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ITEM 17

## AURORA—GOLD

Patented claim names: Silver Lining Consolidated, Humboldt,  
Humboldt W., Astor, Alice C. Dennis  
Alternate names: Humboldt East Claims, Humboldt West Claims

Commodities: Au, Ag

## LOCATION-OWNERSHIP

County ..... Mineral.  
Mining district ..... Aurora.  
Elevation ..... 2,290 m.  
Topography ..... Hilly.  
Domain ..... Private.

General location ..... About 35 km north of Hawthorne.  
Meridian ..... Mount Diablo.  
Tract ..... Sec. 17, T 5 N, R 28 E.  
Latitude ..... 38°12'23" N.  
Longitude ..... 118°53'16" W.

Owner-lessee ..... Electra North West Resources, Ltd., Vancouver, BC, Canada (1983).  
Owner-lessee ..... Centennial Minerals, Ltd., Vancouver, BC, Canada (1983).  
Operator ..... Centennial Exploration Corp. (1983).  
(Portions of the property are leased from Hanna Mining Co. and from Houston International Minerals.)

## GEOLOGY

Type of ore body ..... Fissure vein.  
Origin ..... Hydrothermal.  
Shape of ore body ..... Tabular.  
Ore controls ..... Faulting.  
Strike and dip of mineralized zone ..... N 40° E: 60 to 70° W.  
Age of mineralization ... 10 million yr.  
Pit zone average dimensions (1983 plan), m:  
Length ..... 490.  
Width ..... 60 to 120.  
Depth ..... 12 to 35.

Host formation ..... Volcanics.  
Geologic age ..... Tertiary.  
Rock relationships ..... Andesite, altered, encloses ore.  
Quartz, vein encloses ore, vein is ore.  
Alteration (district) ..... Potassic, argillic, propylitic.  
Size ..... Small.

Mineral names ..... Native gold, quartz, sulfides (sparse)  
(typical mineralogy of ore veins has been quartz, adularia, argentiferous tetrahedrite, pyrite, chalcocopyrite, and soft blue-gray material containing gold, and native gold).

## DEVELOPMENT

Current status ..... Active-producer; developing.  
Type of operation ..... Surface.  
Mining method ..... Open pit.  
Year of discovery ..... District discovery in 1860.  
Discovery method ..... Unknown.  
Initial production ..... June 1983 (planned).  
Past production ..... The first dore was planned to be poured in July 1983. Planned production for 1983 was 77,000 t containing about 300 kg gold. Anticipated recovery was 70%. Total waste production planned was 200,000 t (309).

Distance to water supply. . . 900 m, from abandoned underground workings.  
Road requirement ..... No new access road required.  
Distance to power supply ... On-site diesel electric generation.  
Mill location ..... On-site.  
Mill status ..... Active-testing.  
Milling method ..... Test cyanide heap leach, adsorption-desorption columns, electrolysis, smelting.  
Process rate ..... 90-t jaw and cone crusher, estimate about 1,600 t/d and 196,000 t/a.  
Product type ..... Gold dore.

## PUBLISHED RESERVES-RESOURCES

Class	Quantity	Grade	Year	Reference
1..Probable and inferred .....	1,500,000 tons .....	0.129 tr oz/ton Au .....	1983	309
2..Not reported in reference .....	1,200,000 tons .....	0.13 tr oz/ton Au; 0.30 tr oz/ton Ag .....	1982	444

## REFERENCES

7, 90, 228, 309, 356, 444, 598.

USGS quad maps ..... Walker Lake, 1:250,000.  
Aurora, 15'.  
USBM sequence number ..... 0320210544.  
Mid number ..... 2601790.

Comments: Ore body reflected in published reserves is reported to be open at depth and along strike.

Information Circular 9035

# Principal Deposits of Strategic and Critical Minerals in Nevada

By N. T. Lowe, Russell G. Raney, and John R. Norberg



UNITED STATES DEPARTMENT OF THE INTERIOR  
Donald Paul Hodel, Secretary

BUREAU OF MINES  
Robert C. Horton, Director