

DATE: March 27, 1991  
A TO: Alex Davidson  
COPIES A COPIES TO: Ian Pirie, Dave Heberlein, Ross Weeks  
DE FROM: Cam Clayton  
SUJET SUBJECT: Sprout Property Submittal near Savona, B.C.

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SHOREHAM RESOURCES, INC  
PROPERTY SUBMITTAL  
SAVONA AREA, B.C.

**TARGET: EPITHERMAL BASE AND PRECIOUS METAL DEPOSITS;  
LARGER TONNAGE PORPHYRY MINERALIZATION**

**Current Status:** The Sprout property consists of the Sprout 89 (20 units), SMH 1 (4), SMH 2 (6), Nevada 1 (1), Nevada 2 (1), Carlin (15), Carlin (18), Carlin 3 (20), and Purple Giant (15) claims totalling 100 units. The property is currently owned by CRC Explorations Ltd under option to Shoreham Resources, Inc. One year remains on a two year work agreement of \$150K over 2 years (leaving a work commitment of approximately \$95K for this year).

**Geology:** The property is underlain by Triassic Nicola Group intermediate to mafic volcanics intercalated with conglomerate and siltstone. Syenitic quartz-eye porphyry stocks of Jurassic-Cretaceous age have intruded Nicola. In addition, early Tertiary intrusion has accompanied laterally extensive faulting and brecciation that has occurred along the Sabiston Creek fault which crosses the Sprout group of claims. Carbonate and siliceous alteration zones are associated with major faults and related lineaments in areas where Tertiary intrusives are present. Siliceous zones show typical epithermal chalcedonic veining, chalcedonic breccias, and quartz stockworks.

**Area Deposits:** Mercury deposits are the prevalent deposit type in this area occurring in a 14 km wide, 39 km long belt extending from Tunkwa/Dominic Lakes in the south to Criss Creek in the north. Mercury occurs as cinnabar with associated stibnite, galena,

tetrahedrite, malachite, azurite, chalcopyrite, pyrite, and gold.

Twelve kilometres southeast of the Sprout Property is Greenstone Mountain, a porphyry Cu-Mo(Au) property.

Mineralization is related to extensive brecciation, silicification, ankeritization, and dolomitic veining and alteration within shear and fracture zones. The host rock is Nicola Group as well as Late Cretaceous sedimentary and volcanic rocks.

**Previous Work:** This area has been explored for mercury and base and precious metals since the late 1800's. During 1982 Newmont Exploration conducted a program of soil sampling after discovery of a wide band of altered and silicified volcanics which returned up to 0.23 oz/t Au/1 metre. The soil sampling outlined zones which contained Hg in excess of 1000 ppb. This work was not recorded as assessment.

In 1990 Shoreham Resources Ltd carried out work for C.R.C Explorations Ltd on the Sprout property. This consisted of establishment of 4.9 kilometres of grid which was subsequently soil sampled (total of 162 samples). After the initial work in-fill sampling was completed to extend grid lines 200 metres west to cover possible structures.

### **Results:**

**North Grid:** Results from the north grid indicate three northwesterly trending gold-in-soil anomalies. In-fill work more precisely defined the extent of the soil anomalies. The best anomaly, Anomaly A, ranges in values from 20 ppb to 2280 ppb and extends from line 104N to approximately line 95N, a distance of 900 metres. On lines 100N, 101N, and 102N this anomaly has a width up to 200 metres. Other pathfinder elements such as As, Hg, B, Sr, Ca, Mn, and Ag showed anomalous results coincident with, or paralleling the gold anomalies. Geologically, Anomaly A occurs down slope of the eastern margin of a Tertiary intrusion in contact

with Triassic Nicola Group volcanics. A coincident magnetic low (M4) is present extending from line 105N to line 97N.

Anomaly B, though weaker than Anomaly A, extends from line 104N to line 98N, a distance of 600 metres. Values range up to 890 ppb Au. Again, other pathfinder elements are present in anomalous amounts. As was the case for Anomaly A, a coincident linear magnetic low (M3) is present. These magnetic lows correspond to known zones of intense silicification. Anomaly B occurs down slope of this mag low feature. Between the two zones a strong magnetic high is present. The same style of magnetic response is noted over the Tertiary intrusion associated with Anomaly A.

The immediate area of the North grid is extensively faulted in a north-northwest direction. East-west cross structures may also be present, as inferred by ground VLF-EM geophysics.

**South Grid:** The grid was extended to the southeast along the trend of the soil geochemistry. Soil sample lines were spaced at 200 metre intervals. Results of soil sampling to the south were not as encouraging as on the north grid, however some weak geochemical trends are discernible. Closer spaced sample lines would provide better results. In general, geochemical trends are north-northwest following the break in slope and paralleling regional and property scale structures. The break in slope may be an extension of the splay of the Sabiston Creek fault along which mineralization occurs on the north grid. This break in slope extends the length of the property and may represent a broad fault zone. Copper and Au show a weak correlation, as do Sr and B. Soil anomalies are narrow and linear. Gold shows a low contrast defined by the 10 ppb contour with a maximum of 119 ppb. Anomalies range from 50 to 150 metres width, to 600 metres in length. There is no Hg data for the south grid. Ground geophysics shows similar patterns to those obtained on the north grid. Cross structures are evident from geophysics, and from the bi-directional nature of Sr and B in soils. These cross structures trend in a northwesterly direction.

**Other Notes:** Triassic Nicola Group volcanics are strongly propylitized in areas. Epithermal textures such as chalcedonic veining, and chalcedonic brecciation, as well as strong carbonate alteration are present. Disseminated galena and chalcopryrite are associated with silicified breccia. Chip samples of the breccia have returned values of up to 2 g/t Au (width unknown).

**Summary and Recommendations:** The Sprout property exhibits good epithermal, and porphyry characteristics in the way of alteration, associative rock types, and structure. Obvious Au and Cu geochemical trends with coincident, or parallel, pathfinder elements indicate several linear mineralized zones on the north grid downslope of intrusive contacts, major structures, and silicified zones. Mag lows indicate known silicified zones while EM conductors indicate north-northwest trending fault zones as well as east-northeast trending cross structures.

This property presents immediate targets which could be developed to the drilling stage with little exploration work. Epithermal and intrusive related mineralization are known to occur. To date, no I.P. geophysics has been completed on the property, and such a survey would help define drillable areas within the currently defined target zones. By comparison, the Last Chance project, while having a good conceptual model, lacks geochemical and mineralogical evidence of any large Au or Cu bearing system. The Sprout property should be considered for acquisition, possibly as a replacement for Last Chance. Dave has arranged for a meeting with the owner's during the KEG early in April at which time we will tour the property and offer a final recommendation.