GEOLOGICAL REPORT

ON THE

LUCKY PROPERTY

Alberni Mining Division Vancouver Island British Columbia

FOR

ALCOVE GOLD CORPORATION

BY

N.C. CARTER, PH.D. P.ENG. June 15,1988

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INTRODUCTION

Alcove Gold Corporation has entered into an agreement to earn an interest in the Lucky gold property on the west coast of Vancouver Island, British Columbia.

This report, prepared at the request of Alcove Gold Corporation, is based on personal examinations of parts of the Lucky property

May 16 and July 7,1984 and a more recent examination December 12,

1987.

The writer prepared a geological report on the Lucky property for project operator Freemont Gold Corporation dated May 27,1987 which summarized results of previous exploratory work. Reports of work carried out by Freemont in the latter half of 1987 and early 1988 have been reviewed and are incorporated in this report.

LOCATION AND ACCESS

The Lucky property is situated on the southwest coast of Vancouver Island (Figure 1) at latitude 49°05' North and long-itude 125°17' West in NTS map-area 92F/3.

The mineral claims, 22 km northeast of Ucluelet, are accessible via Highway 4 from Port Alberni and logging roads between Kennedy Lake and Toquart Bay (Figure 2).

The Lucky vein, one of the principal showings on the property, is accessible by helicopter and a 1.5 km trail from the end of a logging road north of Toquart Bay (Figure 3). The southwest part of the property, including the Ridge zone, is accessible by recent

logging roads extending southeast from the Toquart River bridge while the southern claims can be reached by boat from Toquart Bay and Pipestem Inlet.

MINERAL PROPERTY

Alcove Gold Corporation has the right to earn a 15% interest in Freemont Gold Corporation's option agreement with respect to 4 2-post claims, 2 fractional claims and 25 Modified Grid mineral claims, all totalling 361 mineral claim units in the Alberni Mining Division on Vancouver Island.

All mineral claims, with the exception of the Base 1 and 2 2-post claims staked to cover a possible fraction along the mutual boundary of the KW and KT claims, are shown on Figure 3 and details are as follows:

Claim Name	Record Number	Units	Expiry Date
Lucky 81	1365	1	October 7,1989
Lucky 82	1366	1	11 11
Lucky Fr.	1369	_	February 15,1989
Lucky 2 Fr.	1370	-	11
⊬ KX	1555	9	November 24,1988
νKZ	1557	12	17 11
∕ KS	1818	4	August 2,1989
✓ KT	1819	4	" 1990
√ KU	1820	6	" 1989
∨ K₩	1821	20	" 1990
KM	1866	20	October 7,1989
KN	1867	20	" "
√ KQ	1869	18	п п
TOQ 1	3090	10	December 22,1988
TOQ 2	3091	20	11 11
TOQ 3	3092	18	ę 9 91
TOQ 4	3093	20	f4 f4
TURRET	3094	20	11 11

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Claim Name	Record Number	Units	Expiry Date
OYSTER 2	3095	8.	December 22,1988
✓ PEAK	3096	12	11
uKL	3158	20	March 16,1991
OYSTER 1	3159	18	" 1989
¹ KO	3160	18	81 11
KP	3161	18	26 31
KR	3162	18	11 11
√OYSTER 3	3163	6	" 1990
∠ KY	3237	9	May 29,1991
ν WICK	3238	12	_ H _ H
√ KV	3242	20	June 2,1991
√ Base 1	3430	1	January 14,1989
Base 2	3431	1	

Expiry dates are as provided by Freemont Gold Corporation and the mineral claims are believed to have been located pursuant to procedures as specified by the Mineral Act Regulations of the Province of British Columbia. No claim posts or lines have been examined by the writer.

PHYSICAL SETTING

The Lucky property exhibits physical features typical of the west coast of Vancouver Island.

The entire claim area is heavily forested with abundant underbrush and deadfalls with the exception of recently logged areas. This coupled with locally rugged topography and limited number of landing sites makes access to parts of the present claims area difficult.

Elevations range from sea level to more than 1100 metres in the northern part of the property. Much of the claims area is drained by Lucky Creek along which are three small lakes - Handsome, Kite and Ellswick (Figure 3).

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agreement was negotiated by Freemont Gold Corporation in mid-year. Alcove Gold Corporation subsequently entered into an agreement with Freemont, who as operator undertook a \$150,000 exploration program consisting of line cutting, VLF-EM and magnetometer surveys over 17 km of grid, soil and rock geochemistry, geological mapping and prospecting. Samples collected were analyzed for 30 elements by ICP methods, gold by geochemical fire assay and mercury by flameless atomic absorption at Min-En Laboratories in North Vancouver.

Alcove Gold's share of exploration expenditures to the end of April,1988 exceeds \$60,000.

REGIONAL GEOLOGY AND MINERALIZATION

Vancouver Island makes up the southern part of the Insular belt, the westernmost tectonic subdivision of the Canadian Cordillera. The southern Insular belt is dominated by Paleozoic and Mesozoic volcanic-plutonic complexes overlain on the east coast of Vancouver Island by clastic sedimentary rocks of Cretaceous age. Tertiary basic volcanic rocks are prevalent in the south Island area and granitic intrusions of similar age are widespread along the west coast.

Vancouver Island hosts a variety of mineral deposits, including volcanogenic massive sulfides at Buttle Lake and near Duncan, which are hosted by late Paleozoic Sicker Group volcanic rocks. Island Copper near Port Hardy is a porphyry copper-molybdenum deposit with significant by-product gold and which is related to

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3 set-ups over a potential strike interval of 110 metres. The first two holes were drilled 20 metres north of the end of the upper adit. The deeper of these intersected 0.38 metres of quartz vein grading 0.068 oz/ton gold 13 metres vertically below the adit level. Three holes drilled below the central section of the adit each intersected more than one quartz vein; values ranged from 0.005 to 0.054 oz/ton over 0.21 to 0.46 metre core lengths.

Best values were obtained from two holes drilled on an azimuth 4 metres south of the adit portal. The upper hole of intersected two parallel quartz (carbonate) veins and altered wallrock over a core length of 1.2 metres with an average weighted grade of 0.152 oz/ton gold. The deeper hole on the same section, 16 metres vertically below the adit level, intersected 0.75 metre of quartz vein with visible gold assaying 1.680 oz/ton gold. Bleached mafic rocks marginal to the vein yielded 0.012 and 0.016 gold over 0.83 and 1 metre core lengths, with a total core length of 2.58 metres having a weighted average grade of 0.498 oz/ton gold. Assuming a near vertical structure, approximate true width of this intercept would be 1.25 metres.

Silver values in vein samples were found to be low, generally not exceeding 0.15 oz/ton.

Quartz feldspar porphyry dykes and sills were noted adjacent to veins in both underground exposures and drill core.

A 300 by 200 metre grid centred on the Lucky vein upper adit was used for geological mapping, soil geochemistry and VLF-EM and magnetometer surveys in 1985. Soil sampling at 10 metre intervals

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along 20 metre spaced lines led to the discovery of a narrow quartz vein parallel to and 45 metres west of the Lucky vein. Limited bedrock exposure indicates a strike length of at least 20 metres. No anomalous gold values were obtained from two samples collected by Falconbridge. High barium values of 4 to 10 times background were noted from soil samples in the area of the Lucky vein.

VLF-EM and magnetometer surveys in 1985 and 1987 (Sheldrake, 1988) over the grid confirmed the presence of a fault extending west-northwest from Ellswick Lake and immediately south of the Lucky adits.

Two several hundred ppb gold anomalies in stream sediment samples along this fault 600 metres northwest of Ellswick Lake were followed up by soil sampling over an expanded grid in 1987 (Zastavnikovich, 1988). A 510 ppb gold value, 150 metres north of the drainage and downslope from an extensive area of anomalous mercury values suggests the presence of another mineralized structure in this area.

Some 570 soil samples over the expanded grid east and west of the Lucky vein yielded interesting base metal and trace element values which warrant follow-up.

Ridge Zone

This zone, exposed principally in recent logging road cuts in the southern part of the KW claim in the southwest property area (Figure 4), was discovered by prospecting in the fall of 1987.

Sheared and brecciated Karmutsen volcanic rocks are exposed along logging roads and in a clear cut area at the top of a ridge at about 500 metres elevation. The axis of the zone, which is up to 150 metres wide, is bracketed by quartz feldspar porphyry and diorite dykes which are relatively massive and unaltered

Overall structural trend is west-northwest, parallel to the fault zone south of the Lucky vein 1.5 km northeast (Figure 4). This general trend is corroborated by VLF-EM and magnetometer data collected in late 1987 (Sheldrake, 1988). Previous airborne geophysics indicates a potential strike length for the zone of several km.

At the top of the ridge in the clear cut area, brecciated, bleached and iron-stained Karmutsen volcanics contain up to 20% pyrite with numerous narrow quartz stringers and some jasper.

390 soil and 120 rock samples were collected from the Ridge zone in 1987 (Zastavnikovich,1988). Soil samples from the clear cut area at the top of the ridge yielded low values for most elements. Rock samples from the same area yielded low precious metals values but up to 4000 - 5000 ppb mercury and anomalous values in barium, strontium, copper, potassium, magnesium, sodium and manganese.

Rock samples of herrow quartz veins in road cuts over an 800 metre distance to the northwest and a vertical range of 400 metres yielded three gold values ranging from 690 to 1820 ppb. Anomalous silver values of up to 18.7 ppm and mercury to 17000 ppb are also present in rock samples from lower elevations and

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suggest a possible vertical zonation of element values.

Several other mineralized zones are known on the property (Figure 4). Some of these, Triple Creek, TOQ 3, Handsome Lake and Upper Nugget Creek, were further investigated in 1987 by analyses of heavy metal fractions of 92 rock, 15 stream sediment and 382 soil samples. A brief review of these and other zones is as follows:

Suicide Creek

A westerly striking, 0.3 metre wide quartz vein has been traced intermittently along Suicide Creek in the eastern property area (Figure 4). Assay values from float and bedrock samples range up to 0.06 oz/ton gold and 0.54 oz/ton silver with significant lead and zinc values.

Handsome Lake

Siliceous volcanic rocks or possibly intrusive sills are associated with limestones on the southwest side of Handsome

Lake (Figure 4). Numerous small skarn zones are developed in limestone and these contain varying amounts of magnetite, chalcopyrite and pyrite with elevated gold and mercury geochemical values.

Soil samples were collected in 1987 in the vicinity of a previous stream sediment sample which yielded 54 ppb gold.

Heavy mineral fractions showed strongly anomalous manganese

N.C. CARTER, Ph.D., P.Eng. CONSULTING GEOLOGIST (to 53590 ppm), 18.2 ppm silver, 83 ppm arsenic, 2814 ppm barium plus elevated cadmium, cobalt and molybdenum values and up to 7610 ppb mercury.

Triple Creek

Stream sediments in this area with coincident anomalous values in base metals, arsenic, cadmium and minor gold were found to be due to skarn zones and areas of quartz veining and silicification. One occurrence includes a 4 metre wide gossanous zone with zinc values in the several per cnet range developed in mafic volcanic rocks immediately below a limestone sequence. Numerous porphyry dykes were noted in this area.

Analyses of heavy mineral fractions of stream sediments collected in 1987 above and below the zinc occurrence indicated locally anomalous gold values with arsenic. Re-sampling of heavy mineral fractions in and near the zinc occurrence showed anomalous silver concentrations in excess of 30 ppm.

Mercury Creek

Two panned stream sediment samples from Mercury Creek 1.5 km north of Pipestem Inlet returned values of up to 47,500 ppb mercury. Follow-up work by Falconbridge in 1985 yielded only several hundred ppb mercury, still considered anomalous and possibly due to cinnabar in shear zones, a feature not uncommon in the area.

Interesting gold values were obtained in 1987 from heavy

mineral fractions of stream sediment samples.

Lucky Creek

Stream sediments and rocks collected east and west of Lucky Creek below Ellswick Lake have returned anomalous base metals and gold and silver values. Rusty maffic volcanic rocks near the mouth of the creek contain low gold values.

Prospecting in 1987 west of Lucky Creek located a 2 cm chalcopyrite vein.

TOQ 3

Two soil lines near the north boundary of the TOQ 3 claim indicated weak to strongly anomalous gold values of up to 500 ppb in -80 mesh fractions and up to 12700 ppb in heavy mineral fractions. While some enhancement of silver values was apparent, no other elements were found to be present in anomalous concentrations.

Upper Nugget Creek

One stream sediment sediment sample yielded 500 ppb gold and 1050 ppb mercury in the regular -80 mesh fraction.

Toquart Bay

Several rock samples of quartz-carbonate veinlets on the shore of Toquart Bay contain gold values in the 470 - 1380 ppb range.

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CONCLUSIONS AND RECOMMENDATIONS

Previous exploration work on the Lucky property has indicated two zones of potentially significant gold mineralization as well as a number of areas with geochemically anomalous gold values.

The two principal zones indicated by previous work include the Lucky vein and the Ridge zone. Work to date on the Lucky vein indicates gold values of up to several oz/ton over narrow widths. Diamond drilling south of the main adit level demonstrates that gold values persist to depth and that the width of the structure may be increasing with depth and along strike to the south. Additional diamond drilling is warranted.

Geophysical surveys have not proven to be effective in indicating possible extensions to the Lucky vein or identifying new vein structures. Detailed geochemical surveys however have indicated a possible new structure a few hundred metres west of the Lucky vein and additional surface investigation is required.

The newly discovered Ridge zone contains significant gold and silver plus pathfinder element values within an apparently extensive zone of brecciation and silicification. Additional surface work is required to define the limits of the zone prior to testing the known part of the zone by diamond drilling.

Other zones with anomalous geochemical values within the large property area warrant additional work but it is recommended that the next phase of work be directed to the Lucky vein and Ridge zones. Such work should consist principally of diamond drilling with additional surface work on the two zones to be

carried out preparatory to and concurrently with the drilling stage.

Access to the Ridge zone is possible by way of the existing logging roads but helicopter support will be required for the proposed drilling of the Lucky vein.

COST ESTIMATE

Diamond Drilling - 2000 metres @ \$100/metre	\$200,000.00
Geological mapping, geochemical sampling	\$25,000.00
Analytical costs	\$20,000.00
Helicopter support	\$7,500.00
Camp and support costs; travel	\$5,000.00
Engineering, supervision, reporting	\$10,000.00
Contingencies	\$32,500.00
Total	\$300,000.00

(Note: Alcove Gold Corporation's share - \$75,000.00)

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CERTIFICATE

- I, NICHOLAS C. CARTER, of Victoria, British Columbia, do hereby certify that:
- 1. I am a Consulting Geologist registered with the Association of Professional Engineers of British Columbia since 1966.
- 2. I am a graduate of the University of New Brunswick with B.Sc.(1960), Michigan Technological University with M.S. (1962) and the University of British Columbia with Ph.D. (1974).
- 3. I have practised my profession in eastern and western Canada and in parts of the United States for more than 25 years.
- 4. This report is based on public and private reports pertaining to previous work on the Lucky property and on visits to the property May 16 and July 7,1984 and December 12,1987.
- 5. I was a Director of Victoria Resource Corporation during the time that Company held an option on the Lucky property.
- 6. I have no interest, direct or indirect, in the Lucky property or in the securities of Alcove Gold Corporation or Freemont Gold Corporation.
- 7. Permission is hereby granted to Alcove Gold Corporation to use this report in support of a Prospectus, Statement of Material Facts or Filing Statement to be submitted to the British Columbia Securities Commission and the Vancouver Stock Exchange.

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Victoria, B.C. June 15,1988



