6. The pay streaks are rich and generally on the bedrock or in the top few feet of the bedrock. Most pay streaks are well defined and fairly regular. False bottoms may occur but are not a common feature.

7. The overburden covering the pay streaks is generally not deep except in depressed areas or where glacial deposits complicate the picture.

INFORMATION FROM TUD – Tuolumne Utility District

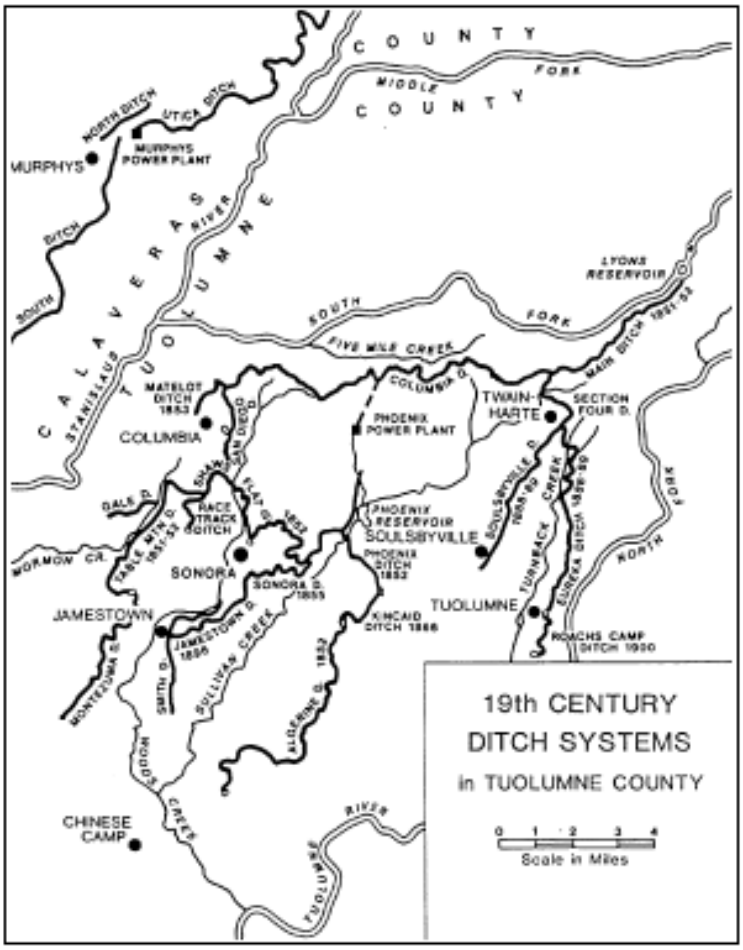


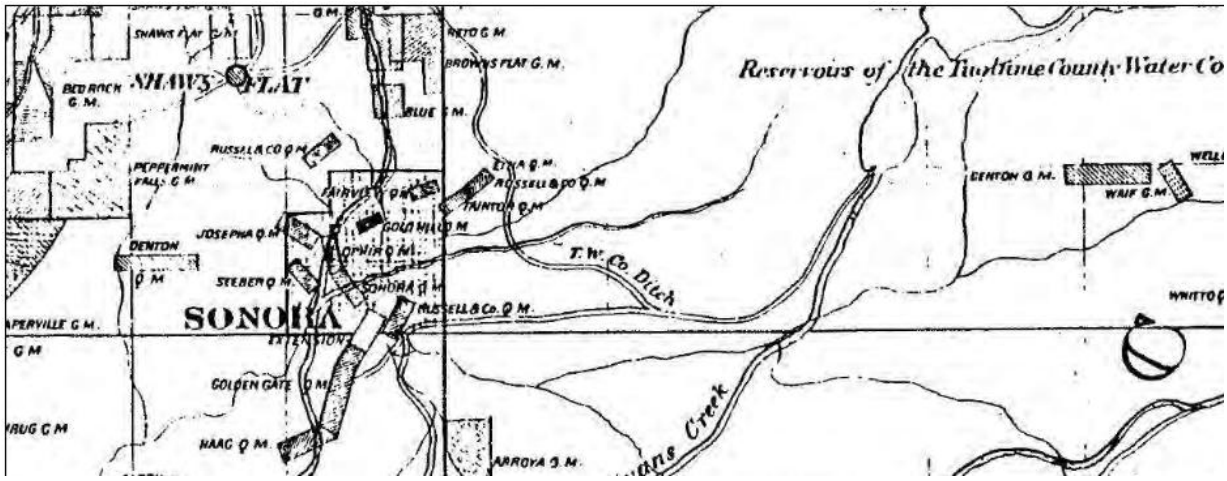
1858 - Tuolumne County Water Company was reformed into Tuolumne County Water and Electric Power Company. Columbia and Stanislaus River Water Co. 1856-1860:

"While the California State Mining Bureau didn't come into being until 1880, John B. Trask of the California Academy of Sciences in San Francisco was named Honorary State Geologist in 1851 -- two years after the Gold rush began and one year after statehood. The mining records were not consistent during these early days.

Col-Sans Water Co The completion was made a day of celebration, as befitted the occasion. From the Tuolumne Courier of December 4th, 1858, they resolved to try the effect of a petition to the officers of the Tuolumne County Water Company, stating their grievances, and asking for a reduction in prices.

For some cause best known to themselves, the Trustees of that Company refused to accede to their wishes, and the evil being of such an oppressive character, the opposition to it soon became general. The consequence was the memorable Water Strike —an event long to be remembered in Columbia—and we are here to celebrate the consequences of that strike."





Placer gold was discovered in the limestone belt around Columbia as early as 1849, but water was needed to work the placers during the dry seasons. In order to work their claims, the miners in Columbia formed a company to bring water to the area, and on July 1st of 1851 the TCWC began digging a ditch from the South Fork Stanislaus River to the district to supply the mines and communities in the area. System water first reached Columbia through Five Mile Creek in May of 1852, and by August the entire ditch and flume system was completed and has been in continuous use since.

In addition to Columbia, the ditch supplied Shaw's Flat, where placering had begun as early as 1848; Springfield, at the head of Mormon Creek; Matelot Gulch, named for the French sailors who mined there in the 1850s; Martinez, for Doña Martinez, where gold was discovered in the 1850s; Knapp's Ranch on San Diego Hill; Knickerbocker Flat; Sawmill Flat at the forks of Wood's Creek, where Mexicans, Chilenos, and Peruvians mined; Yankee Hill at the head of Wood's Creek; Squabbletown; Douglasville; Gold Springs; Union Hill; and numerous other camps whose names have been lost to history.

Depicted on the map drafted by John Wallace in 1853, a veritable spider web of ditches and flumes radiated around Columbia, bringing water to each and every mine, claim, and gulch throughout the district (Figure 10). Numerous other unmapped ditches carried water through privately owned ditches from the company system to individual claims and reservoirs. TCWC reservoirs depicted at that time included Matelot, San Diego, Gold Hill, Byrd's, Copeland's, Deadman's, Summit Pass, and others (Wallace 1853, 1861, 1863).

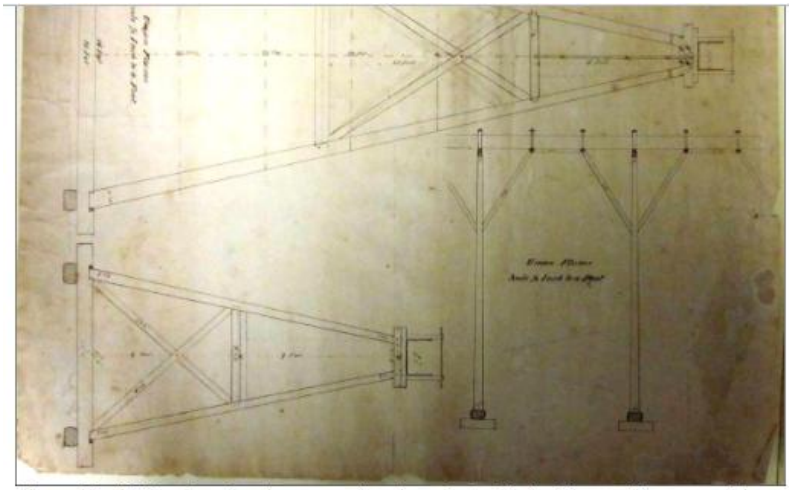


Figure 23. Wallace's undated construction plans for the Union Flume. (Courtesy of the Columbia State Historic Park Archives.)

Figure 23. Wallace's undated construction plans for the Union Flume. (Courtesy of the Columbia State Historic Park Archives.)

transported it down a gulch to the Dondero Mine, a distance of 2.02 miles (Rhodin 1916). Southerly, the Sawmill Flat Flume and Ditch, from Yankee Hill to below Sawmill Flat, was still in use in 1901 (Deed Book 46:417, 520).

By 1916 the Main Columbia Ditch was described as taking water directly from the Main Ditch at Big Hill Camp and carrying it to Columbia and vicinity; it was 4.04 miles long, with an average bottom width of 4½ feet, and in very good condition. At the junction point above Columbia the supply was distributed into a number of small ditches that

Depicted on the map drafted by John Wallace in 1853, a veritable spider web of ditches and flumes radiated around Columbia, bringing water to each and every mine, claim, and gulch throughout the district (Figure 10). Numerous other unmapped ditches carried water through privately owned ditches from the company system to individual claims and reservoirs. TCWC reservoirs depicted at that time included Matelot, San Diego, Gold Hill, Byrd's, Copeland's, Deadman's, Summit Pass, and others (Wallace 1853, 1861, 1863).

By the time Wallace completed his next map of the district nine years later, over 12 reservoirs were depicted surrounding Columbia, and in the ensuing years he designed the Saw Mill Flat Flume; a pipeline across Yankee Hill Road; a reservoir in Hardscrabble Gulch; flumes across Experimental Gulch and Summit Pass; a flume from the End of Pipe to the Head of Negro Gulch; the Union Flume; and probably many others for which no plans are extant (Figures 12, 19, 20, 21, 22, 23; Wallace 1862; Wallace Plans n.d., various).

The 1870 GLO Plats for T2N, R14E and 15E, depict the Columbia Ditch in approximately the same location as the present alignment, as do the Dart (1879), Beauvais (1882), and Barton (1896) maps. The 1907 Thom Map and 1909 Tuolumne Water Power Company Map reflect the same alignment, and depict Matelot, San Diego, Gold Hill, Copeland, Byrd, Deadman, and Race Track reservoirs.

Ditches no longer in operation that were connected to the Columbia Ditch at the top of Big Hill include the Bald Mountain Branch (1.42 miles long), which connected to Sawmill Flat and vicinity and to the reservoirs of the Electric Light and Old Miner's Reservoirs, providing water to a power generating station in Sonora (Deed Book 46:417, 520; Grunsky 1896; Rhodin 1916). Other branch ditches carried water to the Old Smooth Bore and Hardscrabble mines (Barton 1896; Dart 1879), and as far south as the Radovich and Belmont mines in Section 24, T2N, R14E, near Brown's Flat (Figures 24, 25; Barton 1896). The Dondero Ditch carried water from about one mile below Big Hill Camp and

The mines eventually began to play out in the early 1870's, but not before the area had yielded some $87 million in gold. That would be nearly $2 billion at today's prices. After the easily mined placer gold was gone and there was no other reason to stay, the population began to drift away to other camps and other ventures. The town began to decline and over the years many buildings were torn down to mine the land upon which they stood. Columbia joined ranks with numerous other gold camps and became a ghost town.

1923 California Gold Placers by Halerich Ancient Rivers:

ACKNOWLEDGMENTS.

For assistance and cordial cooperation in the preparation of this bulletin, the writer is mainly indebted to the miners of the State of California. At all times, and in all places, from the offices of the principal mining companies in the larger cities to the humblest cabins in the mountains, the most ready support and assistance have been invariably afforded, often at considerable personal inconvenience and expense to the donors.

To my very conscientious and capable assistant in the field during the early stages of the work, Mr. Theodore Van Dervoort, Jr., much credit is due for the chapters on the Klamath and Feather River regions. To Messrs. Leon Clough, Ben Jones, E. C. Kelsey, and C. D. Hazzard, of Quincy, California; to Messrs. W. W. Waggoner, William Maguire, and E. C. Uren, of Nevada City; to Mr. Charles Jerrett, of Georgetown; to Mr. Tillotson, of the Glenn Mine, Placer County; to Mr. Almon Smith, of Chico; and to Messrs. James M. Hill, of the U. S. Geological Survey, Arthur Nicholls, Mark Alling, Henry Bradley, and W. A. Hunter, of San Francisco, thanks are also given for the use of personal notes and accumulated data. To Mr. Charles G. Yale, formerly of the U. S. Geological Survey, for kindly criticism and assistance; and to Mr. H. Foster Bain, who, while editor of the Mining and Scientific Press, first directed my attention to this work, my thanks are likewise due.

To many others, too numerous to mention individually, of the mining fraternity in California thanks also are due for time and services freely given in the preparation of this report.

In conclusion, as an independent consulting engineer called into the service of the state for the purpose of making this report, I wish to acknowledge the splendid support and unfailing courtesy of all of the officials of the State Mining Bureau, both under the former administra-

GOLD PLACERS OF CALIFORNIA.

Foreword.

In spite of the fact that the gold placers of California have produced over a billion dollars since their discovery in 1848, the idea that they are now completely exhausted is entirely erroneous. The closing down of the hydraulic mines of the State was accomplished by the famous Sawyer decision of 1884, and their attempted reopening, under the terms of the Caminetti Act of 1893, was so bitterly fought at every turn by the agricultural interests of the State, that the industry, so far as tributaries of the Sacramento and San Joaquin rivers are concerned, has lapsed into a moribund condition.

The primary cause of this was the complete disregard of the rights of the farmers of the State by certain mining interests prior to 1884 and a revengeful spirit shown by certain farming interests toward the miners when the agricultural interests gained the upper hand in the courts.

Had a spirit of compromise prevailed in the ranks of both the mining and the agricultural interests, there would have been in 1884, and there would be now, no reason why a workable plan for the continuation of hydraulic mining should not have been put into effect. In the course of an investigation of placer mining conditions in this State, made by the California State Mining Bureau, in the past two years, certain facts have been clearly established; and it is the purpose of this report to prove these facts, which may be summarized as follows:

The principal gold placer area of California lies in the Sierra Nevadas between Susanville on the north and Mariposa on the south. This area is the one that is restricted by the present debris law. It is tributary to the Sacramento and San Joaquin rivers, which have been classed as navigable streams. Aside from this area, there is a very considerable yardage of available gravel still remaining on the tributaries of the Klamath River, which will be discussed in the economic section of this report. The district within the Sierras, however, is by far the most important from an economic standpoint. From investigations thus far, it seems fairly safe to assume a total of about seven billion yards of gravel distributed among the different drainage areas, as follows approximately: Feather River 500,000,000 yards; Yuba River 3,500,000,000 yards; Bear and American rivers 2,500,000,000 yards; Mokelumne, Cosumnes, Calaveras, Tuolumne, and Stanislaus rivers 500,000,000 yards. The above figures include both drift and hydraulic ground.

The above total of 7,000,000,000 yards is of course not all available for working from an economic standpoint. It is fairly safe to assume that at least 10 per cent of this, due to its location and elevation with

of his subject, the reader is referred to Mr. A. J. Bowie's treatise on hydraulic mining.

One subject, however, should perhaps be mentioned in addition. The above methods of mining secure their greatest efficiency in gravel that is moderately loose and free. In a great many of the larger deposits of gravel now remaining in California, the material is so tightly bound together that it becomes necessary to blast the banks before hydraulicking.

The usual procedure in this case is to run a tunnel directly into the bank, either on bedrock or near the bottom of the ground which is being benched off to a distance which will approximately equal the height of the bench. From the end of this tunnel cross cuts are run at right angles in directions so that the whole working resembles a 'T' in form. This tunnel is carefully packed with explosives according to the mass of the ground which is to be broken, and the hole is then carefully sealed and tamped, connection being first made for electric detonation. After the bank has been shattered and broken by this discharge, it is eroded and broken down by the hydraulic giant in the usual manner. The cost of this blasting will, of course, vary with the physical conditions which obtain in the bank. As a rule, it will vary between 2 to 5 cents a yard.

DRIFT MINING.

Gravel that is covered by flows of igneous rock or by a heavy deposit of overburden, and the metal in which is concentrated within a relatively narrow strata, is usually mined by drifting.

The relative importance of the factors that govern the choice of this form of mining is often dependent on the conditions under which operation must be undertaken. For instance, in the early days of California mining, many deposits were drifted for their richer streaks by miners with little or no capital. Later, some of these deposits were hydraulicked with great success. In the same way a large proportion of the Oroville ground was drifted before the advent of the dredge.

The proper conditions for the operation of a drift mine may be stated as follows: Values heavily concentrated in the gravel, without too large boulders, too much water or running sandy ground; bedrock that should not be swelling, and yet which is soft enough to have caught and retained a fair proportion of the bedrock pay or heavy gold. An ideal drifting ground is one in which gravel is about five feet thick on a slate bedrock and is capped by a smooth homogeneous body of lava or volcanic mud. The gravel should be fairly loose, without cement.

In a drift mine skilled miners and timbermen are a necessary adjunct. It is often necessary in opening up such a mine to run long cross-cut tunnels or to sink fairly deep shafts. These add greatly to the cost of opening a mine. A heavy flow of water, which necessitates much pumping, is also a source of expense. For this reason, ground should be opened up by tunnels which are deep enough to drain the channel if possible. Running and sandy ground requires closer timber-

frozen ground, as in Alaska, drift mining has been almost universally employed in the smaller holdings. During the winter the gravel is taken out and piled on the dump to be sluiced later with the spring thaw. Steam batteries with points are employed, and the necessity of timbering is obviated by the frozen nature of the ground.

In the following, an abstract has been made of a report on 'Drift Mining in California', by Russell L. Dunn, published in the Eighth Annual Report of the State Mineralogist of California. In part quotations have been made directly.

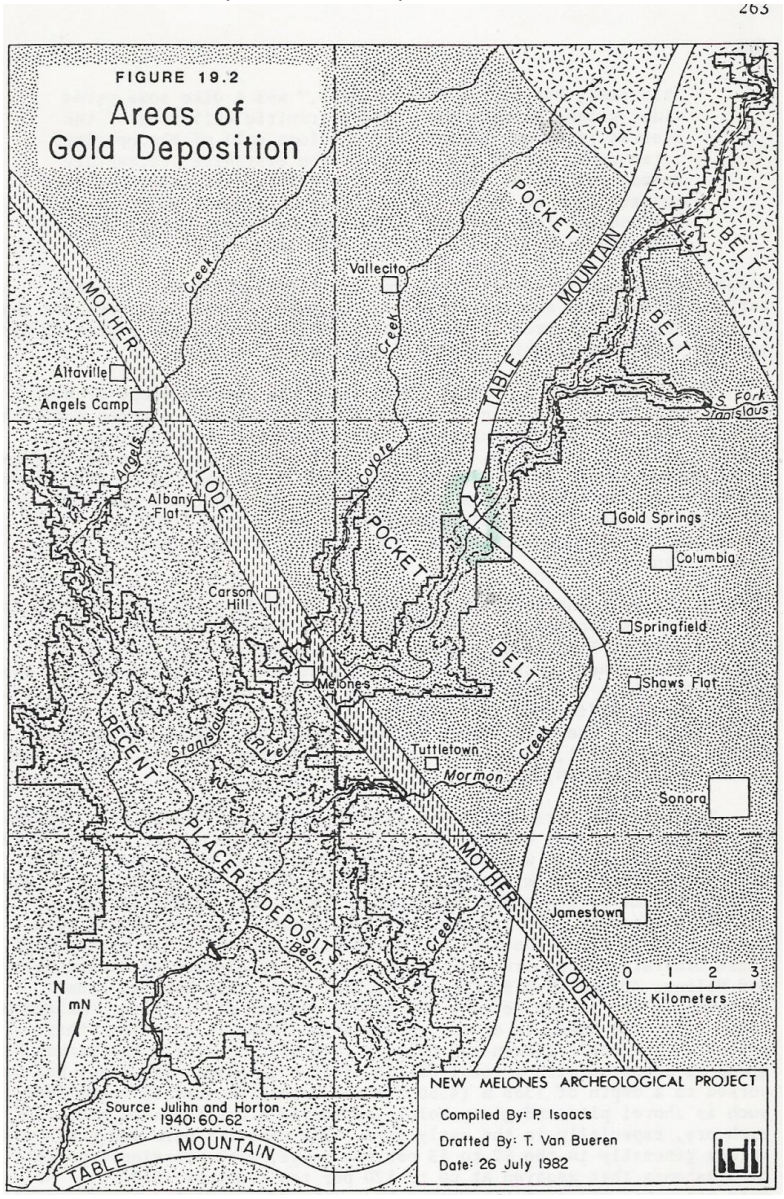
Drift mining is peculiarly a California development, originating from the conditions of location of these deposits. The earlier channels now cut by the modern streams are usually accessible to bedrock tunnels. The ancient river system, whose buried channels are auriferous, extended from what is now Butte and Plumas counties on the north to Tuolumne on the south, and from the eastern edge of the Sacramento Valley almost to the summit of the sierras. The topography of the country during their period of formation can not now be restored with more than probable certainty. Apparently the ancient river system was similar to the present one in relative location and direction of flow of the main streams.

The ancient streams, judging by the masses of gravel in their channels probably carried larger volumes of water than the present streams, and the mean gradient of their beds was considerably more than that of the existing streams at corresponding points, it being almost certain that the elevation of the Sierra to its present condition and altitude was before the cretaceous period. The general surface of the country was not as rugged as now, being hilly rather than mountainous. The gold in the channels is a product of the primary disintegration of the auriferous slates, talcose rocks, and quartz veins. The erosive agencies of water and cold were probably more powerful then than now. Le Conte says that a period of glacial erosion was prior to the formation of the channels, and was the greater disintegrating force.

The changes in the location of the channels have been made by eruptive agencies and their filling up with accumulations of gravel, sand, and clay. This covering up and obliteration of the surface was not the result of one season of eruptive activity, but several, separated by enormous intervals of time. The first flows probably did not completely divert the streams, except at a few points, but merely raised their beds and changed the character of the channel deposits. The period of inactivity was in time followed by another period of eruption, and in its turn by a period of quiescence. This sequence repeated several times, but with a diminishing power, and finally ended in the complete cessation of the eruptive energy. These latter flows consisted largely of volcanic ash and volcanic mud. The channels and surface depressions generally, and some of the lower hill elevations, became more and more obliterated until at the end of the last period of eruption a completely new topography was forming, the beginning of the present.

HILTON AND MCPHERSON POCKET BELT

The pocket belt region consists of individual deposits situated in the vicinity of the towns of Columbia, Sonora, and Tuttletown all between the Mother Lode Belt and the East Belt of gold mineralization. The deposits were noteworthy for their small, but very rich, gold-quartz veins. The most productive mines were situated at geographic features known as Bald Mountain (Sonora) and Jackass Hill (Tuttletown). The many individual pocket deposits on and near Bald Mountain were thought to be major contributors of gold to the very large placer deposits at Columbia, Shaws Flat, and Sonora. (Source USGS)



" The pockets apparently were formed by rich gold solution ascending in fissures that were opened along the walls and in the dike itself by slight movements subsequent to its cooling." (Julihn and Horton 1940:62)"

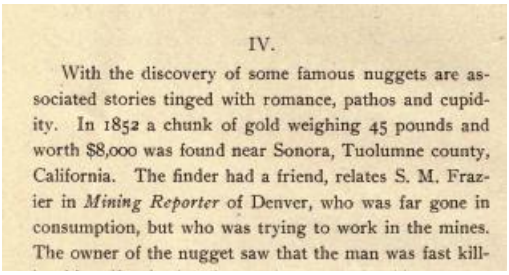
POCKETS OF GOLD and AWESOME NUGGETS

Nearby nuggets: Information from Gold Districts of California Bulletin 193 California Division of Mines and Geology 1976:

- Wood's Creek, Sonora District 1848 75 pounds gold, from 150 pound quartz-gold mass
- Knapp's Ranch, Columbia District 1850s 50 pounds
- Sullivan Creek, Columbia District 1849 448 ounces (28 pounds), and later a oblong smooth piece of native gold 360 ounces
- Gold Hill, Columbia District 1850s 360 ounces
- Columbia District, Tuolumne County 1853 283 Ounces
- Holden Chispa Nugget, Sonora District 1850 28 pounds

In 1992, at the Harvard Mine in nearby Jamestown a 60 pound quartz and gold nugget was found. John Kautz, owner of Ironstone Vineyards in Murphys purchased it for an undisclosed amount and he named it the 'Crown Jewel". He had the quartz dissolved by an acid treatment and 44 troy pounds of gold was left. Kautz opened a museum devoted to the history of gold mining in the area, to display the gold specimen. I am pretty sure that it's a replica of the nugget on display, but it is cool to see.

The Hilton and McPherson Gold Mine is located in a specific pocket belt, the same pocket belt that Carson Hill in Calaveras County is in. In November 1854 the largest gold nugget in California, weighing 195 pounds troy, was found. It would be worth over $5 million today.



IV.

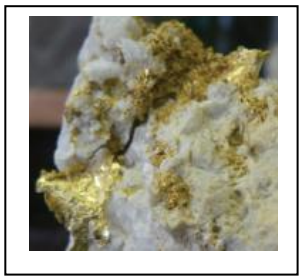
With the discovery of some famous nuggets are associated stories tinged with romance, pathos and cupidity. In 1852 a chunk of gold weighing 45 pounds and worth $8,000 was found near Sonora, Tuolumne county, California. The finder had a friend, relates S. M. Frazier in *Mining Reporter* of Denver, who was far gone in consumption, but who was trying to work in the mines. The owner of the nugget saw that the man was fast kill-

In 1852 a 45 pound nugget was found near Sonora. In one story that I read that said it came from the east side of Bald Mountain. The owner lent it to a friend who was sickly and the friend made money by charging people to see it. After a few years of not hearing from his friend, the owner was surprised when a bank wrote him and said his friend had died and they had melted it down and had a check for him.

In 2016 - A prospector named Espinoza said he had been working a particular portion of Woods Creek where you pay to mine, and that when he saw a big rock that "had never been moved by anybody," so he moved it and found a 17.9 troy oz nugget! The nugget was worth over $40k.

THE POCKET BELT

The first deposits in this belt were reportedly discovered in 1850 (Sugarman Mine at Bald Mountain) and 1851 (Bonanza Mine at Sonora). Julihn and Horton (1940) identified the Bonanza as probably the most famous pocket mine in the United States. Mining of these individual deposits has continued sporadically since that time. Because of the small size of individual deposits in the Pocket Belt, they have not been amenable to large-scale mining techniques. Rather, their exploitation has been the domain of individual miners or very small operators. Small-scale mining probably still continues in some of the underground mines.

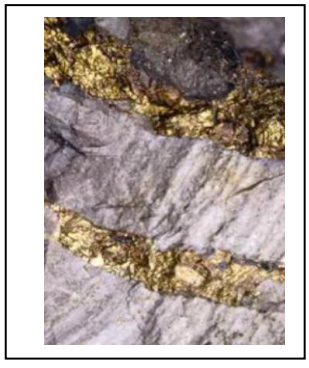


LOCAL GEOLOGY The Pocket Belt consists of individual gold deposits situated between the Mother Lode Belt and the East Belt of gold mineralization. They are concentrated mainly at Bald Mountain near Sonora and at Jackass Hill near Tuttletown. Those at Bald Mountain are largely within metamorphic rocks of the Calaveras Complex, while those at Jackass Hill are within metavolcanic and metasedimentary rocks of what has been mapped as the Sullivan Creek Terrane.

The Pocket Belt is characterized by widely separated, very narrow seams of quartz and calcite that swell in places to contain rich pockets of coarse gold. The deposits also contain telluride minerals including petzite, sylvanite, and calaverite.

These deposits are noted for their small but spectacularly rich concentrations of gold, some of which is beautifully crystalline. The seams do not persist individually, but appear to be related to very minor, almost insignificant fissuring that was later invaded by rich gold-bearing solutions.

Rich seams may persist for only a few feet along seams that are inches in width. In some cases, the seams are associated with igneous dikes, such as at the Bonanza Mine. Some of these seams have been superimposed on older, less-rich gold-bearing mineralized zones typical of the Mother Lode Belt and East Belt. Based on reported observations, it appears that structural attitudes of the seams do not show a regional consistency, although additional study is needed to confirm this observation.

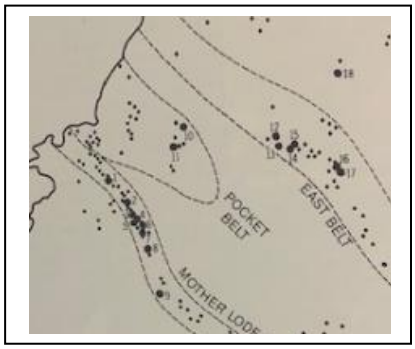


Because the veins of quartz and calcite do not appear to be disturbed by later fissures and seams, these deposits probably formed very late in the regional sequence of gold mineralization. Also, the veins in the belt may represent a very localized source of enrichment compared to the areas of less-rich quartz-veining to the north and south of this area.

For more information read the full report at the source: USGS https://mrdata.usgs.gov/mrds/show-mrds.php?dep_id=10310669

1889 CA Journal of Mining - Pocket Mining on Bald Mountain

"*Pocket*" *Mining* consists in the exploitation of that class of quartz lodes in which the available ore occurs mostly in the form of rich bunches or "pockets." While these bunches are apt to be much scattered, occurring only at long intervals, this is sometimes a lucrative branch of mining. Its grand chances prove very alluring to the more adventurous class of prospectors. While rich pockets have been encountered in the quartz lodes in all parts of the State, and throughout the entire history of mining, Tuolumne County has been most distinguished for deposits of this kind. From what is known as the Bonanza Claim, near the town of Sonora, there was claimed to have been taken, during the four years preceding 1882, nearly $1,000,000, all realized at small expense—not more than half a dozen laborers were employed. Since that time the claim has yielded, it is stated, with equal net profit, about as much more. Since 1852 this neighborhood has been noted for finds of this character. During that year a party of Mexicans took out on Bald Mountain, two miles north of Sonora, as much gold as would load a mule, but exactly how much was never known. Near Littletown, a few miles south of Sonora, two miners recently came upon a nest of these "chispas," and have since gathered over $100,000 worth, with more in prospect. From a claim at Don Pedro's



1890 CA Journal of Mining Pocket Mining on Bald Mountain

POCKET MINES.

This county, in the immediate vicinity of Sonora—that is to say, within a radius of several miles—is noted for the great number of "pockets" of gold that have been taken out. Bald Mountain, and in the vicinity of the Bonanza Mine, have produced a greater number of pockets, varying in value from a few hundred dollars to many thousands, than any other mining section in the world. "Jackass Hill," about four miles northwest in an air line from Sonora, is also a noted pocket district. The chief of all the noted veins of this character is undoubtedly the Bonanza. In the neighborhood of $2,000,000 have been taken from this mine, and the judgment of experienced miners in this branch of mining is, I am informed, that all "signs" indicate further successes in it in the near future. The mine has been so well described in former reports that I will simply give an outline of the work to date. The fissure is twelve feet in width, and contains three veins of quartz; the foot wall vein is about four inches in width, the hanging wall vein about the same width, and the middle vein averages thirteen inches. The hanging wall vein is separated from the middle vein by about eight feet of siliceous limestone, while the foot wall vein is separated from it by two and one half feet of the same matter. The veins are parallel to one another, and dip to the west 30 degrees from the horizon, and the course of the vein is north 30 degrees east. The incline from the old works was run on the vein with an average pitch of 21 degrees, and has been stoped for five hundred and eighty feet in length. The tunnel was driven in from the surface five hundred feet, cutting the vein at about two hundred and ninety feet on the incline. The new shaft has been sunk at a pitch of about 20 degrees one hundred and eighty feet in depth, which will strike a line through the incline one hundred and fifty-six feet from where the stopes terminate. This gives a vertical depth of two hundred and sixty feet from the top of the old incline shaft. It is the opinion of all in this branch of mining that in stoping this one hundred and fifty-six feet large returns will reward the lessees, which they undoubtedly deserve. During the period of fifteen months ending July, 1890, this property has produced in bullion $198,764.

There are a great many pocket mines being worked on Bald Mountain, the principal ones being the Ford, the Austrian, the Wilson, the Garrett, and the Sugarman. All have had varying results. Mr. John Neil, Superintendent of the Sugarman Mine, showed me several fine specimens of gold and tellurium taken from it, and he informed me that all indications now point to the speedy uncovering of a bonanza. The incline shaft of Captain Colby's mine has just been completed to a depth of one hundred and twenty feet, and work is being vigorously pushed. The Stockton Mine, about one and a half miles east of Sonora, is also being actively worked; and several handsome specimens were shown me at the works, having just been taken out, the owners at the time being "in bonanza." In the vicinity of Jackass Hill many of the mines are in active operation, and while visiting there the Alice was "in gold." The mine is opened by a tunnel about two hundred feet in length, and near its face the ledge showed from two to four inches in width, and about six feet in length of it showed more gold than quartz. The mines in active operation here are the Carrington, the Coughlin, the Rice & Lyons, the Bluett & McCoddle, the Thompson's Hill, the John Moore shaft, the Atlas, and the John Ore. The general course of all these veins is northwest and southeast, at an average altitude of one thousand seven hundred and twenty-five feet above sea level. The country rock is slate, generally highly mineralized.

1896 Report of the State Mineralogist p354

found. [illegible], of Cleveland, owner.

Page Mine (Quartz).—It is 1 mile N. of Sonora, on the west side of Bald Mountain. It is leased for a term of years by the Bald Mountain Tunnel Company, of Sonora. The rocks are partly metamorphic, mica schist, slate, quartzite, etc., and partly eruptive, diorite-porphyrite, and felsitic dikes. These latter accompany the vein. The fissure varies from a seam to 3 ft. in width. Aside from the pockets the quartz is absolutely barren. As usual in "pocket mines," the gold is found where seams intersect the main vein.

The most valuable deposits have been found where a nearly horizontal seam cuts the fissure at points where a nearly vertical seam strikes across the vein. In nearly all the pocket mines in this portion of California, the gold occurs at points where three planes intersect, viz.: the main crevice; a seam having a strike parallel or nearly so by cutting the vein in dip; and a crossing seam striking at a high angle across the main fissure, though having a greatly varying dip. The most productive are those which approach the vertical. It is true there are exceptions, but the conditions stated constitute the rule. On the other hand these favorable conditions obtain at times and no gold is discovered. The dike rocks also appear to influence the deposition of the gold. In several cases in the Page Mine gold was discovered attached to the felsitic dike rock.

Other pocket mines on Bald Mountain having characteristics similar to the Page Mine are the Ford, Garrett, Sugarman, and Wilson. Prospectors are always traversing this section of the country in search of pocket mines, which are usually discovered by prospecting the surface soil.

1901 Engineering and Mining Journal

[illegible]

Tuolumne County.

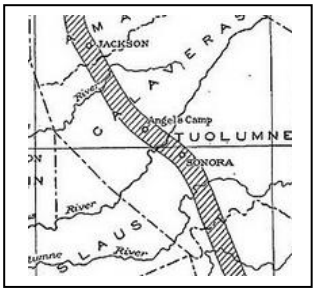
(From Our Special Correspondent.)

Bald Mountain.—A $1,500 pocket has been uncovered on this property on Bald Mountain near Sonora, and more is said to be in sight. Over $6,000 was taken out in gold during December.

HILTON AND MCPHERSON HISTORICAL GEOLOGY

Gold is found all over the earth. The gold content of the earth's crust is in the range of 0.001 to 0.006 parts per million. However, gold needs to be concentrated in order for it to be worth mining. Scientists discovered the majority of gold is concentrated by hydro-thermal events, which pushed up the gold from the earth depths usually through ***fault zones****. The Motherlode is a giant fault zone.*

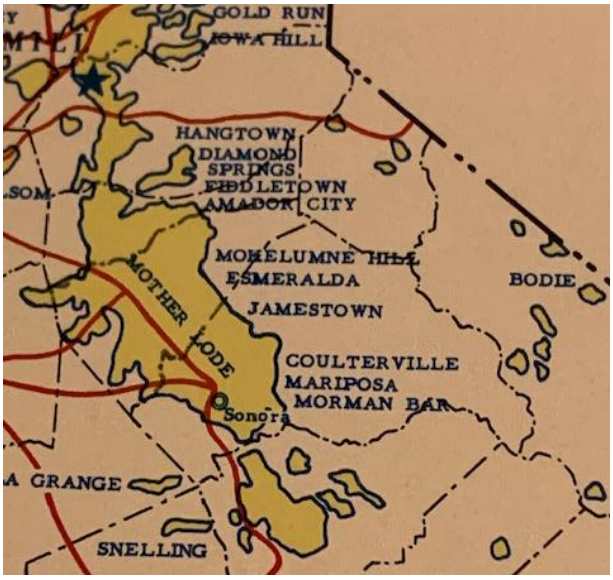
"The largest gold-mining district in California is the famous Mother Lode of the. Found in the early 1850s, the lode is a zone one to four miles wide and running 120 miles northwest–southeast from El Dorado County in the north, through Amador, Calaveras, and Tuolumne counties, to Mariposa County in the south. The California gold rush started with the discovery of placer gold in sands and gravels of streambeds, where the gold had eroded from hard-rock vein deposits. Placer miners followed the gold-bearing sands upstream to discover the source in the bedrock. This source was the "mother" of the gold in the river and so was dubbed the "mother lode". Source Wiki

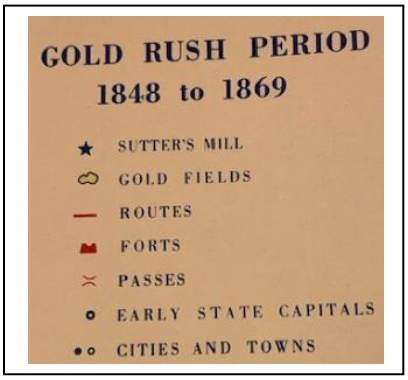


There is no other place on earth like the Motherlode fault vein in California. It is believe to be the longest and richest gold bearing vein in the world.

The Hilton and McPherson is located in the Pacific Mountain System specifically the "Cascade-Sierra Mountains Sierra Nevada" and is part of the Motherlode system. (Source: USGS)

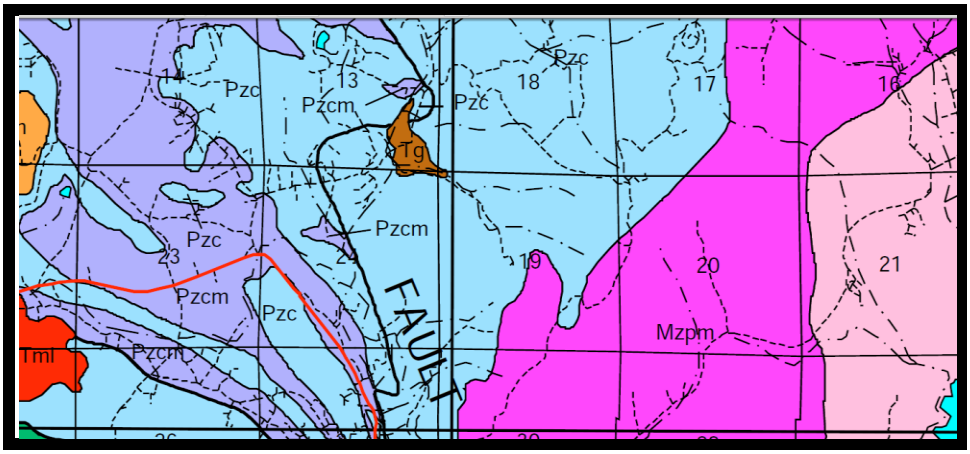
The Hilton and McPherson Gold Mine is located within the main gold fields of the Motherlode:





The Motherlode's gold-bearing lodes are emplaced in Carboniferous and Jurassic metamorphic rocks intruded by small bodies of Jurassic and Cretaceous igneous rocks. Mineralization occurred probably in Late Cretaceous time. (Source: USGS)

In the map below the Hilton and McPherson Gold Mine is located in the top left portion of section 19. ***The small lines are fault lines*** *(often good for gold) and there is a contact zone maybe even two contact zones where the geology look like it changes, also usually good for gold. The government geologists have determined that the Hilton and McPherson gold mine is in the Pzc zone, however, no core drilling was done, so the map is only a scientific estimation. Unless you dig down deep, you really never know what is underground, one can only estimate. A geologist should conduct new studies on the area.*

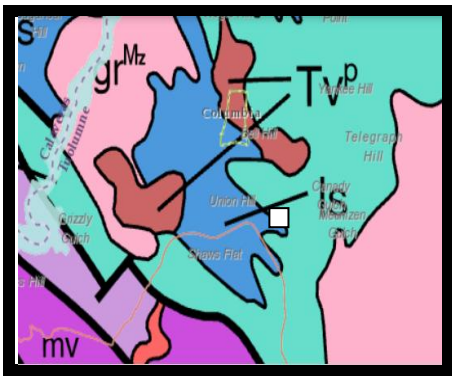


Tg = Pliocene **Pzc =** Paleozoic marine rocks, undivided Mzpm = Paleozoic marine rocks, undivided, unit 4 (Western Sierra Nevada)

The California Department of Conservation and the USGS have designated the area that the Hilton and McPherson mine is in as **Pzc** = Marine Sedimentary and Metasedimentary Rocks, with its age being "Paleozoic". The general description they use is:

> "Undivided Paleozoic metasedimentary rocks, including slate, sandstone, shale, chert, conglomerate, limestone, dolomite, marble, phylite, schist, horfels and quartzite. "

https://maps.conservation.ca.gov/cgs/gmc/



The map to the left is the most current CA GEO MAP. There are four different geological areas with the Hilton and McPherson Mine located in the middle. When two different geological areas meet that is considered a contact zone. There are several "contact zones" and faults in the area, which have been gold bearing. There are many lode gold mines in the area. Gulches are often faults. The Hilton and McPherson Gold Mine is located in Sawmill Flat Gulch, but is also nearby Canady Gulch and Meenizen Gulch . So besides the placer gold, there is more likely than not lode gold. as well.

Rocks exposed in the Bald Mountain area consist of slate, graphitic schist, quartz mica schist, and marble of the Late Paleozoic Calaveras Complex (Figure 3). These are intruded by a large granodiorite pluton exposed over most of Bald Mountain and by numerous dikes of intermediate composition. The gold-bearing quartz veins and dikes present in the Bald Mountain lode gold district occupy northerly trending fault and fracture openings in the country rock. Gold mineralization typically occurs where the northerly trending quartz veins intersect easterly trending porphyrytic dikes.

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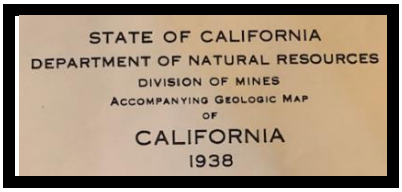
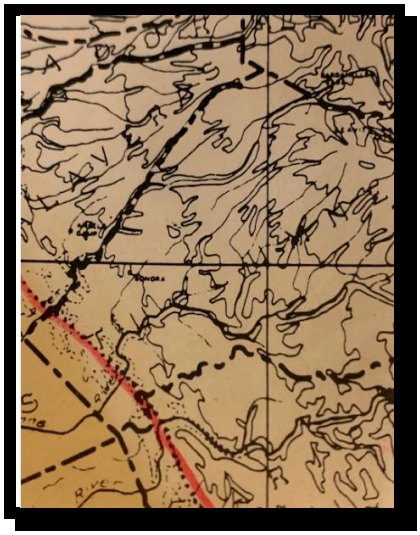
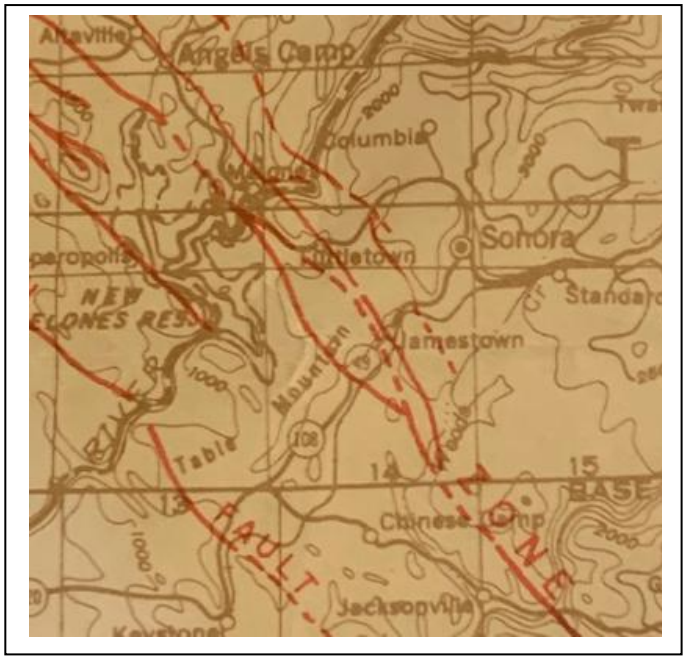






FAULTS SYSTEMS Ref: http://gsabulletin.gsapubs.org/content/71/4/483.abstract

A large fault system, here named the Foothills fault system, is the dominant structural feature of the western Sierra Nevada. The steeply dipping to vertical component faults trend northwestward through an area about 200 miles long and 30 miles wide north of 37°30′ north latitude. The faulted Paleozoic and Mesozoic rocks are overlapped by unfaulted younger rocks, and the total extent of the fault system is not known. It is probably not limited to the western Sierra Nevada.

Faults are marked by belts as much as 4 miles wide of cataclastically deformed and recrystallized rocks and by truncated folds. Along one fault, Upper Jurassic rocks are juxtaposed against Paleozoic rocks for at least 100 miles. The direction of fault movement has not been determined. Net displacement on some of the component faults exceeds 3000 feet and may be measurable in miles. Major faults cut beds of Late Jurassic age and are in turn cut by plutonic rocks of probable Late Jurassic and Middle Cretaceous age. Faults that controlled deposition of quartz veins and gold ore bodies of the Mother Lode belt are apparently younger and structurally less important features superimposed on one of the fault zones of the large system.

U. S. GEOLOGICAL SURVEY, MENLO PARK, CALIFORNIA, PUBLICATION AUTHORIZED BY THE DIRECTOR, U. S. GEOLOGICAL SURVEY - Received December 23, 1958.

GEOLOGY

The Bald Mountain/Browns Flat gold mining district occupies land in the south central part of a northwest trending belt of metamorphic rocks exposed along the western slope of the Sierra Nevada. Rock formations in the metamorphic belt are composed of thick accumulations of Paleozoic and/or Mesozoic marine sedimentary and volcanic deposits of various lithologies that have been deformed, intruded, and metamorphosed. The rocks have been isoclinally folded on a regional scale and faulted to such an extent that stratigraphic thicknesses rarely can be accurately measured. Bedding, foliation, and major structural features throughout the metamorphic belt normally trend northwest and dip steeply to the east. Discussions on the geology and geologic history of the Sierra Nevada metamorphic belt are presented in Stewart and others (1977), Howell and McDougal (1978), Ernst (1981), and Saleeby (1982).

Rocks exposed in the Bald Mountain area consist of slate, graphitic schist, quartz mica schist, and marble of the Late Paleozoic Calaveras Complex (Figure 3). These are intruded by a large granodiorite pluton exposed over most of Bald Mountain and by numerous dikes of intermediate composition. The gold-bearing quartz veins and dikes present in the Bald Mountain lode gold district occupy northerly trending fault and fracture openings in the country rock. Gold mineralization typically occurs where the northerly trending quartz veins intersect easterly trending porphyrytic dikes.

Source: DMG OFR 86-12

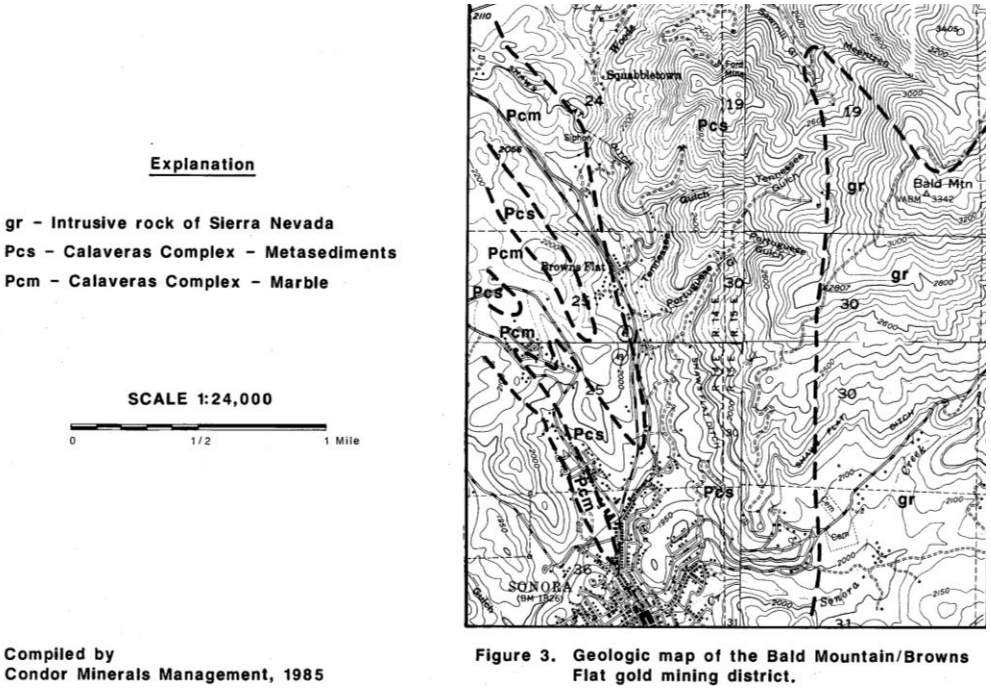


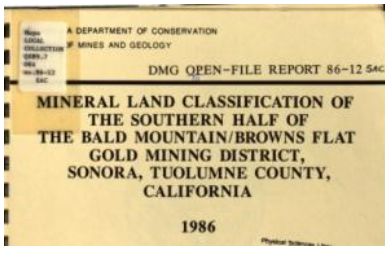
Figure 3. Geologic map of the Bald Mountain/Browns Flat gold mining district.

Explanation:

- gr – Intrusive Rocks of Sierra Nevada
- Pcs – Calaveras Complex – Metasediments
- PCM – Calaveras Complex - Marble

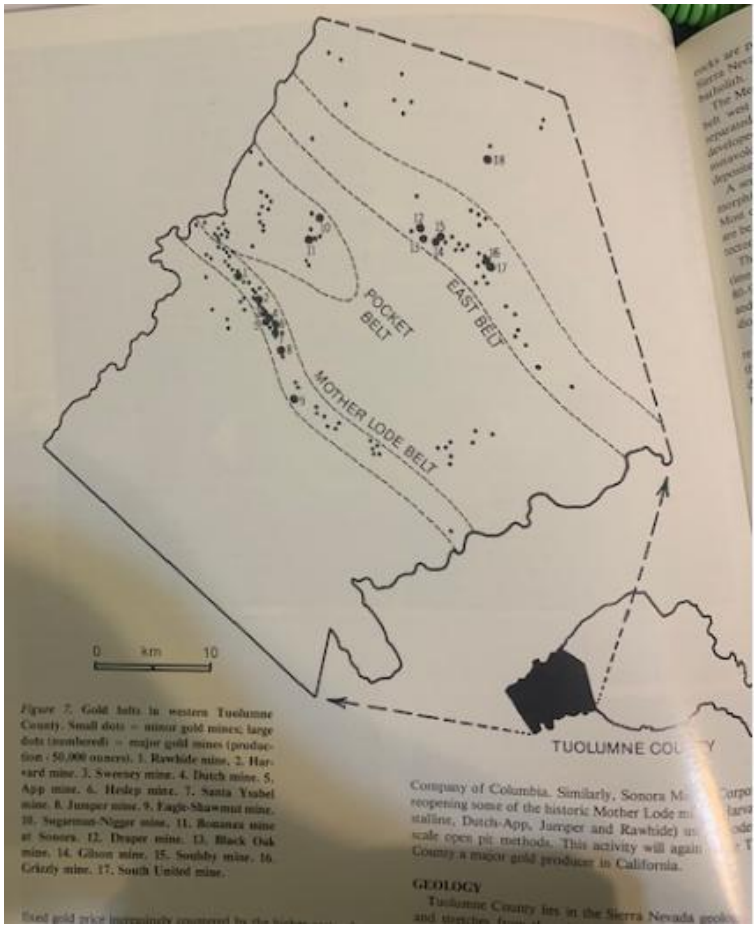
Source: DMG OFR 86-12 ->

Map data compiled by: Condor Minerals Management, 1985



Gold Bearing Fissures and Pockets of Gold

"Mother lode Belt and spans several counties and approx. 120 miles, bounded by Mariposa county to the south and Placer county to the north. The East Belt mines are well known for producing abundant high grade pockets. The pockets apparently were formed by rich gold solution ascending in fissures that were opened along the walls and in the dike itself by slight movements subsequent to its cooling." (Julihn and Horton 1940:62)" See Hilton And McPherson Pocket Belt for more information on pockets of gold.



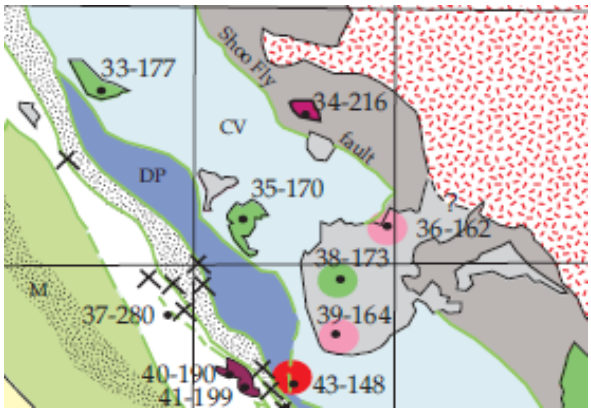
LODE GOLD

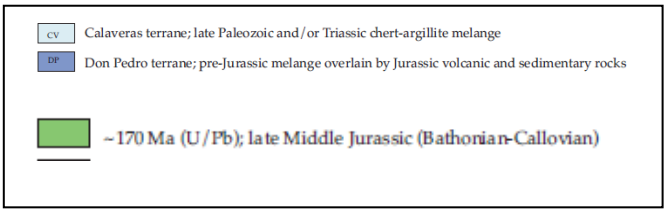
The hard rock lode gold in the area has been found in : Host Rock Metamorphic Rock Schist and Mica Schist. (Source USGS) The USGS system does not cover the ancient river in the area. For more on the ancient river see the Hilton and McPherson Mine Placer Gold section.

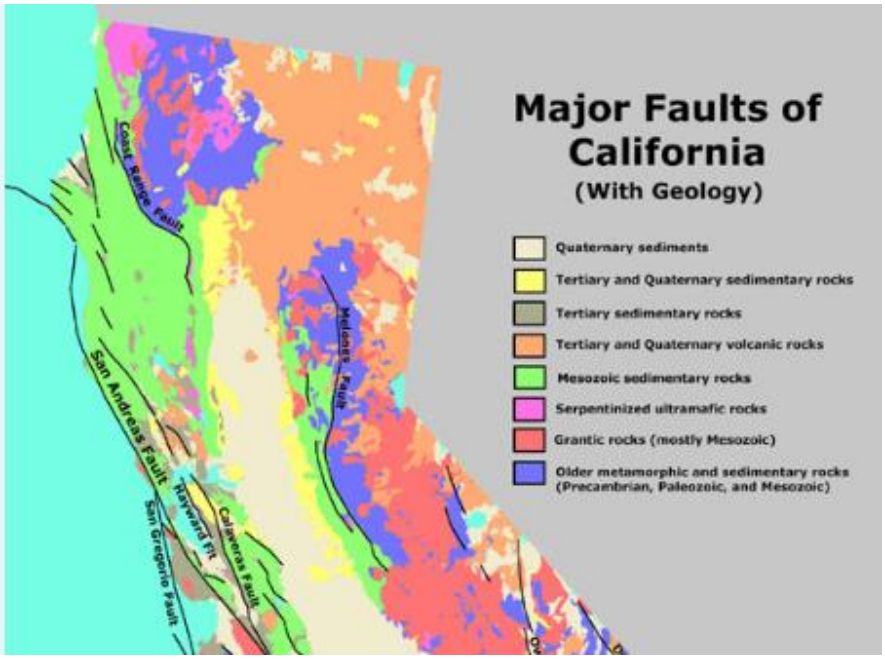
MAP SHOWING PLUTONS AND ACCRETED TERRANES OF THE SIERRA NEVADA, CALIFORNIA, WITH A TABULATION OF U/Pb ISOTOPIC AGES

Compiled by William P. Irwin and Joseph L. Wooden

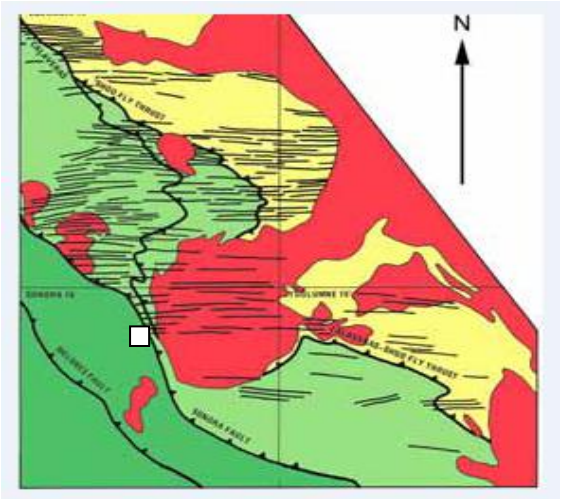
2001







THE SONORA DIKE SWARM



Map of the Sonora Dike Swarm 157 to 159 million years ago. The little white box indicates the approximate location of the Hilton and McPherson Gold Mine.

Merguerian, Charles, 1986b, Geology of the Sonora dike swarm, Sierra Nevada foothills, California.

The Sonora dike swarm, an areally extensive (>1500 km^2) consanguineous suite of dikes of pargasitic amphibole-, plagioclase-, and augite-phyric andesite, lamprophyre, and basalt intrudes the foothills metamorphic belt of the central Sierra Nevada near lat. 38° N in California. The swarm is subvertical and trends east-west across two polyphase deformed Paleozoic to Mesozoic tectonostratigraphic units. These units, the Shoo Fly and Calaveras Complexes, also form the basement to a middle Jurassic calc-alkaline continental arc that is partly obscured on the east by younger granitoids of the Sierra Nevada batholith. Geochronologic data of Sharp (1980) indicates that the dikes are also middle Jurassic (157-159 Ma), which suggests that they may be petrogenetically related to the arc sequence. Field, petrographic, and geochemical studies indicate that the Sonora dikes are derived from calc-alkaline magmas that probably formed during subduction of oceanic crust beneath the continental arc.

The dikes provide an important structural marker in the Shoo Fly and Calaveras Complexes. The dikes truncate and intrude along an east- west-trending spaced schistosity in the metamorphic belt that formed parallel to the axial surfaces of folds of the Calveras-Shoo Fly thrust. Clearly, the juxtaposition of the Shoo Fly and Calaveras Complexes and the east-west folds are pre-middle Jurassic events. Dilation of the east-west-trending metamorphic fabric in the marginal arc basement preceded and probably was coeval with intrusion of the dike swarm. Such north-south extension was probably enhanced by the nearly orthogonal relationship between the trend of the arc (NNW-SSE) and the east-west-trending spaced schistosity of the Shoo Fly and Calaveras.

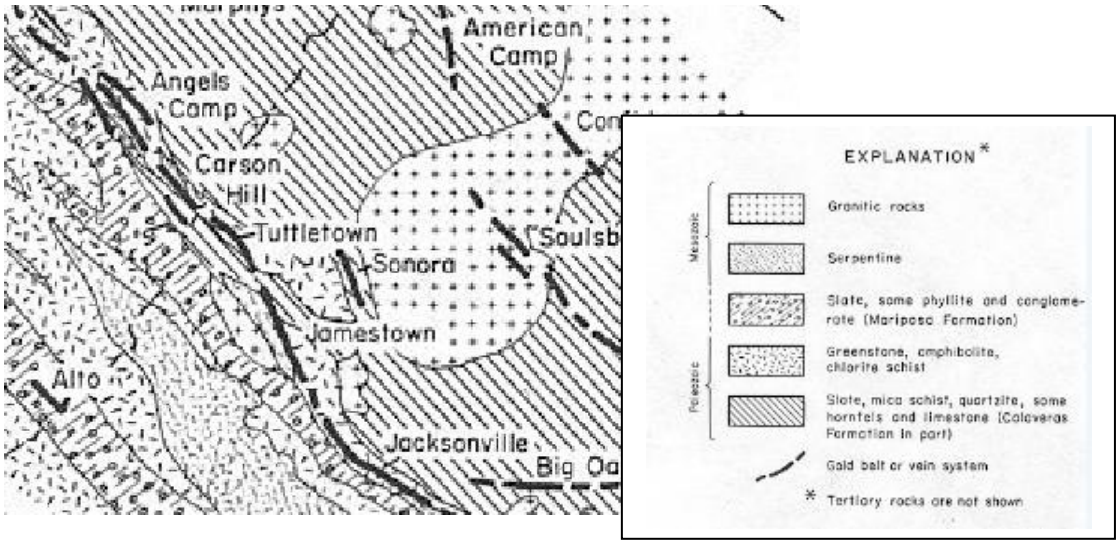
Mafic dikes of the Sonora dike swarm. The Shoo Fly and Calaveras complexes and the Standard pluton are multiply-intruded by a swarm of mafic dikes near lat 38°N. Over 1,000 dikes ranging from basalt to andesite have been mapped in the Shoo Fly and Calaveras by C. Merguerian and R.A. Schweickert (unpublished data). In the Shoo Fly, the dikes are sub-parallel to east-west-trending axial surface traces of folds that deform the Calaveras-Shoo Fly thrust.

The dikes occur as solitary sheets and dikelets 3 - 5 cm thick and as dense 25 m-wide zones of profuse multiple injections with anastomosing, chilled margins. Individual dikes within these zones have an average thickness of 1 m and offshoots are common. Three textural types have been recognized:

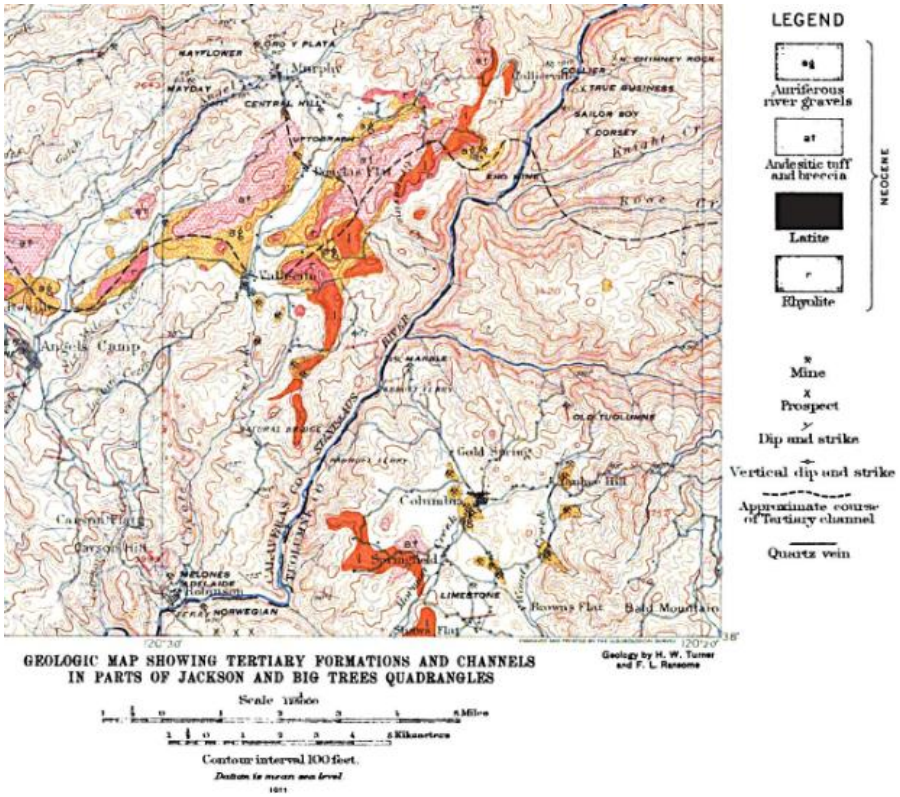
1. Light-gray to dark-gray spessartite and vogesite lamprophyres with non-oriented subhedral to euhedral phenocrysts of pargasitic amphibole, light-green amphibole, augite, and plagioclase up to 4 mm long. The dikes are generally less than 0.4 m thick.
2. Gray-green to gray-black, dense, dominantly aphyric basalt and andesite dikes which locally possess augite and brown amphibole microphenocrysts and have microgabbro and microdiorite cores when thicknesses exceed 2 m.
3. Dark-gray mottled medium- to coarse-grained, labradorite-phyric pyroxene-free basalt and andesite dikes. The phenocrysts are euhedral to subhedral (up to 4 mm) and the dikes are typically thicker than (1) or (2).

Cross-cutting relationships and chilled margin observations indicate that the dominantly aphyric dikes (2.), which numerically comprise over 35% of the mafic dike swarm, are of median relative age and thickness. They always cross-cut the thicker plagioclase-rich dikes (3.) and are in turn cut by thinner lamprophyre dikes (1.). The geology, geochemistry, and tectonic significance of the Sonora mafic dike swarm is treated elsewhere (Merguerian, 1985). A 157-159 m.y. K-Ar hornblende age for the dikes has been reported by Sharp (1980).

Motherlode Map of Major Rock Units and Lode Gold Units Central Sierra Nevada



1911 CA STATE GEOLOGY MAP



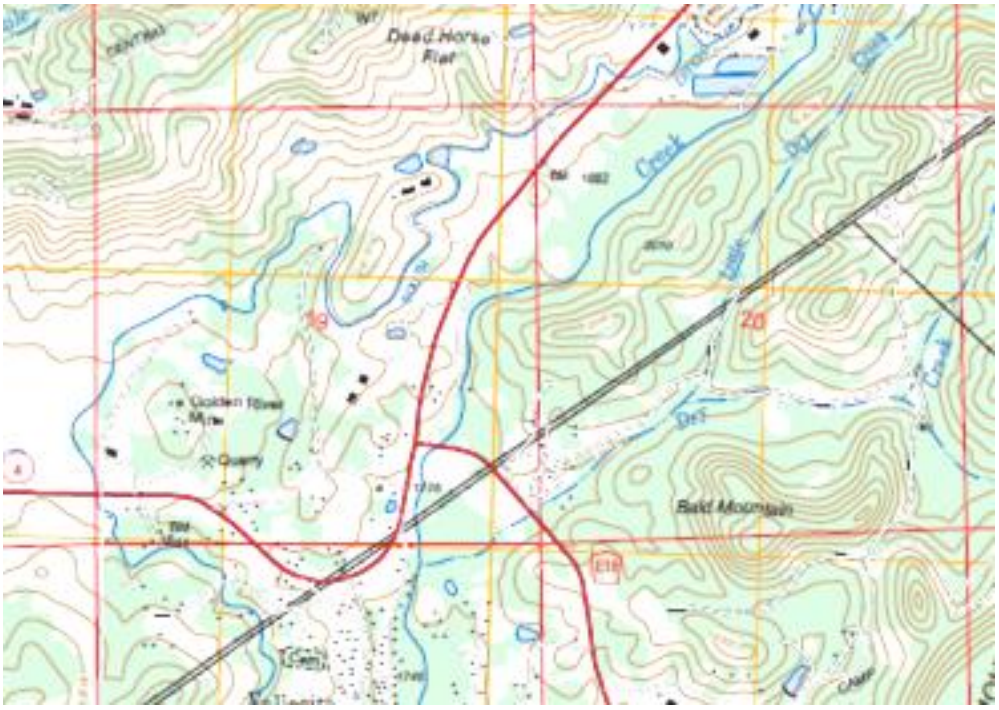
GEOLOGIC MAP SHOWING TERTIARY FORMATIONS AND CHANNELS IN PARTS OF JACKSON AND BIG TREES QUADRANGLES

Scale 1/62500

Contour interval 100 feet.

Datum is mean sea level

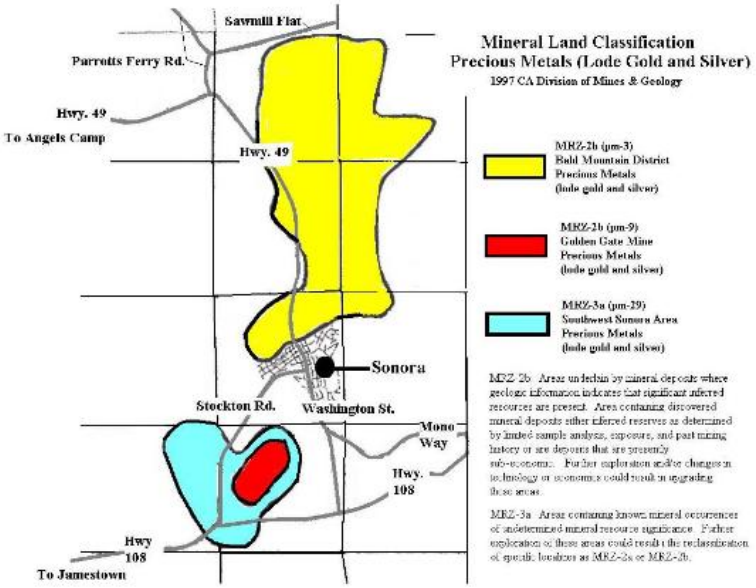
USDA MAP 1983 SECTION 19 & 20:



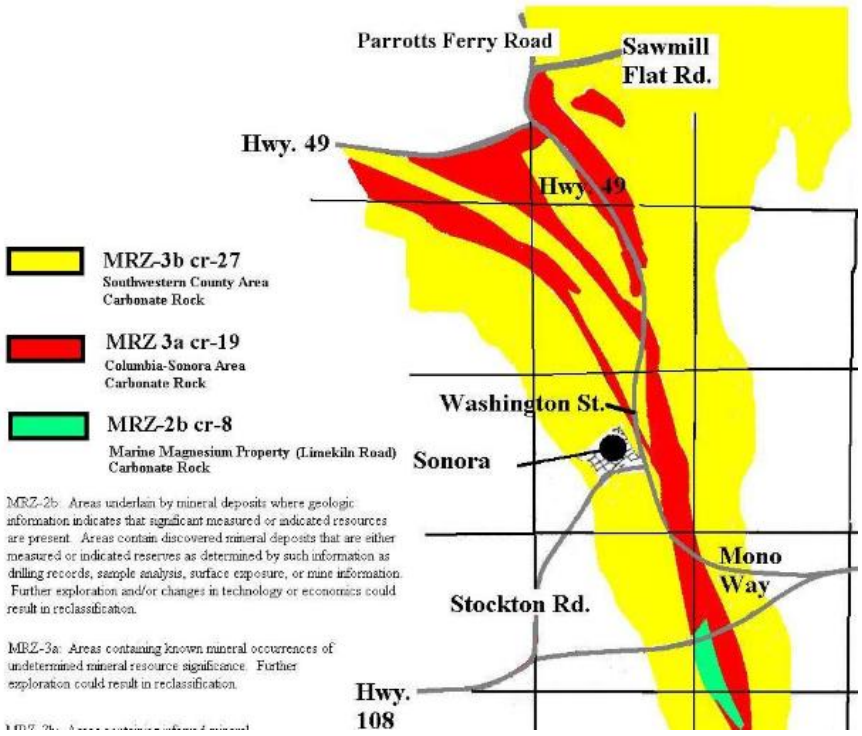
MAPS FROM TUOLUMNE COUNTY'S GENERAL PLAN

https://sonoraca.com/wp-content/uploads/2017/03/apdx-sonora-general-plan-2020.pdf

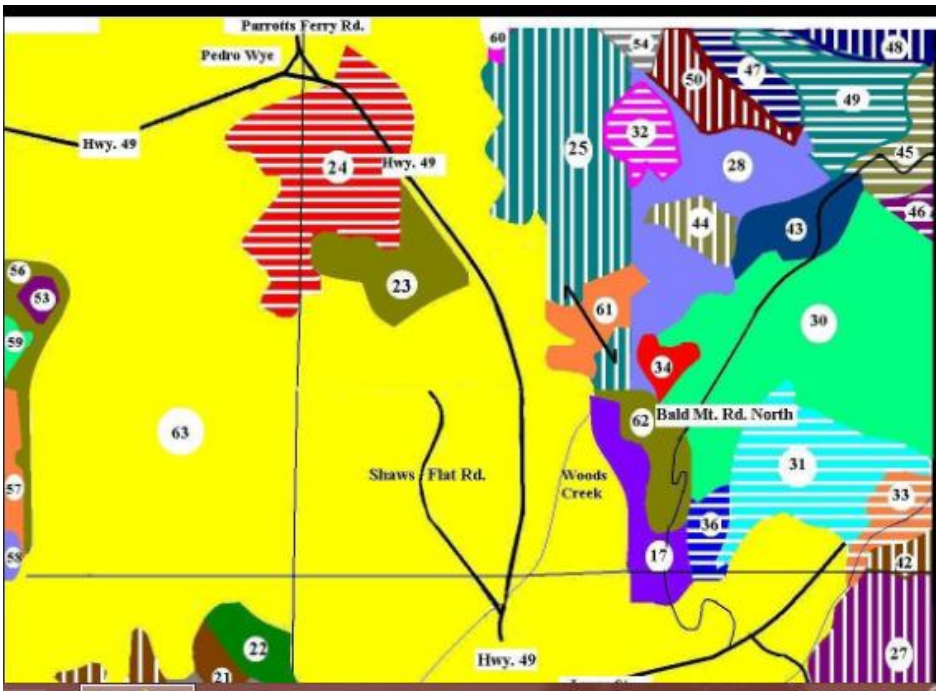
Figure 18: Areas of State-Designated Significant Mineral Resources



Carbonated Rocks:



SOIL MAP:



2011 Map Showing the 0.706 Line: Source: https://rallen.berkeley.edu/pub/2011obrebski/ObrebskiEtAlDNA10GJI2011.pdf

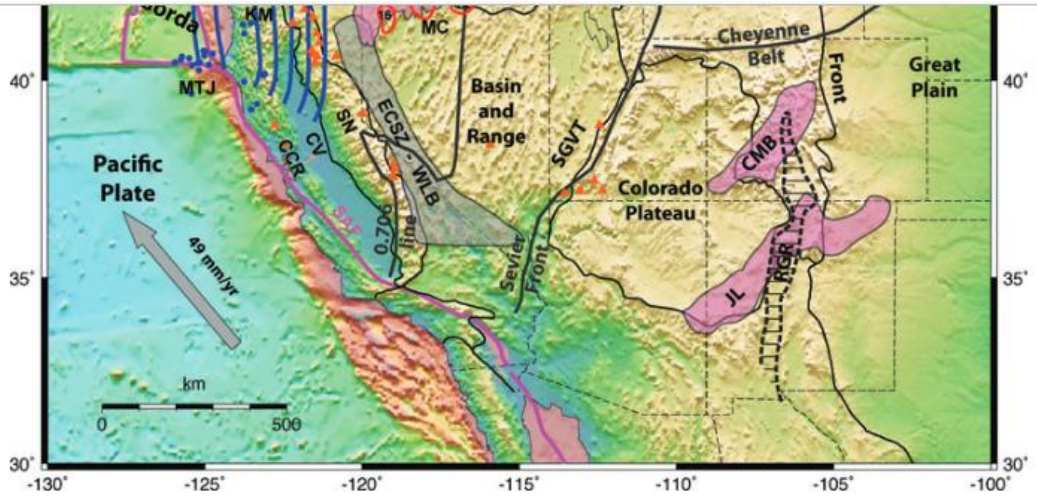


Figure 1. Geological-tectonic features of the western United States overlaid on topography. North from the Mendocino Triple Junction (MTJ), the Gorda and Juan de Fuca (JdF) plates are subducting beneath the North American plate with an oblique convergence rate of (on average) 41 mm yr^{-1}. The estimated depth of the top of subducting slab is shown with blue contours labelled in km (McCrory *et al.* 2006). The location of all $M > 4$ earthquakes with depth ≥35 km since 1970 are shown as blue dots. Volcanoes are shown as orange triangles. The Yellowstone Hotspot Track exhibits a series of time-progressive calderas (red outline) from McDermitt Caldera (MC) to the currently active Yellowstone Caldera (YC). The track is approximately parallel to the absolute plate motion of North America, which is estimated to be 14–26 mm yr^{-1} to the southwest. Numbers indicate the age of the calderas (in Ma). The Columbia River Flood Basalt Province was a massive outpouring of basalt from ~16.6 to ~15.0 Ma and is shown in pink. The Laramide Colorado Mineral Belt (CMB) and late Miocene to present Jemez Lineament (JL) are also shown is pink. The grey lines show major structural and compositional boundaries. The Cheyenne Belt separates Archean basement to the north from Proterozoic basement to the south. The 0.706 line is the estimated limit between autochthonous terranes to the east and accreted intraoceanic arcs based on Sr isotopic ratios. The Sevier Front is also close to the miogeocline hingeline. The black striped area is the slightly extended Rio Grande Rift. Other acronyms: BFZ, Blanco Fracture Zone; CCR, California Coastal Range; CR, Cascadia Range; CV, Central Valley; ECSZ-WLB, East California Shear Zone-Walker Lane Belt; HLP, High Lava Plain; KM, Klamath Mountains; SAF, San Andreas Fault; SGVT, Saint George Volcanic Trend; SN, Sierra Nevada; YSRP, Yellowstone-Snake River Plain.

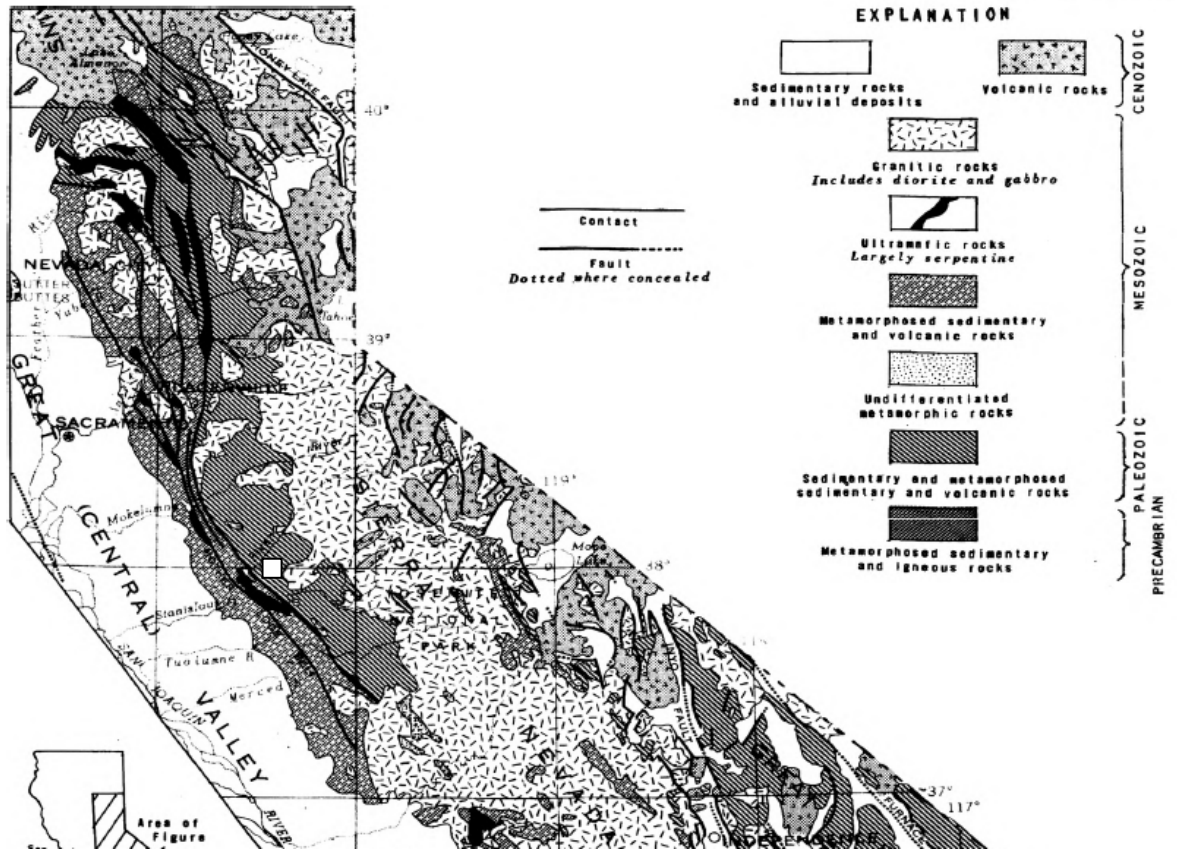
SIERRA NEVADA MOUNTAINS

Source: 1968 By Bateman Structure and History of the Sierra Nevada

The Sierra Nevada is a huge block of the earth's crust that has broken free on the east and has been tilted westward. It is composed chiefly of Mesozoic granitic rocks and Paleozoic and Mesozoic metamorphosed sedimentary and volcanic rocks. The granitic rocks constitute the Sierra Nevada batholith, which is part of a more or less continuous belt of plutonic rocks that extends northward from Baja California through the Sierra Nevada at a small angle to the axis of the range and into western Nevada. The batholith is localized in the axial region of a complexly faulted synclinorium. It is composed chiefly of rocks that range in composition from quartz diorite to alaskite but includes scattered smaller and darker masses of mafic igneous rock and remnants of metamorphic rocks. The granitic rocks are in discrete plutons that range in outcrop area from less than a square mile to 500 square miles or more. Isotopic dates indicate three widely separated episodes of magmatism at 183 to 210 m.y. ago, 124 to 136 m.y. ago, and 80 to 90 m.y. ago. Other magmatic episodes doubtless have occurred.

During and following the emplacement of the granitic rocks, the Sierra Nevada region was uplifted and eroded to great depths. Following a period of virtual standstill during most of the Eocene and the Oligocene, the range began to tilt westward, and during the Pliocene the east side was uplifted by tilting to its present great height. Faulting along the east side of the range generally lagged behind westward tilting. As a result of uplift, the rivers that drain the west slope were deeply incised. During the Pleistocene, the range was repeatedly glaciated. Glaciers sharpened ridges and peaks and widened and deepened stream valleys, producing much of the spectacular scenery of the range.

The root beneath the high Sierra Nevada extends to a depth of more than 50 km and probably originated during the Mesozoic when the synclinorium was formed and the granitic rocks emplaced. Granitic magmas are pictured to have formed repeatedly during the Mesozoic as a result of depression and thickening of the relatively fusible and radioactive upper crust.



Geology. Columbia lies in a preserved Tertiary valley with pre-volcanic features. It is a flat valley that is underlain chiefly by crystalline limestone and dolomite of the Calaveras Formation (Carboniferous to Permian). The limestone has numerous deep potholes and cavities, which contained enormously rich gravel. Several very large nuggets and gold masses were taken here, including one that weighed over 50 pounds and several weighing more than 300 ounces. Slow degradation of the area in pre-volcanic times tended to concentrate coarse gold in this flat basin. It is south of the main Tertiary Stanislaus River. Vertebrate fossils were found in the gravels. In the early-day mining operations, the gravels were hoisted from the potholes and washed through sluices and long toms on raised platforms.

Excerpt from: Gold Districts of California, by: W.B. Clark, California Department of Conservation, Division of Mines and Geology, Bulletin 193, 1970.

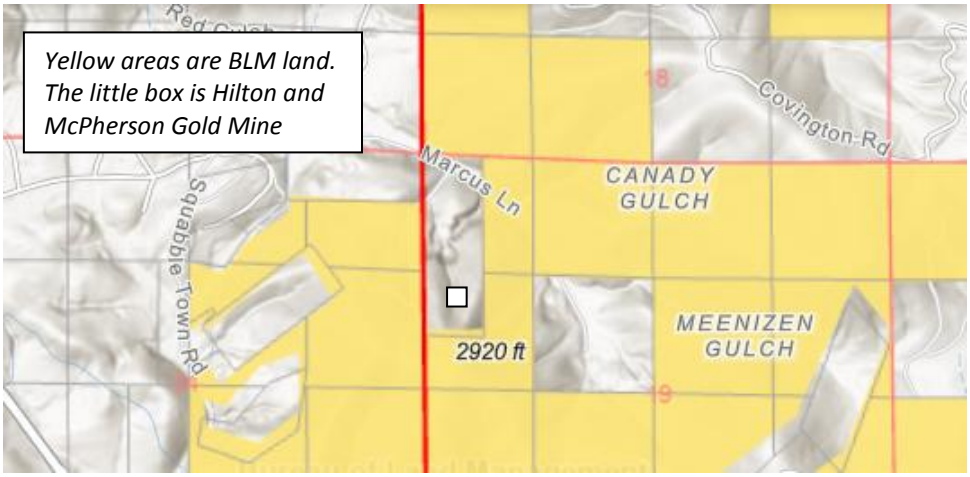
HILTON AND MCPHERSON NEARBY MINES & CLAIMS

There are many gold mines in the area of the Hilton and McPherson gold mine; all the CA numbers are or were mining claims:

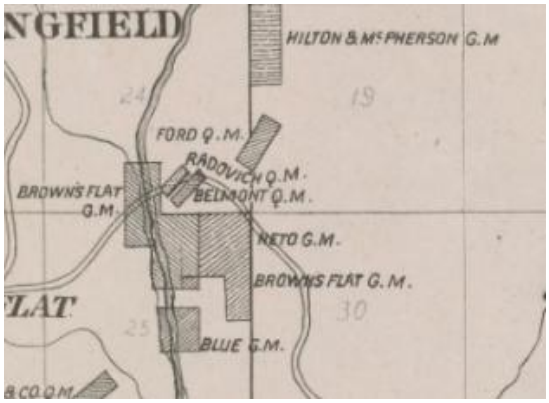
Localities in this Region

USA
California
Tuolumne County
East Belt
Columbia Mining District
Columbia
Sawmill Flat
- Barney Pocket Mine
- Douglasville placer (Douglassville)
- Eureka Plumbago Mine (Eureka Plumbago prospect)
- Good Luck claim [2]
- Hilton and McPherson placer

USA
California
Tuolumne County
East Belt
Columbia Mining District
Columbia
Sawmill Flat
- Hudson and Calhoun Mine (Ford group; Ford Mine; Fox)
- Lewis Mine
- Marcovich placer
- National occurrence
- Sievert Consolidated Mine (Sevart Consolidated; Sievert Cons; Sevart Cons)
- Wooten placer



Sawmill Flat and Brown's Flat Mines



Picture to the left is of the CACState recorded mines in **1873** in the Sawmill Flat – Brown's Flat area.

BLM CLAIMS INFORMATION:

FORD QUARTZ is a 20.66-acre active mining claim in Tuolumne, California owned by Tyler Walton, Robert C Ward Jr, and Ray Bland. They partnered in 1984 on this claim.

Ownership and use of this claim is overseen by the Bureau of Land Management's Mother Lode Field Office under the serial number CAMC151333. The last action for this claim occurred on July 14, 2020. Information on the claim was last updated on January 7, 2021.

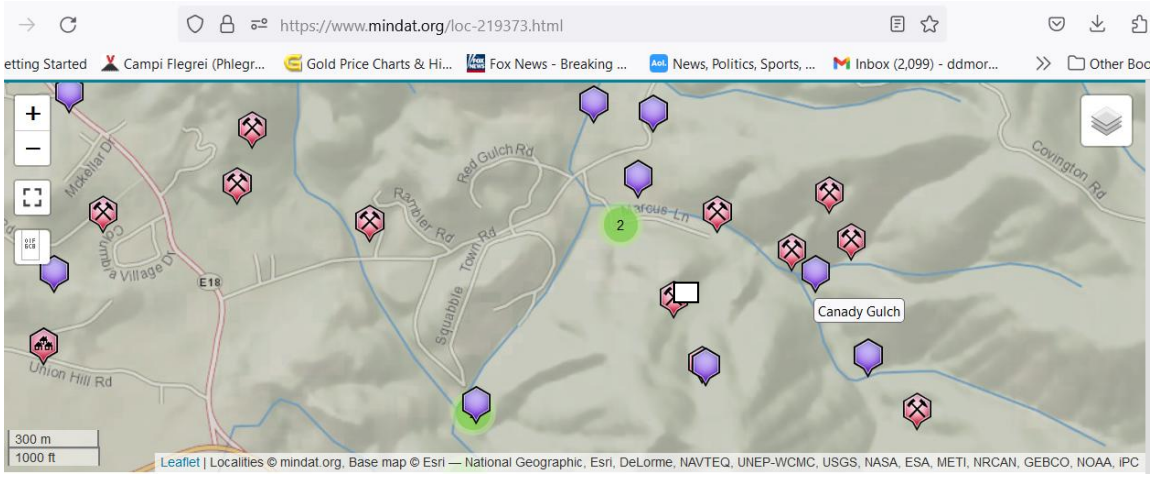
STEWART	Current	1995	Active	Claimant	20.66	Lode Claim	$165.00
FORD QUARTZ	Current	1984	Active	Claimant	20.66	Lode Claim	$165.00
FOX HUDSON	Current	1984	Active	Claimant	20.66	Lode Claim	$165.00

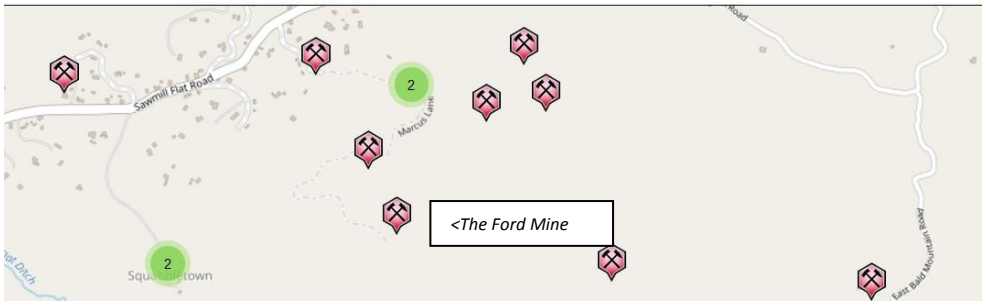
Ford Mine is at the top of the Hill and the Morris is the extension to Parrotts Ferry.

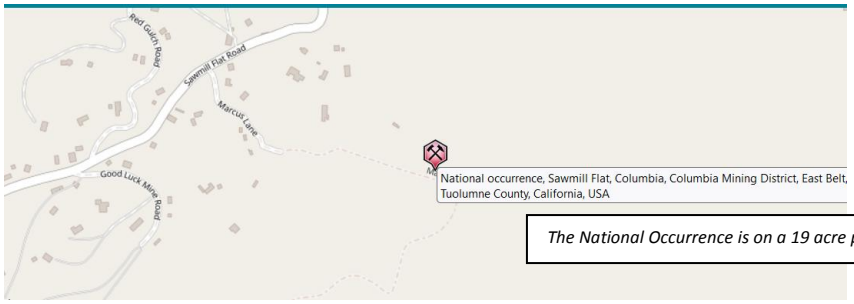
MORRIS is a 20.66-acre active mining claim in Tuolumne, California owned by Robert C Ward Jr.

SLOVITE BAR is a 20.66-acre active mining claim in Tuolumne, California owned by Krystalyn Hodson and Anthony Joseph Ramos. They only own the one mining claim since 2020 they live in Sonora. Ownership and use of this claim is overseen by the Bureau of Land Management's Mother Lode Field Office under the serial number CAMC323476. The last action for this claim occurred on August 25, 2020. Information on the claim was last updated this claim occurred on August 25, 2020. Information on the claim was last updated on October 8, 2020.

This Lode Claim falls under U.S. Code Title 30 Mineral Lands and Mining; Sections 26,28,34; Statute 017; Page 0091. An Act to Promote the Development of the Mining Resources of the United States. Also known as The General Mining Law of 1872. (1872-05-10

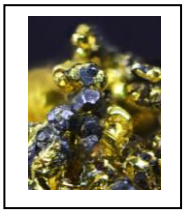






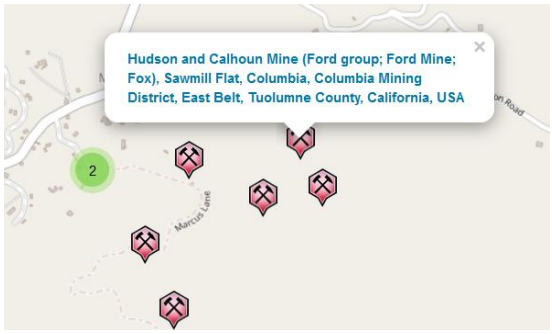
The National Occurrence is on a 19 acre parcel

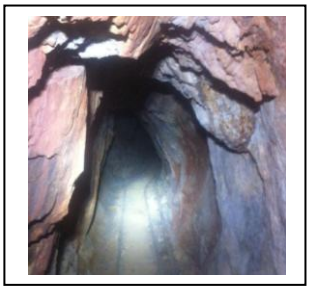
The Eureka is the next one down the road from the National. The Eureka is 100 acre parcel.



Petzite from Bald Mountain

The Lewis is on 20 acres.

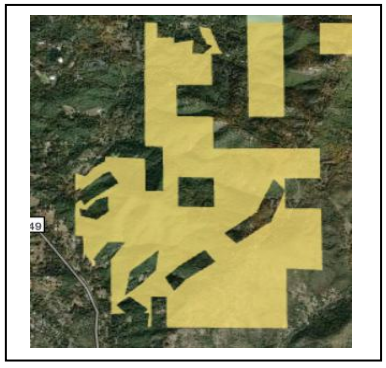




Inside the Ford Mine

This one is now on BLM land

ACCESSING BLM CLAIMS



Many of the BLM mining claims (yellow areas) in the vicinity of the Hilton and McPherson Gold Mine are not easily accessible due to not having an easement through the private land.

There may be access to some of the BLM claims off of Bald Mountain Road however, part of Bald Mountain road is a dirt road not maintained by the county and it goes to an elevation of over 3300 feet with very few roads off the main Bald Mountain road to get to their claim. This one of the reasons that the BLM mining claims can often be reclaimed (if expired) or purchased for a cheap price.

Although there are a lot of mining claims in the general area of the Hilton and McPherson Gold Mine, there is almost no mining going on. Several years back there was a miner in Jamestown mining the Ford mine by himself. I met him and he showed me the gold he had taken from the Ford mine. He died a few years ago. He has two elderly partners that apparently are still around but as far as I know they are not mining it. My guess is that would be willing to sell it.

Other than simple panning for gold, mining on BLM land requires a lot of permits and a lot of requirements to be met in order to mine. Often times claim holders are willing to sell their claims for $3k to $20k because of the BLM challenges. Mechanical equipment is not allowed on BLM land without a special permit. For more information see BLM Mining Laws

The good news is when a private land owner owns the claim(s) next to their privately owned property they can access the minerals by going underground from their private property. The SMARA laws (Surface Mining and Reclamation Act of 1975) needs to be followed (see Mining Laws to Know) but mining on private land is much easier than mining on BLM land.

USGS MINING DATA

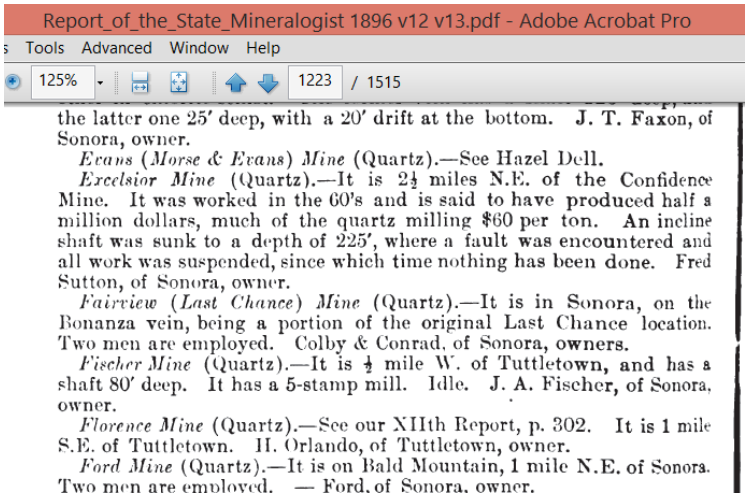
T*he Ford Mine is right next to the Hilton and McPherson. The Ford Mine includes Hudson and Calhoun Mine which is across Sawmill Gulch (with the Hilton and McPherson in the middle)* it is located at 38.01547N, 120.37750W on the topo map. The main Ford tunnel is around 1000' w/ several stopes, a raise that may lead to a upper level mine near the Ford, and a flooded winze past the raise. Note: Produced $180,000 from the Ford in 1901. The Ford group includes the Fox adit crosscuts vein 150 feet from portal with drifts 500 feet winze 240 feet on vein from adit level. On the Ford claim the crosscut adit is 2000 feet to vein. Characteristics of the ore body: **Strike:** north 10 east and **Dip:** 72 east

Sawmill Flat Mining District Mines:

- Douglasville placer (Douglassville)
- Eureka Plumbago Mine (Eureka Plumbago prospect)
- Good Luck claim [2]
- Hilton and McPherson placer
- Lewis Mine
- Marcovich placer
- National occurrence
- Sievert Consolidated Mine (Sevart Consolidated; Sievert Cons; Sevart Cons)
- Wooten placer

Also Nearby:

- Sugarman - https://www.mindat.org/loc-98235.html
- Lewis Mine - https://www.mindat.org/loc-97913.html


Report_of_the_State_Mineralogist 1896 v12 v13.pdf - Adobe Acrobat Pro

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the latter one 25′ deep, with a 20′ drift at the bottom. J. T. Faxon, of Sonora, owner.

Evans (*Morse & Evans*) *Mine* (Quartz).—See Hazel Dell.

Excelsior Mine (Quartz).—It is 2½ miles N.E. of the Confidence Mine. It was worked in the 60's and is said to have produced half a million dollars, much of the quartz milling $60 per ton. An incline shaft was sunk to a depth of 225′, where a fault was encountered and all work was suspended, since which time nothing has been done. Fred Sutton, of Sonora, owner.

Fairview (*Last Chance*) *Mine* (Quartz).—It is in Sonora, on the Bonanza vein, being a portion of the original Last Chance location. Two men are employed. Colby & Conrad, of Sonora, owners.

Fischer Mine (Quartz).—It is ½ mile W. of Tuttletown, and has a shaft 80′ deep. It has a 5-stamp mill. Idle. J. A. Fischer, of Sonora, owner.

Florence Mine (Quartz).—See our XIIth Report, p. 302. It is 1 mile S.E. of Tuttletown. H. Orlando, of Tuttletown, owner.

Ford Mine (Quartz).—It is on Bald Mountain, 1 mile N.E. of Sonora. Two men are employed. — Ford, of Sonora, owner.

Mariposa County.

(From Our Special Correspondent.)

Doss.—This mine, 2 miles south of Hornitas, has been bonded by San Francisco parties, who are pumping out the shaft, and will put a large force of men on development work.

Nevada County.

Pennsylvania Mining Company.—At the annual meeting, held in Grass Valley, on January 16th, the following directors were elected: John M. Thomas, Edward Fitzsimmons, F. Zeitler, D. E. Matteson and T. H. Wilhelm. T. H. Wilhelm was elected president, D. E. Matteson vice-president, F. J. Thomas secretary, and the Citizens' Bank treasurer. Bennett Opie was reappointed superintendent. The material for the new 10-stamp mill is on the ground.

Placer County.

Pioneer Mining Company.—The December statement is as follows: Rock crushed 430 tons; value in gold bars, $4,531; payroll, $3,343; total expenses, $4,281; net earnings, $250; average value rock, $10.54. The small output was due to the fact that the mill was stopped to make electric connections with the new machinery.

(From Our Special Correspondent.)

Crandall.—This old mine, in the North Ravine, Ophir District, is about to be reopened by an Eastern syndicate, which will begin operations very soon.

Eureka Consolidated.—At this drift mine, 3 miles north of Sunny South, on the Forest Hill Divide, the channel long sought for has been found between 400 and 500 ft. under the surface, and a quarter of a mile in the mountain. On breaking through into the cement filling the channel, pieces of driftwood were found, which is considered good evidence of the presence of the channel. Experts are of the opinion that there are two channels in this property.

Pioneer-Lynn.—The ore in these mines, one which furnish power to operate the mill and dynamos. The property has passed into the hands of Prof. N. S. Keith and associates, who will run another tunnel 1,600 ft. to tap the ledge 800 ft. below the present one. A 3-mile flume and ditch furnishing free water belongs to the company. The litigation which has caused this property to remain idle for several years comes to an end with the transfer of the mines.

Tuolumne County.

(From Our Special Correspondent.)

Black Oak.—This mine, just west of Soulsbyville, is still operated by steam power, it being impossible to utilize the water from the ditch on account of the snow. Stoping is going on in the 800-ft. north.

Hudson & Calhoun.—This mine, at Saw Mill Flat, is being worked through the Fox Mine tunnel. This tunnel has been retimbered and put in good condition. The ore shoot, which was lost in sinking, has been cut and shows good ore.

Lucy.—Development work is still going on at this mine, one mile northeast of Summersville. A 25-ft. open cut has been made, and 10 tons of very rich ore has been taken from a vein which is from 4 to 10 in. wide.

Standard.—At this mine, near Columbia, a cross-cut tunnel has tapped a 6-ft. vein of very good free milling ore. After driving about 40 ft. on the vein, the result was satisfactory. Another tunnel, driven several hundred feet from above, is in about 60 ft. on the vein, which shows up well. Assays are being made from samples taken from all the openings.

Street.—This mine, ½ mile north of Tuttletown, has been started up with a force of 12 men under Superintendent F. Wooster. The shaft will be straightened, sinking resumed, and a new road to the property built. A 6-stamp mill is on the ground.

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ZONA.

e County.

mining district, near as been paid for seven ns by W. E. Rise of or Michigan parties. furnaces of the Copper e been transferred to s, and the smelter shed o accommodate three e same size as those two converter stands. ouse of the Calumet & s been completed and ave been ordered.

n County.

le & Arizona Co. has ath, Minn., to develop aims on the west side tain and the Rattle- of Chase creek. The cKinley, is at Clifton pment. He will build ard's gulch to the air drills and erect

o. has put in another orrison, concentrator orts that the two ma- g 600 tons per day. lled six months ago put up in the United

rintendent of the Tri- at Safford, will put in it.

County.

Co. has bought the ilroad and is repair-

perintendent of the orked by the Cerbat ear Kingman, reports oot shaft. The mine oldly and a pumping e put in. ave been put in by t Acme. nes, 75 miles south- , Utah, in Mohave ave resumed work r two years. being put up for the t Acme. an Francisco, Cal., is r's group, Virgin and

County.

orking the Brooklyn mill, near Dewey sta- M. Co., operating

thus scouring out and deepening its channel. There will be no cut through Sherman island. Strong recommendations against allowing the detritus from the mining streams will be made. The filling of the Sacramento and the consequent floods will be traced to the slickens from mining operations which filled the tributaries and the main streams.

Amador County.

The 10-stamp mill at Jose gulch, near Butte Basin, southeast of Jackson, is running, employing six men in mine and mill. W. E. Stewart has charge.

At the Rhetta mine, near Plymouth, the mill is running. W. W. Worthing is superintendent.

The Central Eureka for December has declared a dividend of 7 cents per share, amounting to $28,000.

There is talk of reopening the Empire and Pacific, near Plymouth.

Calaveras County.

(Special Correspondence).—The 100-stamp mill of the Stickles mine is crushing ore. The new Laidlaw-Dunn-Gordon 20-drill air compressor is working satisfactorily. It is run by a 400 H. P. electric motor.

Angels, Dec. 20.

El Dorado County.

A 4-stamp mill for prospecting is being put on the Scherrer mine, east of Georgetown. A. P. Frechette has charge.

G. W. Seybold, of the B. S. mine, near Pleasant Valley, reports that a hydraulic plant has been put in. N. H. Berger of Placerville is superintendent.

Fresno County.

In Coalinga there are forty-three drilling rigs operating and fifteen new ones that will be operating by the first of the year. Nearly 500 of the 1200 inhabitants of Coalinga and vicinity are engaged in the production of oil.

Mariposa County.

Congress has passed the bill transferring from the Yosemite National Park to Sierra Forest Reserve a large tract in Mariposa county within which are private holdings of mineral lands. This releases the mineral lands from the restrictions of the National Park and will admit of the building of roads, developing electric power from the streams and the operation of the mines at a reduced expense.

Mono County.

Surveys for the power line of the proposed electric plant on Bishop creek to transmit power 90 miles to Goldfield, Nev., have been made and the work of construction on the plant has been begun.

G. L. Carr, of Carrville, superintendent of the Yellow Rose M. Co., operating claims on the headwaters of Salmon and Union creek, in Coffee Creek mining district, says that the company is driving a 1200-foot tunnel from the Siskiyou county side to tap the ore vein running parallel with the Dorleska mine, now being operated on the Trinity side. They intend to put in an electric power plant from the headwaters of Salmon river.

Sonoma County.

The Socrates mine, at Pineflat, is shipping 200 flasks of quicksilver a month. C. Bell is superintendent.

Trinity County.

Eastern men, represented by F. Grotefend of Redding, have options on dredging placer ground along the Trinity river, above Junction City, and are prospecting with a Keystone drill.

The Dorleska, at Dorlesks, will work 100 men in the spring, and are preparing to put in machinery for crushing with a larger milling plant. H. Z. Osborne of Los Angeles, Cal., is president and manager.

The Globe mine, near Dedrick, has closed for the winter. Henry Randohr is superintendent.

The 5-stamp mill on the Lappin mine is crushing. Manager Beacham will soon put in an air compressor and power drill.

Tuolumne County.

At the Woodside mine, near Sonora, owned by the Ranch M. Co., the shaft is being enlarged from top to bottom by three shifts.——A Gates canvas plant has been put in at the Black Oak mine at Soulsbyville and it is proposed to do away with the cyanide process, as the new plant will save the values.

W. T. Beveredge and B. Harter have bonded to H. G. Comstock & Co. of San Francisco the Roberts placer claim, containing 139 acres, near Montezuma.

C. W. Ayers of San Francisco has bonded to Chicago parties the Omega and Joe Hooker quartz mines near Rawhide.——B. Bacon and C. Dorsey of Columbia are working the Mexican and Bauman veins on Bald mountain, the property of J. F. Rooney.——The Horseshoe Bend mine is putting in a new mill. E. Goss of Sonora is superintendent.——The mill on the Experimental Gulch mine will soon be completed.——Hawkett & Anderson of Columbia are working the dump of the Over mine on Bald mountain.

A deposit of tale 4500 feet in length and over 100 feet in width has been discovered by H. Shaw in Hunter canyon, southeast of Tuolumne.

1909:

ing the M. McCormick Company or its personnel would be like attempting a summary of the world's literature and eliminating the bible and Shakespeare's works. The company has extensive cattle and butchering interests in this and San Joaquin counties. The shop in Sonora is in charge of Frank M. McCormick, a steady young man who is showing good business ability. The company formerly owned several markets in this county, but has disposed of all save the one in Sonora. The Stockton establishment is an immense concern, doing a big wholesale and retail business. Andrew McCormick is president of the M. McCormick Company, and is doing much for this county, as did his father and brothers before him. He knows all about the cattle (dead or alive) trade and under his management the company is continuing the successful business career it has pursued for years. Andrew McCormick was born in Sonora, educated in the schools here and, like the company he heads, has been a foremost worker for the good of the county in which he holds so many important interests. He is an owner in the Draper and McCormick-McPherson mines, both of which are being worked.

1913 CA Journal of the Senate p187

Fox, Hudson, Calhoun and Ford Group of Mines (quartz). They are 1½ miles southeast of Columbia, on the north slope of Bald Mountain. The vein occurs in a mica schist and strikes N. 10° E., dip 72° E. Work is carried on through Fox tunnel, which crosscuts the vein 150 feet from the entrance, and a drift run 300 feet north and 200 feet south on the vein. A winze is sunk on vein 240 feet below tunnel level. On the Ford claim there is a crosscut tunnel 2000 feet in length to vein. Three men employed sinking winze. Thomas Conlin, of Columbia, owner.

1915:

this district), has caused a renewal of interest in this belt by mine operators, as several old and new properties are being reopened.

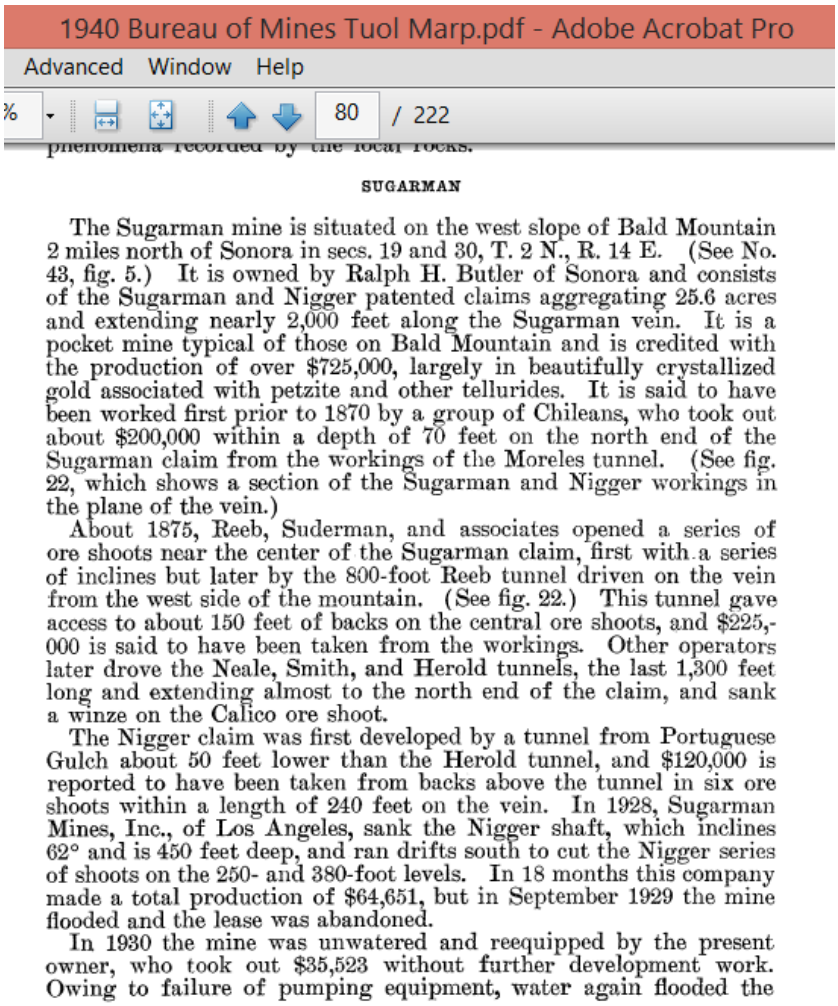
In the neighborhood of Tuolumne there is a notable revival in mining, as the New Albany and Providence mines have resumed operations and promise to be steady producers.

Increased activity is being shown in pocket mining on Jackass Hill, near Tuttletown, and on Bald Mountain in the neighborhood of Sonora and Columbia.

Owing to the large amount of rain during the past year, a great number of gravel mines have reopened, and there should be a great increase in production from this source of mining. An extensive amount of development is under progress on the ancient river channels of Table Mountain, especially notable being the driving of a 6000-foot tunnel by the Springfield Tunnel and Development Company at Columbia, which if successful will mean a boom for this famous old camp as a gold producer.

In this county there still remains a large area of unexplored territory, on both the central and east belts, which only wants the capital to open up new producing mines.

Source: Mine and Mineral Resources of Amador, Calaveras and Tuolumne 1915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phenomena recorded by the local rocks.

SUGARMAN

The Sugarman mine is situated on the west slope of Bald Mountain 2 miles north of Sonora in secs. 19 and 30, T. 2 N., R. 14 E. (See No. 43, fig. 5.) It is owned by Ralph H. Butler of Sonora and consists of the Sugarman and Nigger patented claims aggregating 25.6 acres and extending nearly 2,000 feet along the Sugarman vein. It is a pocket mine typical of those on Bald Mountain and is credited with the production of over $725,000, largely in beautifully crystallized gold associated with petzite and other tellurides. It is said to have been worked first prior to 1870 by a group of Chileans, who took out about $200,000 within a depth of 70 feet on the north end of the Sugarman claim from the workings of the Moreles tunnel. (See fig. 22, which shows a section of the Sugarman and Nigger workings in the plane of the vein.)

About 1875, Reeb, Suderman, and associates opened a series of ore shoots near the center of the Sugarman claim, first with a series of inclines but later by the 800-foot Reeb tunnel driven on the vein from the west side of the mountain. (See fig. 22.) This tunnel gave access to about 150 feet of backs on the central ore shoots, and $225,000 is said to have been taken from the workings. Other operators later drove the Neale, Smith, and Herold tunnels, the last 1,300 feet long and extending almost to the north end of the claim, and sank a winze on the Calico ore shoot.

The Nigger claim was first developed by a tunnel from Portuguese Gulch about 50 feet lower than the Herold tunnel, and $120,000 is reported to have been taken from backs above the tunnel in six ore shoots within a length of 240 feet on the vein. In 1928, Sugarman Mines, Inc., of Los Angeles, sank the Nigger shaft, which inclines 62° and is 450 feet deep, and ran drifts south to cut the Nigger series of shoots on the 250- and 380-foot levels. In 18 months this company made a total production of $64,651, but in September 1929 the mine flooded and the lease was abandoned.

In 1930 the mine was unwatered and reequipped by the present owner, who took out $35,523 without further development work. Owing to failure of pumping equipment, water again flooded the

Columbia California is considered the richest placer gold area for its size in the world!

"Particularly rich placers were found in alluvium deposited on carbonate rock; **compared to any equal-sized area in the world, the deposits in the Columbia-Springfield-Shaw's Flat area were the richest ever documented**." 1940 cir Julihn & Horton US Bulletin of Mining 424

From 1901 History of Tuolumne County:

Diggings.	Output.
Columbia and Springfield	$55,000,000 00
Yankee Hill	500,000 00
Pine Log or Italian Bar	3,500,000 00
Browns Flat	4,500,000 00
Sonora	11,000,000 00
Poverty Hill	4,000,000 00
Algerine	2,500,000 00
Chinese Camp	2,500,000 00
Don Pedro and Jacksonville	9,000,000 00
Big Oak Flat, Groveland and Deer Flat	25,000,000 00
Gold Springs and Nigger Gulch	7,500,500 00
Willow Bar	100,000 00
O'Byrnes Ferry	100,000 00
Peori Flat	5,000 00
Rough and Ready	250,000 00
Confidence and Davis Flat	500,000 00
Mormon Creek	2,500,000 00
Sawmill Flat	2,500,000 00
Horseshoe Bend	300,000 00
Shaws Flat	6,000,000 00
Kinkaid Flat	1,500,000 00
Campo Seco	5,500,000 00
Jamestown	3,500,000 00
Sullivan Creek	300,000 00
Montezuma	1,500,000 00
Moccasin Creek	150,000 00
Table Mountain	5,000,000 00
Total	$154,705,500 00

MINING LAWS TO KNOW

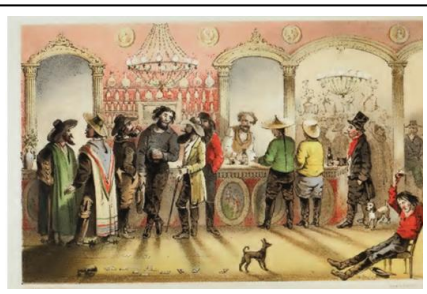
MINERS HAVE THE RIGHT TO MINE

This right to mine is an action also referred to as a “right of self-initiation”. This right to mine is an action (prospecting and extraction), as distinguished from idle ownership. Very few people understand the difference between a right (granted by Congress under statute) as distinguished from a permit (granted by an agency through regulation). Ones right to choose to actively engage in mining stems from the 1866 and 1872 mining law grant from Congress (codified at 30 U.S.C. sections 22-54). Source: Publiclandsforthepeople

USA Congress Passed a law in 1866:

SEC. 9. *And be it further enacted*, That whenever, by priority of possession, rights to the use of water for mining, agricultural, manufacturing, or other purposes, have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and the decisions of courts, the possessors and owners of such vested rights shall be maintained and protected in the same; and the right of way for the construction of ditches and canals for the purposes aforesaid is hereby acknowledged and confirmed: *Provided, however*, That whenever, after the passage of this act, any person or persons shall, in the construction of any ditch or canal, injure or damage the possession of any settler on the public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage.

SEC. 10. *And be it further enacted*, That wherever, prior to the passage of this act, upon the lands heretofore designated as mineral lands, which have been excluded from survey and sale, there have been homesteads made by citizens of the United States, or persons who have declared their intention to become citizens, which homesteads have been made, improved, and used for agricultural purposes, and upon which there have been no valuable mines of gold, silver, cinnabar, or copper discovered, and which are properly agricultural lands, the said settlers or owners of such homesteads shall have a right of pre-emption thereto, and shall be entitled to purchase the same at the price of one dollar and twenty-five cents per acre, and in quantity not to exceed one hundred and sixty-acres; or said parties may avail themselves of the provisions of the act of Congress approved May twenty, eighteen hundred and sixty-two, entitled “An act to secure homesteads to actual settlers on the public domain,” and acts amendatory thereof.



Source:
https://digitalcommons.csumb.edu/cgi/viewcontent.cgi?article=1013&context=hornbeck_usa_2_d

THE MINING LAW OF 1872

The Chaffee law of 1866 and the placer law of 1870 were combined into the General Mining Act of 1872. The mining law of 1866 had given discoverers rights to stake mining claims to extract gold, silver, cinnabar (the principal ore of mercury) and copper. When Congress passed the General Mining Act of 1872, the wording was changed to "or other valuable deposits," giving greater scope to the law.

The 1872 act also granted extralateral rights to lode claims, and fixed the maximum size of lode claims as 1500 feet (457m) long and 600 feet (183m) wide.

The Act of 1872 also set the price for land assumed under the mining act:

> FORTY-SECOND CONGRESS. Sess. II Ch. 152. 1872. 95 approved July ninth, eighteen hundred and seventy) a patent shall issue for the placer-claim, including such vein or lode, upon the payment of five dollars per acre such vein or lode claim, and twenty-five feet of surface on each side thereof. The reminder of the placer-claim, or any placer-claim not embracing any vein or lode claim, shall be paid for at the rate of two dollars and fifty cents per acre, together with all costs of proceedings;[4].

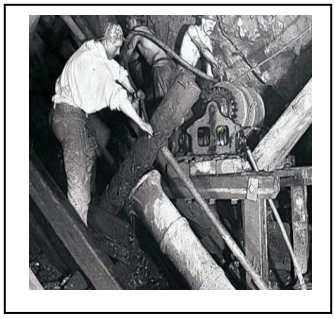
For more on specific mining laws: https://www.publiclandsforthepeople.org/mining-documents/

IMPORTANT LAWS FOR CALIFORNIA MINERS

There are many laws and regulations that pertain to mining and a attorney that specializes in mining should be consulted for advice. Typically, many gold mines fall under the SMARA laws.
The California Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition.

THERE ARE TWO IMPORTANT CASES THAT GOLD MINERS UTILIZE IN CALIFORNIA:

*One is a recent case **Hardesty vs. Sacramento County**. Hardesty owned a gravel mine and was ordered by Sacramento County to stop mining until they obtained a permit and posted financial assurances with the County as required by state law.*



Plaintiffs contended that they had a vested right under state law to mine without a permit, and they claimed that the County's enforcement efforts were improperly motivated by political pressure from a larger mining company. Hardesty claimed that Sacramento County wrongfully interfered with their right to devote their property to a legitimate use, and the miners claimed that the County arbitrarily deprived them of their right to pursue a chosen profession. Hardesty won and was awarded $105 million but the award amount was later reduced.

*The other important law pertains to mine owner/operators that are exempt from MSHA regulations (the mine owners had no employee) and oversight through their interpretation of Marshall v. Wait, 628 F. 2d 1255, 9th CA, 1980. Wait operated a rock quarry located in Amador County, California. The quarry, which has been in Wait's family since around the turn of the century was cited for multiple MSHA violations. **Wait appealed the violations and won.***

The case went all the way to the United State Supreme Court.

GOLD PROPERTY TAX BENEFITS

The IRS has a law that benefits gold miners. There can be substantial tax benefits for owning a gold mine. See Internal Revenue Code IRC 617. Section 617 applies to costs paid or incurred by the taxpayer for exploration expenses undertaken directly or through a contract by the taxpayer. See, however, sections 381(a) and 381(c)(10) for special rules with respect to deferred exploration expenditures in certain corporate acquisitions. Ref Link: https://www.law.cornell.edu/cfr/text/26/1.617-1

AGRICULTURAL ACTIVITIES

There may be Agricultural possibilities for this property and the agricultural potential should be explored especially if it can work hand in hand with the gold mining. Agricultural Activity is defined by the State of California as:

> "The cultivation and tillage of the soil, dairying, the production, cultivation, growing and harvesting of any agricultural commodity, the raising of livestock or poultry, and any practices performed by a farmer or on a farm as incident to or in conjunction with those farming operations, including preparation of these products for market."

The land use exemption from SMARA occurs in § 2714, which states in part:

> This chapter does not apply to any of the following activities: (a) **Excavations or grading conducted for farming** or the immediate excavation or grading of lands affected by a flood or natural disaster for the purpose of restoring those lands to their prior condition.

The Reclamation Regs. have an exemption clause that is favorable and supportive of SMARA agricultural exemption § 2714(a) as well as in support of beginning extraction operations immediately under the designation of exploration and prospecting for the Phase I Proof of Concept. 14 CCR § 3505(a) which states in part:

> (a) Exemptions. In addition to the provisions of Public Resources Code Section **2714(a)**, (c) and (d), (1) any surface mining operation that does not involve either the removal of a total of more than **1,000 cubic yards of minerals, ores, and overburden**, or involve more than one acre in **any one location**, shall be exempt from the provisions of the Act.