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ITEM 23

SANTA FE—GOLD

Alternate names: None

Commodities: Au, Ag
(Au-Ag ratio = 1:15)

LOCATION-OWNERSHIP

County	Mineral.	General location	About 42 km east of Hawthorne.
Mining district	Santa Fe.	Meridian	Mount Diablo.
Elevation	1,490 m.	Tract	Sec. 2, T 8 N, R 34 E.
Topography	Hilly.	Latitude	38°35'05" N.
Domain	BLM administered.	Longitude	118°09'20" W.
Owner	Westley Mines Ltd., Vancouver, BC, Canada, 82%; Brican Resources Ltd., Vancouver, BC, Canada, 18%; (1984).		
Operator	Lacana Mining Corp., Reno, NV (will earn 51% interest by late 1985 if presently held agreement conditions are met) (1984).		

GEOLOGY

Type of ore body	Disseminated, epithermal, replacement in breccia fill.	Host formations	Guild Mine Member of Mickey Pass Tuff.
Origin	Hydrothermal.		Pamlico.
Shape of ore body	Irregular, pipelike.	Geologic ages	Oligocene.
Ore controls	Faulting, lithology.		Triassic.
Strike and dip of mineralized zone.	N 30° to 40° W: 75° to 80° NE.	Rock relationships	Rhyodacite tuff (densely welded), above ore, encloses ore.
Age of mineralization ...	Miocene.		Limestone (medium-grained), encloses ore, lies along ore, below ore.
Mineralized zone average dimensions, m:			Jasperoid breccia, is ore.
Length	530 to 1,100.	Alteration	Silicification, carbonitization, sericitic.
Width	120.	Size	Small.
Thickness	>300.		
Mineral names	Gold, silver, pyrite, quartz, jasper, chalcedony, carbonaceous material, sericite, kaolinite, stibnite, hematite, barite, calcite.		

DEVELOPMENT

Current status	Active-feasibility.	Distance to water supply ...	Unknown.
Type of operation	Surface.	Road requirement	0.8 km.
Mining method	Open pit proposed (300 m long by 60 wide).	Distance to power supply ...	Unknown.
		Mill location	On-site (planned).
Year of discovery	Claims first staked early 1960's.	Mill status	Feasibility study—1983.
		Milling method	Cyanide heap leach anticipated; small scale, on-site heap leaching was planned for 1984.
Annual production rate ..	590,000 t/a ore anticipated as minimum throughput.		

PUBLISHED RESERVES-RESOURCES

Class	Quantity	Grade	Year	Reference
1..Not reported in reference	4,380,000 tons	0.082 tr oz/ton Au; 1.22 tr oz/ton Ag	1981	690
2.. Do	5,000,000 tons (oxide) ...	0.04 tr oz/ton Au; 0.45 tr oz/ton Ag	1984	657
	4,500,000 tons (sulfide) ..	0.066 tr oz/ton Au; 0.9 tr oz/ton Ag	1984	657
3.. Do	7,000,000 tons (oxide) ...	0.041 tr oz/ton Au; 0.45 tr oz/ton Ag	1984	786
4.. Do	6,900,000 tons (oxide) ...	0.048 tr oz/ton Au	1984	531

REFERENCES

86, 130, 196, 463, 503, 523, 531, 598, 650, 657, 690, 786.	USGS quad maps	Walker Lake, 1:250,000.
		Luning, 7.5'.
	USBM sequence number	0320210280.
	USGS MRDS number	W016420.

Comments: Gold and silver occur within a pyritic jasperoid replacement of brecciated carbonate and volcanic rocks. By December 1982, drilling had not defined bottom of mineralized pipe. In June 1983, Westley Mines Ltd. was carrying out feasibility studies into the development of an open pit mine using heap leach for metal recovery.

Information Circular 9035

Principal Deposits of Strategic and Critical Minerals in Nevada

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