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REPORT ON THE WOLF PROPERTY

Prepared for

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OMINECA MINING DIVISION

NTS 93F / 3W

Prepared by

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SUMMARY

The Wolf Property was acquired by Lucero Resource Corporation after an extensive investigation of properties which had the overall size and potential to host a new gold mining district in Canada. This large property consists of nine contiguous claims totalling 136 units or 8500 acres, located in moderate, forested terrain about 115 kilometers south of Burns Lake in central British Columbia. Road acess via 150 miles of logging road from the northern Trans-Provincial Highway at Vanderhoof is currently within ten kilometers of the property. Construction of this remaining access road can be easily accomplished.

The property was discovered by Rio Algom Explorations Inc. (now Lornex Mining Corporation) in 1983, during the course of a regional lake sediment sampling programme. Subsequent work by this company in 1984 and 1985 included soil and rock sampling, geological mapping, VLF-EM surveys, as well as limited trenching and diamond drilling.

The claims are underlain by subaerial rhyolitic to andesitic flows, pyroclastic and epiclastic rocks of the Tertiary Ootsa Lake Group. Several north to northeast-trending silicified epithermal zones have been outlined on the property. The silicified zones are characterized by chalcedonic to microcrystalline quartz veins and stockworks which contain anomalous to significant gold and silver values. Gold/silver values in rocks correlate with silver anomalies in soils.

It is believed that the geological setting and style of mineralization at the Wolf Property can be compared to other Tertiary epithermal deposits in British Columbia, and is analogous to volcanic hosted, epithermal precious metal deposits found in some of the large districts of the western United States (for example, Paradise Peak, 10 million tons grading 0.1 cz gold and 3.0 oż silver per ton; and Round Mountain, 12 million tons grading 0.06 oz gold and 0.07 oz silver per ton).

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Work on the Wolf Property to date has identified two potential target types:

(a) High grade vein deposits, for example the Ridge Zone, where trench sampling returned values of 8.49 grams/tonne gold (0.25 oz/ton) and 42.2 grams/tonne silver (1.25 oz/ton) over 7.5 meters (24.7 feet);

(b) Large tonnage, lower grade, open pit deposits, as in the Pond Zone where sampling over widths of up to 30 to 40 meters (100 - 130 feet) over strike lengths of at least 350 meters (1155 feet) encountered consistently anomalous gold values with assays up to 0.06 oz gold/ton.

A two-phase exploration programme is highly recommended by the writer to further evaluate the property. The first phase, which will include access road construction, extensive trenching, as well as rock and soil sampling, is estimated to cost \$179,463.00. Phase II, contingent upon the success of Phase I, will consist of additional trenching and diamond drilling at an estimated cost of \$301,400.00.

INTRODUCTION

Lucero Resource Corporation has commissioned L. Riccio to compile this report on the Wolf Property, synthesizing the work carried out to date and recommending an appropriate exploration program for further evaluation.

This report is based on a field examination carried out on July 15, 1986 and a review of all available literature.

LOCATION, PHYSIOGRAPHY AND ACCESS

The claims are located in central British Columbia, 115 kilometers south-southeast of Burns Lake, between Entiako and Johnny Lake. The claims are centered at 53°12'N latitude and 125°27'W longitude (Figure 1).

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The claims are located in moderate to rolling terrain at elevations ranging from 975 meters to 1350 meters. A forest cover of immature jack pine mantles the property.

Present access to the property is by helicopter from Burns Lake or Prince George. The Kluskus Road, one of many logging roads originating in Vanderhoof, leads to within 10 kilometers of the eastern boundary of the claim block. The extension of this road to the property is relatively easy and will be completed during the first phase of exploration.

PROPERTY AND OWNERSHIP

The Wolf Property consists of nine claims totalling 136 units (Figure 2). The claims are recorded as follows:

Claim Name	No. of Units	Record Number	Date Staked	Date Recorded	
Wolf	20	5565	13 Jul '83	18 Jul '83	
Wolf 2	9	5566	15 Jul '83	18 Jul '83	
Wolf 3	12	5567	14 Jul '83	18 Jul '83	
Wolf 5	20	6676	23 Sep '84	26 Sep '84	
Wolf 6	8	6677	22 Sep '84	26 Sep '84	
Wolf 7	15	6678	23 Sep '84	26 Sep '84	
Wolf 8	12	667 9	22 Sep '84	26 Sep '84	
Wolf 9	20	6680	21 Sep '84	26 Sep '84	
Wolf 10	20	6681	22 Sep '84	26 Sep '84	

The registered owner of the claims is Rio Algom Explorations Inc.

HISTORY AND PREVIOUS WORK

The Wolf claims were located by Rio Algom Explorations Inc. as a result of anomalous silver values (2.1 ppm) in lake sediments in the area. Subsequent follow up work (Spence, 1983) consisting of soil and rock geochemical sampling on three grids led to the discovery of anomalous gold (up to 9700 ppb) and silver (up to 65 ppm) values associated with northnortheast trending silicified epithermal zones.

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Field work in 1984 (Cann, 1984) included geological mapping, soil sampling over extensions of previous grids, chip sampling of silicified zones, trenching and additional staking (seven claims). Trench samples from the Ridge Zone assayed up to 8.49 grams/tonne gold and 42.4 grams/tonne silver over 7.5 meters. Chip sampling at other localities led to the discovery of several additional areas of multiphase silicification with accompanying gold and silver mineralization.

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The 1985 program (Holmgren and Cann, 1985) was aimed at drill testing the Ridge Zone, evaluating overburden-covered areas in the vicinity of this zone using geophysics and trenching, and investigating the eastern portion of the property. Four holes totalling 344.1 meters drilled on the Ridge Zone did not intersect mineralization and indicated that the zone is truncated by a fault. Magnetic and VLF-EM surveys were only partially useful in tracing the zone, but did outline lithologic contacts. Rock sampling to the southeast of the Ridge Zone identified a new, large gold/silver-bearing zone (Pond Zone). Two exploratory holes (249.4 meters) drilled on the Pond Zone, confirmed the presence of anomalous gold and ailver values at depth. Geochemical and geological surveys on the eastern portion of the property outlined a 1.2-kilometer by 0.4-kilometer silver in soil geochemical anomaly, coinciding with outcrops of silicified rhyolite.

REGIONAL GEOLOGY AND MINERALIZATION

Basement rocks in the region are volcano-sedimentary sequences of the Upper Triassic to Lower Jurassic Takla Group (Figure 3). Takla Group rocks include basic volcanic flows, breccias and tuffs, with interbedded clastic sediments and minor limestone beds. The Takla Group is unconformably overlain by andesitic rocks and clastic sediments of the Middle Jurassic Hazelton Group. Both Takla and Hazeltoa group rocks are intruded by granitoid bodies of post Middle Jurassic age. Overlying the Mesozoic rocks are non-marine, Tertiary Ootsa Lake Group rocks, consisting of rhyolite, andesite and minor sediments. The Ootsa Lake Group is overlain unconformably by the non-marine, late

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Tertiary Endako Group, an essentially underformed succession of plateau basaltic flows, breccias and tuffs. The nature and distribution of Tertiary volcanic rocks in the region indicates that Tertiary volcanic activity took place in an extensional basin and range tectonic setting.

Mineral occurences in the region include copper-molybdenum porphyries genetically related to post Middle Jurassic granitoids and the bulk tonnage silver-lead-zinc (copper-gold) Capoose deposit. The latter is hosted by Hazelton Group volcanics.



PROPERTY

GEOLOGY

Geological compilations (Andrew et al, 1985) of the western and eastern portions of the Wolf Property are shown in Figures 4 and 5, respectively. Four assemblages and 12 map units have been recognized in the Western Claims (Figure 4). The 'basal' package of volcanic conglomerate felsic lapilli tuff and porphyritic andesite is characterized by steeply-dipping sedimentary and tuffaceous units, possibly reflecting proximity to a major ring fault. The 'pyroclastic' package consists of flatlying tuffs and K-feldspar - quartz porphyry and is interpreted as representing a tuff ring. The 'dome and vent' package is made up of rhyolite, commonly flow-banded and spherulitic, and related volcanic breccias of possible hydrothermat origin. The 'late stage and intrusive' package contains extrusive andesitic phases and intrusive rhyolite porphyry and quartz-eye porphyry.

MINERALIZATION, ALTERATION AND GEOCHEMISTRY

Mineralization at the Wolf Property consists of structurally controlled north to northeast trending, weakly to pervasively silicified, quartz-vein/stockwork zones, apparently restricted to the youngest er stratigraphically highest units. The silicified zones display typical epithermal features such as microcrystalline to chalcedonic silica, drusy and vuggy quartz, and multistage veining. Weak argillic and sericitic alteration is found within silicified zones. All mineralization zones are characteristically sulphur-poor, and are not appreciably anomalous in either high level elements (As, Sb, Hg) or base metals.

Work on the property to date has identified five areas of epithermal quartz veining containing anomalous to economic gold-silver values in rocks and several large silver in soil anomalies. The location of these mineralized zones and of the gold-silver geochemical anomalies is shown in Figures 4 and 5. A summary description of each zone is given below.

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The Ridge Zone is a north-northeast trending silicified zone 0 extending for 200 meters before disappearing beneath overburden to the north. Thirteen trenches, hand-blasted over an area 60 meters long and 30 meters wide, have uncovered moderately to severely brecciated quartz-eye tuff. Highly brecciated portions are intensely silicified and cut by a network of anastomosing chalcedonic and microcrystalline quartz veins. Visible mineralization in all trenches ranges from nil to one percent pyrite. Gold and silver values correlate positively with the degree of brecciation, silicification and Best trench assays (Trench No.6) are 8.49 quartz veining. grams/tonne gold and 42.2 grams/tonne silver over 7.5 meters and 13.58 grams/tonne gold over 1.7 meters. Drilling beneath the mineralized zone (four holes totalling 344.1 meters) failed to intersect the mineralized surface material. Drill data indicate that the mineralization (?) is cut off by a shallow-dipping fault whose surface expression is probably a gully immediately west of the trench area.

Sample descriptions and analytical results from rocks and soils collected by the writer from the Ridge Zone are given in Appendices 1 and 2 respectively. It is important to note that the two soils collected immediately above trench material assaying around 10 grams/tonne gold are NOT anomalous in gold (5 ppb Au). On the other hand, both soils are enriched in silver (2.6 and 7.3 ppm Ag). The importance of this fact is that previously, the absence of gold in soils, whether silver was present or not, was taken as a negative indicator. Thus potentially promising areas were not investigated further. This new evidence makes it essential to re-examine for gold those areas where soils report only anomalous silver.

• The **Pond Zone** is a northeast to north trending, 350-meter long, 30-to 40-meter wide, silicified zone, located south and east of the Ridge Zone. The zone is underlain by variably silicified and quartz veined feldspar-quartz porphyry, characterized by mutually crosscutting

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microcrystalline to chalcedonic quartz veins and bands or veins of bladed sinter-like white silica. Detailed chip sampling over an area 160 meters long and 50 meters wide returned values averaging several hundred ppb gold and three to four ppm silver, with individual values as high as 2200 ppb gold and 38.6 ppm silver. Two holes drilled under this zone intersected similar grades over core lengths in excess of 50 meters. The Pond Zone is open to the south as indicated by highly anomalous silver in soil values (up to 5.0 ppm) occuring along the southernmost line of grid 3.

• The Lookout Zone is a northeast trending, 150-meter long and 30- to 40-meter wide zone of irregular chalcedonic quartz veining cutting maroon crystal tuff. Rock chip sampling to date has returned weakly anomalous gold (30 to 40 ppb) and silver (less than 1 ppm) values. The best single assay from this zone was 2.1 grams/tonne gold and 20.5 grams/tonne silver.

The Chopper Pad Zone is a north-northeast trending, rhyolite-hosted, silicified zone, lying on the eastern margin of a broad silver in soil geochemical anomaly, covering an area 400 meters long and up to 300 meters wide. Chip sampling over a weakly quartz veined zone, 130 meters long and 20 to 40 meters wide, has failed to encounter appreciable gold or silver values. The sampled area is located on a small ridge surrounded by low-lying terrain devoid of outcrop. Consequently, the cause of the large silver in soil geochemical anomaly remains unexplained.

• East Grid Anomalies - Several large silver in soil geochemical anomalies characterize the East Grid area (Figure 5). The anomalies are mainly restricted to a weakly quartz-veined rhyolite porphyry unit (Unit 11). Preliminary sampling has identified a few anomalous silver values (0.7 to 2.5 ppm) with no corresponding gold values.

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CONCLUSIONS AND RECOMMENDATIONS

The Wolf showings are believed to represent the first reported discovery of significant epithermal gold-silver mineralization within Tertiary Ootsa Lake Group rocks. Similar geologic settings, age and style of mineralization are also found at the Blackdome and Dusty Mac gold-silver deposits in southern British Columbia, as well as at much larger deposits located in the western United States, for example, Paradise Peak and Round Mountain, Nevada.

Work to date has identified five mineralized zones and several silver in soil geochemical anomalies. Trench samples from one of these mineralized zenes (the Ridge Zone) returned economic precious metal values (8.49 grams/tonne gold, 42.2 grams/tonne silver) over mineable widths (7.5 meters). Although drilling beneath this zone failed to encounter economic mineralization, the faulted off portion of the mineralized system and its extension along strike remain to be investigated. At the Pond Zone, anomalous gold values (200 to 500 ppb gold) occur at surface and have been intersected in drill core over significant lengths (greater than 50 meters). The Pond Zone is open to the south and silver in soil geochemical values indicate that grades may increase in that direction.

It is the writer's opinion that this property has considerable potential for bonanza and bulk-tonnage gold-silver deposits. Aims of the proposed exploration program are to 1) investigate silicified zones and geochemical targets outlined by previous work, and 2) to evaluate overburden-covered areas. In order to accomplish these objectives, it is imperative that an access road branching off the Kluskus legging road be built into the property. This should be followed up by an extensive Phase I program of trenching, mapping, prospecting, rock sampling and silver soil geochemistry in selected areas. A contingent Phase II program should consist of additional trenching and diamond drilling.

The work by Rio Algom Exploration Inc. has so far focused on areas of outcrop along ridge tops. Furthermore, the exploration programs have been somewhat hampered by difficult access and heavy forest cover. The completion

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of the road access will open up this large property for the more thorough investigation it definitely warrants.

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Cost estimates of the investigation are summarized below.

COST ESTIMATES

Phase I

Road Construction (15 km @ \$6000/km)	\$ 90,000	
Cat & Backhoe Trenching	15,000	
Soil Samples (1000 @ \$6/sample)	6,000	
Rock Samples (500 @ \$10/sample)	5,000	
Personnel (4 X \$200 X 40 days)	32,000	
Supervision	5,000	
Camp Costs, Food, etc.	 10,000	\$ 163,000
Contingency @ 10%		 16,300
		\$ 179,463
Phase II		
Cat & Backhoe Trenching	\$ 20,000	

200,000

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24,000 10,000

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NQ Diamond Drilling (2000 m @ \$100/m)

Assays (1000 samples @ \$10/sample)

Supervision and Report Preparation

Personnel (2 X \$200 X 60 days)

Camp Costs, Food, etc.

Contingency @ 10%

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- Tipper, H. W. (1963): Nechako River Map-Area, British Columbia. Geological Survey of Canada Memoir 324, 59 pp.

APPENDIX 1

ROCK AND SOIL SAMPLE DESCRIPTIONS: SAMPLES COLLECTED BY

L RICCIO

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ROCK AND SOIL SAMPLES COLLECTED BY L. RICCIO

Sample No.	Description						
88713	8-centimeter piece of s plit drill core from 16.2 meters in Drill Hole No.2.						
88714	5-centimeter piece of split drill core from 46.8 meters in Drill Hole No.1.						
88715	6-centimeter piece of very friable black argillite with finely-divided pyrite from 48.5 meters in Drill Hole No.1.						
88716	8-centimeter piece of split drill core from 57.3 meters in Drill Hole No.6.						
88717	6-centimeter piece of split drill core - black pyritic siltstone from 49.2 meters in Drill Hole No.1.						
88718	Selected sample of heavily-veined, altered rhyolite from Trench No.4, Ridge Zone.						
88719	Grab sample from high grade zone in Trench No.4, Ridge Zone.						
88720	Grab sample form lower grade quartz stockwork area in Lookout Zone.						
88721	Grab sample from area approximately 300 meters south of Pond Zone; altered and silicified rhyolite with 30% veining by chalcedonic silica.						
88722	Selected sample from 'higher grade material' in Trench No.1, Ridge Zone.						
88723	Grab sample from moderately silicified and veined rhyolite in Trench No.7, Ridge Zone.						
88724	Grab sample from heavily silicified and veined rhyolite in Trench No.7, Ridge Zone.						
88725	Grab sample from Trench No.3 in Ridge Zone; silicified rhyolite with chalcedonic quartz stockwork and abundant black limonitic pitch in vuggy zones.						
Т6	Soil collected over highly auriferous portion of Trench No.6, Ridge Zone.						
Τ7	Soil collected over highly auriferous portion of Trench No.7, Ridge Zone.						

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5ample Number	AG PPM	HG PPB	as Ppm	AU PPB	SB PPM	
88713	1.3	160	23	190	1	
88714	1.5	195	50	5	1	
88715	2.2	120	68	10	1	
88716	4.0	105	23	35	1	
88717	2.4	135	48	5	1	
88718	128.0	110	12	8500	1	
88719	61.5	100	27	8750	1	
88720	2.3	60	13	50	1	
88721	3.9	65	5	1200	2	
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