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WINDFALL—GOLD

ITEM 58

Alternate names: Eureka Windfall Mine, Western-Windfall Project
Ore bodies: Windfall, Rustler, Paroni

Commodities: Au, Ag
(Au-Ag ratio ≈5.7:1)

LOCATION-OWNERSHIP

County	Eureka.	General location	About 6.5 km south of Eureka.
Mining district	Eureka (Pinto).	Meridian	Mount Diablo.
Elevation	2,330 m.	Tract	Sec. 2, T 18 N, R 53 E.
Topography	Rugged.	Latitude	39°27'15" N.
Domain	Mixed; private and BLM administered.	Longitude	115°58'42" W.
Owner	Western Mining Services Ltd., Reno, NV (subsidiary of Western Gas, Oil and Mining, Reno, NV) (1982).		
Operator	Western-Windfall Ltd., Eureka, NV (operational entity of Western Mining Services Ltd.) (1982).		

GEOLOGY

Type of ore body	Disseminated, replacement.	Host formations	Hamburg Dolomite.
Origin	Hydrothermal, oxidation.		Dunderberg Shale.
Shape of ore body	Sheeted, wedge-shaped.	Geologic ages	Mid-Cambrian.
Ore controls	Fracturing, faulting, folding, lithology.		Upper Cambrian.
Age of mineralization ...	Late Cretaceous-Tertiary.	Rock relationships	Sanded dolomite, ore in fractures, lies under ore (Windfall ore body).
Mineralized zone aver- age dimensions, m:			Shale, ore in fractures, lies above ore.
Length	About 2,000.		Jasperoid, contains ore (Rustler ore body).
Width	30 to 60.		Oligocene intrusive and extrusive rhyodacite, lies near ore, lies above ore (ore bodies localize along shale-dolomite contact).
Thickness	>300.		
(Rustler ore body—400 m by 200 m by 300 m deep).		Size	Small.
Mineral names	Free gold, silver, iron oxides, arsenopyrite, kaolinite, jasperoid, quartz, calcite.		

DEVELOPMENT

Current status	Active-producer.	Distance to water supply ...	6.5 km to wells.
Type of operation	Surface.	Distance to power supply ...	3.2-km electric transmission line installed.
Mining method	Open pit; multiple bench (3 m); about 320,000 t/a ore.	Mill location	On-site.
		Mill status	Active.
Year of discovery	1902 or 1908; rediscovered in 1974 by Idaho Mining Corp.	Milling method	Cyanide heap leach, carbon adsorp- tion, electrolysis, smelting.
Discovery method	Geochemical anomaly (1974); drilling.	Process rate	1,100 t/d (1,250 ton/d) (1980).
Initial production	1975.	Product type	Dore bullion (60% Au, 30% Ag).
Last production	1983.		
Past production	About 59,000 t ore, 10 g/t Au (1908–19) (232); published production of recent years is unavailable.		
Annual production rate .	Reported 200 kg (5,000 tr oz) Au from leaching about 320,000 t ore (1982)		

PUBLISHED RESERVES-RESOURCES

Class	Quantity	Grade	Year	Reference
1..Proven and indicated	3,000,000 tons	0.03 tr oz/ton Au	1975	805

REFERENCES

80, 83, 232, 365, 378, 412, 518, 520, 522, 552,
593, 692, 775, 805.

USGS quad maps

Ely, 1:250,000.
Pinto Summit, 15'.
USBM sequence number

0320110142.
Mid number

2600891.

Comments: The Hamburg Dolomite is the principal host. The Windfall Mine reopened and shut down again in 1983. As a result of the permeable texture of the Windfall ore, it was not necessary to crush it prior to heap leaching. Pond irrigation (rather than sprinkler irrigation) enables year-round leaching operations. The Windfall ore body is depleted, the Rustler ore body is being mined, and the Paroni ore body is being developed.

Information Circular 9035

Principal Deposits of Strategic and Critical Minerals in Nevada

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