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Item 47

GOLD ACRES, NEVADA

Production: 120,000 oz. Au, 6500 oz. Ag

Type: Carlin

Host Rocks: Roberts Mountain limestone (Silurian); thin bedded and graptolite-bearing limestone; thin bedded and laminated silty limestone; sericitized quartz porphyry.

Ore Age: Underlying granite is 98.8 ± 2 my.
Quartz porphyry sericite alteration is 94.3 ± 1.9 my.

Mineralogy: The Au deposit is superposed on the zone of contact metamorphic rocks above the intrusion.
Mineralization occurs after contact metamorphism with molybdenite (380+50) then sphalerite, pyrite and other sulfides (160-235), Au, As, B, Hg and W deposited last at 160-195.
Au is fine disseminated.

Alteration; During contact metamorphism chert and argillite was converted to hornfels.
Silicification of Au-bearing silty limestone took place with removal of calcite and dolomite.
Fault zones contain kaolinite, muscovite and quartz.

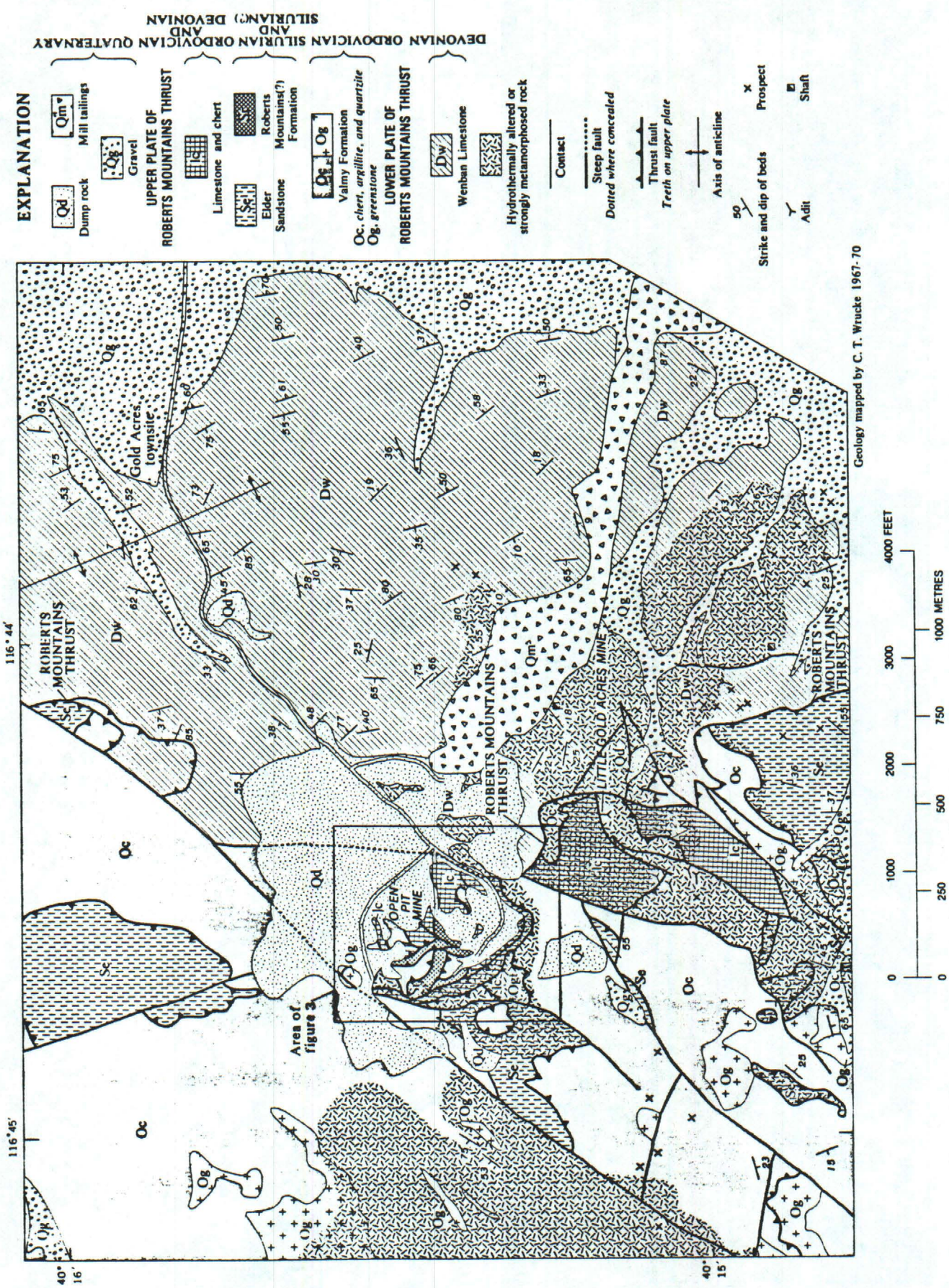

FIGURE 2.—Geology of the Gold Acres area.

Geology mapped by C. T. Wrucke and T. J. Armbustmacher, 1967-68; assisted by W. R. Jones, Jr. and M. J. Maxson, 1967; and W. L. Simpson, 1968

FIGURE 3.—Generalized geology of the Gold Acres open-pit mine.

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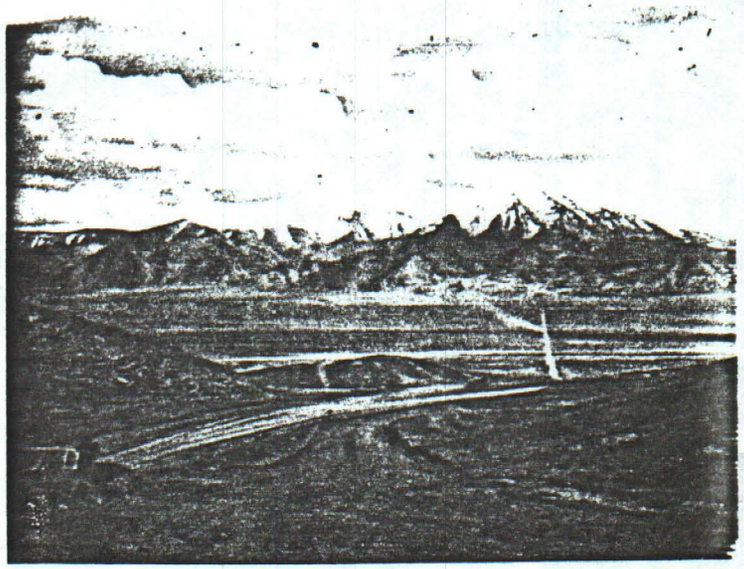
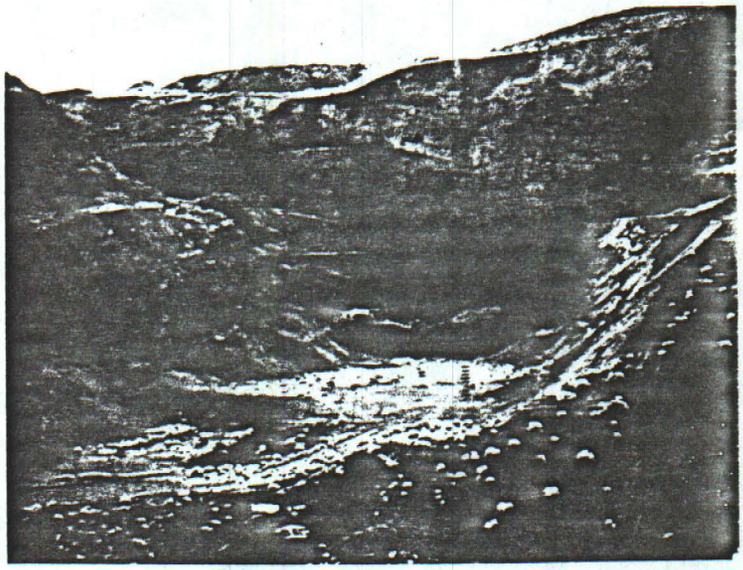
GOLD ACRES, NEVADA



From Gold Acres view to CORTEZ



SE wall of main pit showing carbonaceous limestone and white altered zone adjacent to fault.

TO: J. L. Walker

FROM: D. E. Ayres E. P. R.

SUBJECT: Nevada gold deposits field trip, March 1- 5, 1982.

This field trip was arranged by Fred Warnaars and Tony Greenish of the International Explorations Department. Max Boots of that department and Jean Lawler participated also. Visits were made and samples collected from the "Carlin-type" deposits at Cortez, Gold Acres and the Sterling Mine, a "porphyry" related deposit at Round Mountain, and an epithermal hot springs deposit at Borealis. Locations of these deposits are shown on the accompanying map.

Approximately 50 samples were collected, mainly from the Cortez, Sterling and Borealis deposits. These appear suitable for clay mineral and possibly fluid inclusion analysis. The Sterling mine, in view of its size, geological setting, ease of access and the interest shown by the staff, has potential for research studies on Carlin-type mineralogy and alteration.

Dean Ayres

D. E. Ayres

10 March, 1982

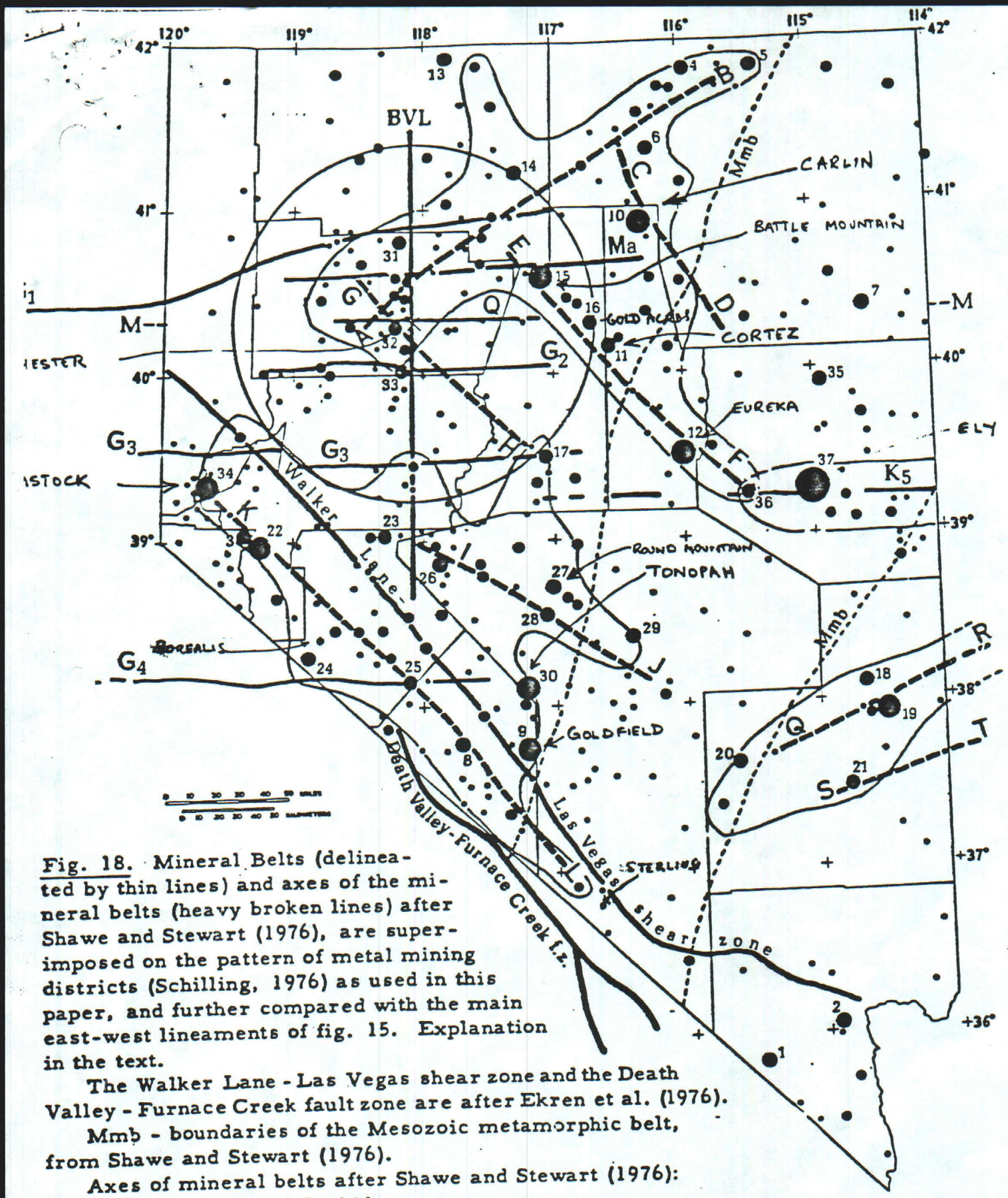


Fig. 18. Mineral Belts (delineated by thin lines) and axes of the mineral belts (heavy broken lines) after Shawe and Stewart (1976), are superimposed on the pattern of metal mining districts (Schilling, 1976) as used in this paper, and further compared with the main east-west lineaments of fig. 15. Explanation in the text.

The Walker Lane - Las Vegas shear zone and the Death Valley - Furnace Creek fault zone are after Ekren et al. (1976).

Mmb - boundaries of the Mesozoic metamorphic belt, from Shawe and Stewart (1976).

Axes of mineral belts after Shawe and Stewart (1976):

A - B : Shoshone - Jarbidge

(continued on next page)