

3950 C205

ADA-JUPITER RIDGE GOLD DEPOSIT

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INTRODUCTION

The Ada-Jupiter Ridge epithermal near-surface gold deposit is located three miles west of Ely and one mile south of U.S. Highway 50 in White Pine County, Nevada. The deposit is in sections 13 and 14, T.16N, R.62E. The deposit is one of two low grade gold deposits outcropping along the Saxton Thrust in the east end of the Robinson Mining District.

Famous as a porphyry copper producer, the district is now a gold property leased Kennecott (now owned by RTZ) and operated as a joint venture between Alta Gold (60%) and Echo Bay Mines (40%). Alta Gold (formerly Silver King Mines and Pacific Silver Corp.) is the operator and has been producing gold from the Star Pointer open pit since September 1986. The Ada-Jupiter Ridge deposit is scheduled to go into production in September 1989 as an open pit heap leach operation with a millable core.

EXPLORATION AND RESERVES

The Jupiter Ridge summit area was mined underground in the early 1900s for gold and copper, and several trenches and tunnels were excavated at Ada. In 1975 Kennecott identified a gold geochemical anomaly at Jupiter Ridge. Bear Creek Mining Company drilled five rotary holes in 1982 with geologic reserves estimated at 200,000 to 500,000 tons averaging .038 oz Au/ton.

Alta Gold initiated their exploration drilling program at Ada in early 1986, with discovery hole SKA 1 intercepting 80 feet averaging .093 oz Au/ton in the top of the hole. By late 1986 54 holes had been drilled at the Ada area with reserves estimated at 1.5 million tons averaging .030 oz Au/ton.

Follow up work in 1988 expanded drilling to the west to include the adjacent ridge, Jupiter Ridge. Step-out and infill drilling on 100-foot centers was not completed until March 1989. Ada-Jupiter Ridge reserves (proven and probable) total 8.0 million tons averaging .024 oz Au/ton (192,000 ounces). This is the largest tonnage gold deposit on the property.

The deposit has a strike length of 3000 feet and varies in width from 200 to 1000 feet. About 12.4 miles (65,252 feet) of rotary and reverse circulation drilling in 322 holes has been completed by Alta Gold.

GEOLOGY

The Ada-Jupiter Ridge deposit is localized by the Saxton Thrust (FIGS.1 and 2) which has thrust Pennsylvanian Fly Limestone over Mississippian Chainman Shale. The conspicuous thrust zone at the surface marks the break between imbricated gossanous Chainman and brecciated jasperoid and garnet-epidote skarn at the base of the Ely.

The Saxton Thrust dips to the south/southwest at 30 degrees. North-south right lateral movement along Jupiter Ridge has imparted a strong vertical component, dipping to the west at

60 to 70 degrees. Extensive silicification occurs along this steep, pre-mineral offset zone, striking N20W (FIG.1).

The Ada-Jupiter Ridge area lies 500 to 1500 feet south of the Robinson porphyry system. Cretaceous quartz monzonite porphyry has been encountered in many drillholes in the west Jupiter Ridge area. This western area is covered by 0 to 180 feet of unmineralized Kennecott waste dump.

Unaltered Chainman Shale consists of a carbonaceous fissile shale, but in the Ada-Jupiter Ridge area is altered to a blocky tan to light brown hornfels. The hornfels is oxidized to a depth of about 100 feet. Unoxidized Chainman consists dominantly of a light gray banded calc-silicate hornfels with minor interbedded quartzite, carrying 1 to 2% disseminated pyrite.

The top of the Chainman is a highly variable assemblage of tan to dark brown hornfels and fine-grained sandstones. In the Ada area the sandy unit is up to 100 feet thick and may represent the Diamond Peak Sandstone. Disseminated epidote is common.

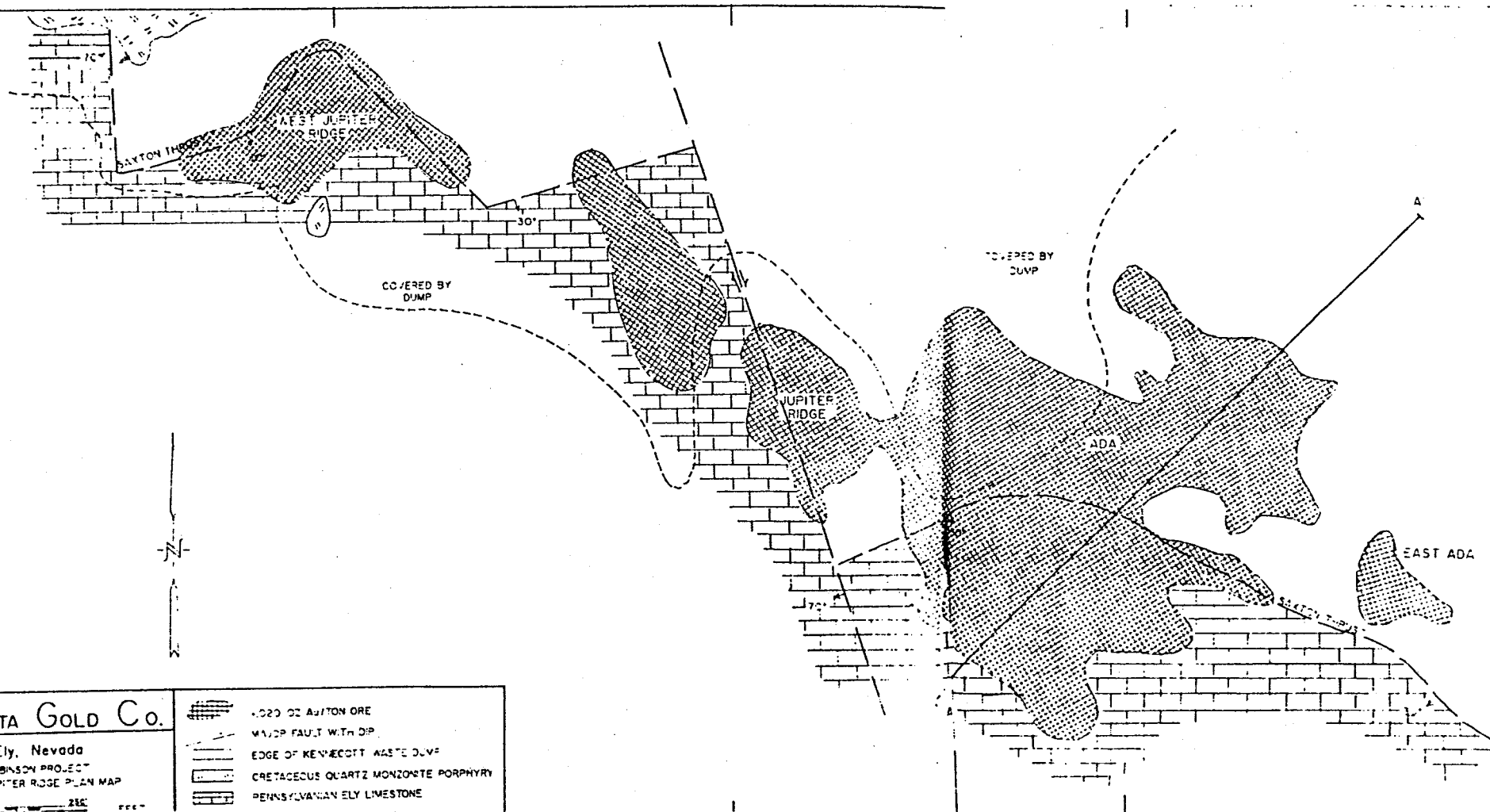
The Saxton Thrust is intensely imbricated and has been pervasively stained by rusty iron oxides. Gossan and limonitic hornfels are abundant. The brittle base of the Ely Limestone has been fractured and replaced by brecciated jasperoid and garnet-epidote skarn with lenses of massive pyrite. Above the skarn, the Ely consists of white to very dark gray cherty limestone. Bleaching and recrystallization occur frequently.

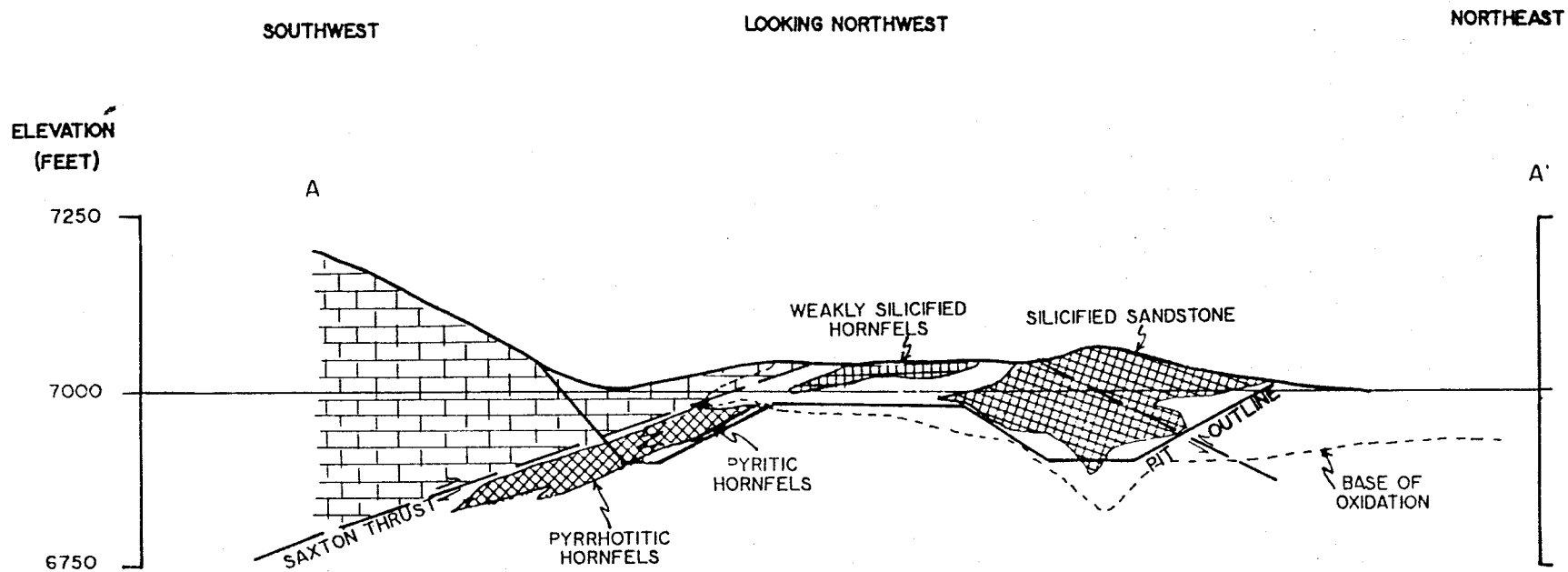
MINERALIZATION

Silicification is the dominant alteration type and is best developed in the more permeable upper Chainman sediments and at the base of the fractured Ely Limestone. Though quite pervasive, silicification is most prominent along steeply dipping fault zones. Gold was introduced with iron and silica-rich oxidizing hydrothermal fluids. Mineralized rock carries anomalous gold, lead, zinc and arsenic with weaker enrichments in copper, silver and antimony. The deposit outcrops as a light brown spongy silicified sandstone at Ada and as a rusty knobby jasperoid and siliceous gossan at Jupiter Ridge.

The sandy upper portions of the Chainman provided a primary permeability. Ely Limestone was thrust over the Chainman, developing a secondary permeability with the limestone acting as an impermeable caprock. With the exception of the mineralized sandstone at Ada, the ore is structurally controlled. Intense supergene leaching has occurred. Gold values appear to be locally upgraded where the Saxton Thrust has been cut by high angle north/northwest-trending faults.

Three distinct ore types have been identified (FIG.1 and 2). (1) Mill grade gold mineralization outcrops in spongy silicified sandstone at Ada. Lower gold grades are associated with weakly silicified hornfels. (2) Variable gold grades occur in pyritic and pyrrhotitic ore at Ada immediately below the Saxton Thrust. (3) Heap leach grade siliceous gossan with minor jasperoid is the dominant ore type at Jupiter Ridge. Metallurgical tests indicate 85%, 70%, 50% and 20% gold recovery in sandy, gossanous, pyritic and pyrrhotitic ore respectively.





LEGEND



±.020 OZ Au/TON ORE



MAJOR FAULT WITH RELATIVE MOVEMENT



PENNSYLVANIAN ELY LIMESTONE



MISSISSIPPIAN CHAINMAN SHALE



ALTA GOLD Co.

Ely, Nevada
ROBINSON PROJECT
ADA CROSS SECTION
LOOKING NORTHWEST

SCALE



FIGURE 2