GOLD RUN DISTRICT

LOCATION

The Gold Run or Adelaide district is located on the east side of the Sonoma Range. In this report it also includes mines and prospects in the southern part of Edna Mountain and in Gregg Canyon to the south of Adelaide. Manganese properties south of Gregg Canyon are included in the Black Diablo district.

HISTORY

The district has been active since 1866, with principal production between 1897 and 1910. Recorded output between 1907 and 1936 was valued at $567,402 (Vanderburg, 1938, p. 26). Production of $73,116 was recorded from the Adelaide-Crown Mine in 1940 (Couch and Carpenter, 1943, p. 69). The district has probably been inactive since that time, except for some recent exploration efforts. The district has received some attention during the precious metals boom of the 1970's and 1980's. Exxon Corp. recently (1984) drilled an area south of the Cumberland Mine in search of precious metals. Prospects in Gregg Canyon were prospected for molybdenum in the late 1960's and early 1970's (J.V. Tingley, oral communication, 1984), and in the early 1980's, probably for precious metals.

GEOLOGIC SETTING

The mountain ranges in the vicinity of the Gold Run district consist predominantly of Paleozoic rocks intruded by Mesozoic? granitic rocks. Tertiary volcanic units locally overlie the older rocks. The principal host rocks for mineralization are the Pennsylvanian-Permian Havallah sequence of marine engeosynclinal rocks the Cambrian Preble Formation (limestone and shale). Some contact metasomatic and replacement mineral deposits are adjacent to the Mesozoic granitic intrusive rocks, one of them in limestone of the Pennsylvanian-Permian Edna Mountain Formation.

ORE DEPOSITS

The ore deposits in the vicinity of the old townsite of Adelaide consist of two types, typified by the Adelaide and Crown Mines. At the Adelaide Mine, copperzinc skarns occur as metasomatic replacements of limestone beds of the Cambrian Preble Formation. The ore consists of phyrrhotite, chalcopyrite, spalerite, and a little galena in a gangue of garnet, vesuvionite, diopside, calcite, orthoclase, and a very little quartz (Ransome, 1909, p. 63). The Cumberland Mine is a lead-zinc-silver metasomatic replacement deposit, containing massive galena-sphalerite-pyrite ore with pods of quartz.

The Crown (or Adelaide Crown) Mine was worked for gold and silver, beginning in 1920 and continuing until at least 1942 (Ferguson, Muller, and Roberts, 1951; Willden, 1964, table 25). The main vein, the Crown vein

is a due north, 70°W zone of silicification veining, and stockworks. The wallrock is siltstone and sandstone of the Cambrian Preble Formation. The fault zone is reported to be mineralized over a width of 3-25 m, and is stained by iron and manganese oxides (Vanderburg, 1938, p. 27). The mineralized zone continues to the north of the Crown Mine, where an elongate open pit follows the zone, especially quartz veining in the hanging wall. The north-trending vein dips 60° west at this open pit. Pyrite is present in the zone, although much of it has been oxidized to limonite. Approximately 0.5 km north of the open pit, at the John Gomes? property, a N15°W, 35°SW zone of wad and gossan contains spotty occurrences of a green mica (sericite?) reported to contain nickel and chromium (Peter Vikre, oral communication, 1984). The stoping along this vein was, no doubt, also for precious metals. Many shallow workings are located along a north-south zone over 5 km long, that extends from near the Cumberland Mine to about 3 km north of the old Adelaide townsite. The properties examined in this zone, with the exception of the Cumberland Mine described earlier, consist of iron oxide minerals, sparse pyrite, and spotty vein quartz or silicification along northtrending, low- to high-angle faults in sandstone and siltstone of the Preble Formation. These northerly-trending faults parallel a major fault which lies to the west of the district and separates Ordovician Valmy Formation on the west from Preble Formation on the east.

Placer mining in the Gold Run district was done in the 1860's, the 1920's, 1935, and the early 1980's. The amount of placer gold produced has been small (Vanderburg, 1936, p. 91). Old placer workings and areas of activity today are along Goldrun Creek near its mouth and along a creek in S8,T34N,R40E.

A number of mines and prospects in the southern Edna Mounatins are included within the Gold Run district. At the Copper Head property (S14,T34N,R40E) molybdenite, pyrite and chalcopyrite occur in quartz veinlets in a mediumgrained granodiorite. A copper prospect in S12,T34N,R41E consists of oxide copper minerals and limonite in ribbon chert of the late Paleozoic Havallah sequence. The Wilcox tungsten prospect (S22,T34N,R40E) contains scheelite, pyrite, magnetite, and chalcopyrite in a exoskarn developed in Pennsylvanian-Permian Edna Mountain Formation limestone. The skarn zone is up to 30 m wide, but the sulfide minerals (and possibly scheelite) are concentrated in a 1 m wide zone.

A group of mines and prospects in Gregg Canyon about 10 km south of Adelaide were originally probably developed for copper, lead, and silver?. More recently the area has been the site of exploration for molybdenum and precious metals. The old workings are along quartz veins which cut granite porphyry or quartz monzonite. The ore minerals are sparse in the vein quartz on the dumps. Pyrite, galena, tetrahedrite, hematite, limonite, and chalcocite were recognized in dump samples. The granitic rocks intrude Cambrian Preble? Formation nearby.

SELECTED REFERENCES

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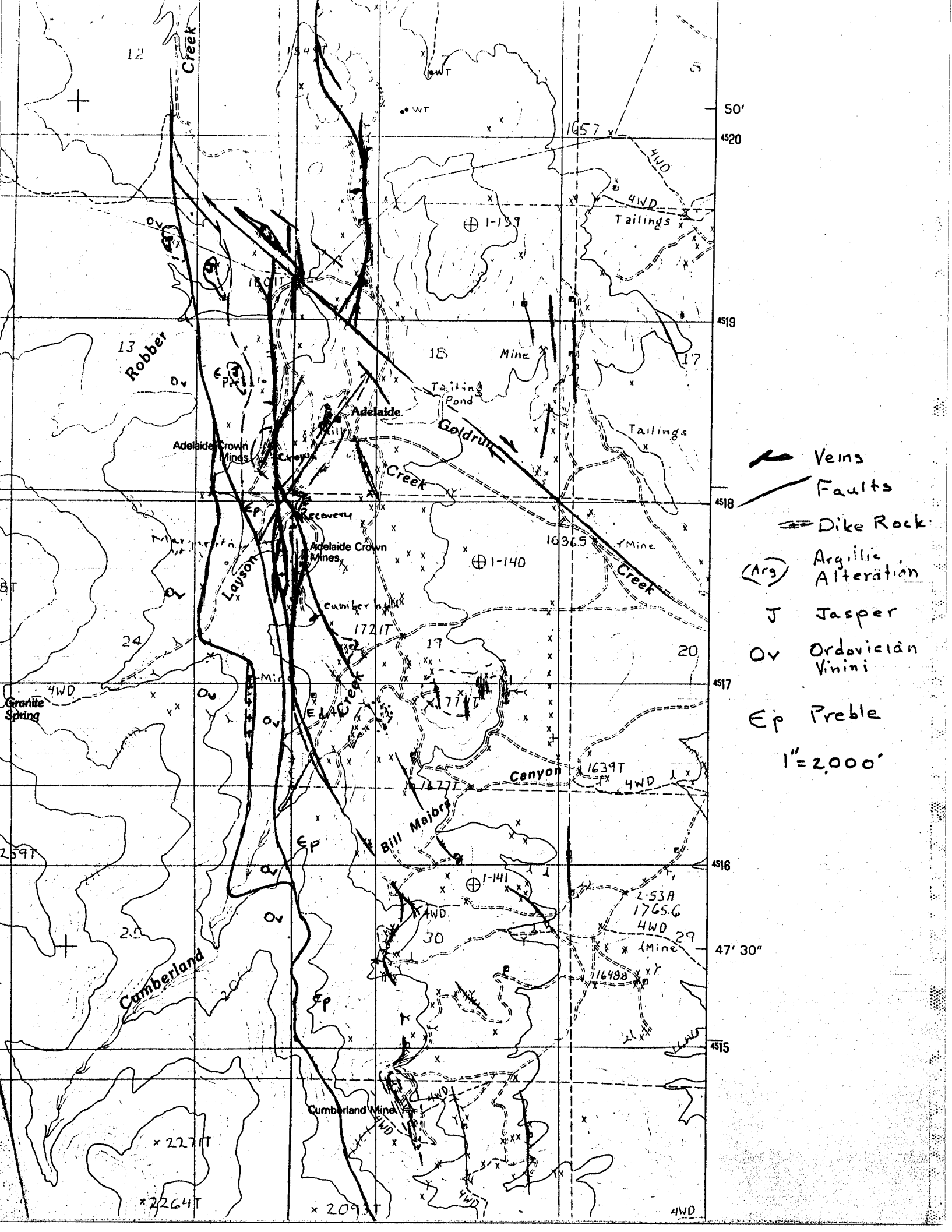
Veins
Faults
Dike Rock
(Arg) Argillic Alteration
J Jasper
Ov Ordovician Vinini
Ep Preble
1" = 2,000'
Robber Creek
Adelaide
Adelaide Crown Mines
Goldrun Creek
Tailing Pond
Tailings
Mine
Lawson Creek
Cumberland
Granite Spring
Ed Creek
Canyon
Bill Majors
Cumberland Mine
4WD
50'
47' 30"
4520
4519
4518
4517
4516
4515