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Geological Report on the Ophir-Lade Property

Lade Peak-Badshot Mountain Area Revelstoke Mining Division B.C., Canada

For:

Sherrin Stewart 1240 Industrial Road Kelowna, B.C. V1Z 1G5

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Covering:

Ophir-Lade Claim Group

	Units	Record No.
Goldenville	1 cg	L 4720
Ophir	1 cg	L 4721
Olive Mabel	1 cg	L 4723
Foundation	1 cg	L 4725
Sherrin 1	18	2462 (9)
Fred 1	14	2506 (12)

Located:

Latitude 50°44' Longitude 117°20' NTS 82K/11W Elevation 5000' - 8400' (1524 m - 2560 m) Above Sea Level OLOGICAL BRANCH

Prepared By:

P. J. Santos, P. Eng. Anginel Resources Ltd. 626 - 9th Avenue Castlegar, B.C. V1N 1M4 Canada

Nov. 30, 1988

ASSESSMENT REPART

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1. SUMMARY AND CONCLUSION

On November 1, 1987 geological mapping and sampling were conducted on the Sherrin 1 claim and during the period September 4-6, 1988, geological mapping and sampling were conducted on the Fred 1 claim and Sherrin 1 claim, by P. J. Santos, P.Eng. which are located in the Revelstoke Mining Division of British Columbia.

Twenty three rock and ore samples were collected during 1987 and 1988 and analyzed by fire assay for gold and silver.

At least five northeast-trending, steeply dipping quartz veins and one northwest-trending vein were mapped and sampled and found to contain significant gold and silver. The quartz veins vary in thickness from 12" (30.5 cm) to 36" (91.4 cm) and the assays ranged from .066 oz per ton Au (2.26 gm/metric ton) to .87 oz per ton Au (29.83 gm/metric ton) and some low silver values.

The property has three gold potentials; (a) as veins, (b) as breccia zones, and (c) as intersections of two vein systems.

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A total expenditure of \$6,400.00 was spent to conduct this geological work on the property.

A program of diamond drilling is recommended to test the three gold potentials of the property.

A program of geological mapping and geochemical soil sampling is further recommended to assess the remainder of the property.

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2. INTRODUCTION

This report was prepared at the request of Sherrin Stewart, the principal owner of the Ophir-Lade Claim Group who resides at 1240 Industrial Road, Kelowna, British Columbia, V1Z 1G5.

Geologic mapping and ore sampling were conducted on the Sherrin 1 claim on November 1, 1987 and on the Fred 1 and Sherrin 1 claims on September 4-6, 1988, which were a continuation of the work done in August and September of 1987.

Vein exposure on outcrops, surface trenches, and underground workings were mapped and sampled during these periods.

Mickey Jones assisted the author on November 1, 1987 and Robert Hajdasz assisted the author on Sept. 4-6, 1988.

No LCP's (Legal Corner Posts) or claim lines of the old crown-granted claims were found but the LCP of the Sherrin 1 and Fred 1 claims were found during the geological study of the property. The area dealt with in this report are shown on Plate 5 in relation to the LCP.

- 3 -

2. INTRODUCTION

This report was prepared at the request of Sherrin Stewart, the principal owner of the Ophir-Lade Claim Group who resides at 1240 Industrial Road, Kelowna, British Columbia, V1Z 1G5.

Geologic mapping and ore sampling were conducted on the Sherrin 1 claim on November 1, 1987 and on the Fred 1 and Sherrin 1 claims on September 4-6, 1988, which were a continuation of the work done in August and September of 1987.

Vein exposure on outcrops, surface trenches, and underground workings were mapped and sampled during these periods.

Sherrin Stewart and Mickey Jones assisted the author on November 1, 1987 and Robert Hajdasz assisted the author on September 4-6, 1988.

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3. LOCATION AND ACCESS

The Ophir-Lade Property is located in the Lade Peak-Badshot Mountain area 12 aerial kilometers northeast of Ferguson in the Revelstoke and Slocan Mining Divisions of British Columbia (see Plate 1), on the highlands between the headwaters of Gainer Creek and Marsh Adams Creek at an elevation of 5000' (1524 m) -8400' (2560 m) above sea level. The property lies at latitude 50°44' and longitude 117°20' and is plotted on NTS 82K/11W (see Plate 2). The claims are largely on the Slocan Mining Division, but the LCP (Legal Corner Post) of both the Sherrin and Fred claims are on the Revelstoke Mining Division of British Columbia.

The topography of the property is moderate to very steep and mostly lies above the tree line and hence largely alpine with minimal timber cover. Ground access to the property is limited to a trail which reaches the eastern end of the property from the Triune Mine road east of Ferguson at 10-Mile. This trail was upgraded to a bulldozer trail in the early 1980's when the adjoining property was prepared for a drilling program which was subsequently not undertaken due to the recession that occured at that time.

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This is the same trail that the oldtimers used when the property was worked in the mid 1920's which leaves Ferguson 18 miles (28.8 km) away and follows the Lardeau River to 10-Mile, then follows Gainer Creek to the face of Badshot Mountain, then up the narrow valley between Badshot Mountain and Lade Peak to the alpine highlands. The only other access is by helicopter from either Castlegar, Nelson, or Revelstoke.

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4. PROPERTY DESCRIPTION AND HISTORY

The Ophir-Lade Property owned by a group headed by Sherrin Stewart consists of four (4) crown-granted claims and two (2) located claims totalling 32 claim units. These claims are plotted on Plate 2 and details are listed below:

<u>Claims</u>	Record No.	Area	Due Date
Goldenville cg. Ophir cg. Olive Mabel cg. Foundation cg.	L.4720 L.4721 L.4723 L.4725		June Annually June Annually June Annually June Annually
Sherrin 1	2462 (9)	18 claim units	Sept.25,1988
Fred 1	2506 (12)	14 claim units	Dec. 1,1988

The located claims, Sherrin 1 and Fred 1, overlap the crown granted claims and other claims on the northeast corner of the property. Except for the crown-granted claims, no legal surveys have been done on the property and therefore the exact acreage (or hectarage) included within this claim group is not available at this time. The property approximately covers a maximum of 32 claim units of approximately 800 hectares (1976 acres) which includes 74.08 hectares (183 acres) of crown-granted claims.

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The four crown-granted claims were originally part of a large group of 11 crown-granted claims which were either staked or controlled by the Lade brothers (Lade Peak was named after them) in the late 1890's. Work on the property was described as "spasmodic" prior to 1925. The 1905 Annual Report of the British Columbia Department of Mines records a stamp mill being operated for 12 months in 1904 and the property equipped with an aerial wire-rope tramway, compressor and power drills. It was probably at this time that most of the surface cuts and underground drifting were done. In 1924, the property was acquired by Goldenville Mines Limited of Vancouver, British Columbia which in 1925 did some development, built a trail from Gainer Creek up Bunker Hill Creek to the property, installed a stamp mill, concentrating table, and an oil engine and built a cabin beside these installations. A total production of 13 tons was recorded up to this time. From 1926 to the present, the property has essentially remained dormant. In 1950, four of the claims were crown-granted to Fred Beruschi of Revelstoke, British Columbia, the father of Sherrin Stewart. After his passing, the claims were inherited by his children Sherrin and her brother Fred.

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The area surrounding the crown-grants were staked by others, at one time. The Sherrin 1 and Fred 1 were staked as the Gainer, Piton, etc. Any work done if any on these claims are not known or available to this author. When these claims lapsed in 1987, the Sherrin 1 and Fred 1 claims were staked by Sherrin Stewart. The work done on the Ophir-Lade group of claims in 1987 and 1988 is the subject of this report.

5. REGIONAL GEOLOGY

The general geology of the area in which the Ophir-Lade Property is located is shown on Plate 3 which is taken from Bulletin No.45 by J. T. Fyles and G. E. P. Eastwood (1957).

The general area is underlain by rock units belonging to the Marsh Adams Formation, Mohican Formation, Badshot Formation, Lade Peak Formation, Index Formation, Triune Formation, and Ajax Formation.

The Marsh Adams Formation is a series of interbedded grey and brown quartzites, argillaceous quartzite and grey and black phyllites which underlie the Mohican Formation. This formation is exposed on the north-east side of the map area. The Mohican Formation consists of dark grey phyllite and black, argillaceous limestone lying between the Badshot and Marsh Adams formations. This formation is exposed on the north-east side of the map area.

The Badshot Formation, known locally as the "lime dyke" is a series of light grey, thick-bedded to massive, finely crystalline limestone with bands and small lenses of white to cream-colored marble. The Badshot is exposed as high wedge-shaped peaks extending for several miles along the formational strike on the north-east side of the map area.

The Lade Peak Formation is composed of limestone, argillaceous limestone, and limy phyllite with lenses of white marble which resembles closely the Badshot Formation and are tentatively correlated to each other. Limestones of the Lade Peak Formation comprise the mountain peak (Lade Peak) that occurs on the east end of the east side of the Ophir-Lade Property. The Lade Peak Formation occurs as the core of several isoclinal anticlines that trend to the north-west across the map area. The Index Formation consists of a thick sequence of grey and green schists, phyllites, and dark grey argillites together with thin bands of grey limestone and meta-volcanic rocks. This formation underlies most of the map area and overlies the Badshot and Lade Peak Formations.

The Triune Formation which overlies the Index Formation is comprised of black siliceous argillite which is commonly pyritic giving rise to rusty cliffs. These occur on the south-west side of the map area.

The Ajax Formation consists of massive and blocky, grey quartzites which is commonly cut by irregular quartz veins. This formation occurs on the south-west side of the map area.

The different rock formational units are tightly folded, forming distinctive bands that strike to the north-west. Badshot Mountain is essentially a tightly folded "cathedral anticline" with the limbs of the anticline dipping almost vertically. Lade Peak is also an anticline but with limbs less prominently dipping than the Badshot anticline.

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Jointing and faulting trend to the north-east essentially perpendicular to the formational strike. Breccia zones and quartz veins generally follow this trend.

6. LOCAL GEOLOGY AND MINERALIZATION

The Ophir-Lade Property is underlain principally by three formational units; the Badshot Formation, the Lade Peak Formation, and the Index Formation.

The Badshot Formation occurs on the north-east corner of the property. It is composed essentially of grey, thick-bedded limestone interlayered with white to cream-colored marble. This formation forms a tightly folded "cathedral anticline" that trends to the north-west.

The Badshot Formation is overlain by a thick sequence of green, chloritic schist, grey, micaceous argillites with thick bands of grey argillaceous limestone belonging to the Index Formation. Near the base of the formation are several thick beds of pyritic, green (when fresh) schists that are probably volcanic in origin, which weathers to light brown that form distinctive parallel bands, while the top of the formation are beds of black carbonaceous argillites. The Index Formation on the property also contains a high proportion of quartz boudins in boudinage structure, these are quartz lenses or layers that have undergone plastic deformation and are elongated along the direction of schistocity. This formation underlies most of this claim group.

The Lade Peak Formation resembles closely the Badshot Formation in that it consists primarily of grey fine grained limestone with bands of white marble. This formation is the core of anticlines that trend to the north-west across the property. The top of Lade Peak is composed of this limestone.

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The rock formations in the property are steeply dipping and tightly folded, the formational strike trending to the north-west. Jointing, brecciation, and faulting follow a north-east trend, essentially perpendicular to the formational strike.

Within the property are several quartz-healed breccia zones and within these breccia zones are parallel quartz veins dominant in a certain direction, usually to the north-east.

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Occuring with the quartz veins are masses, seams and disseminations of pyrite, ankerite, and siderite. Bismuthinite was reported by past workers but none were identified by this author. Gold occurs with the pyrite and occasionally as free gold flakes in the quartz.

Quartz veins (or boudins) are also found along the foliation and schistocity of the green schists and may contain disseminations and seams of pyrite.

The sampling done by the author appears to indicate that the gold occurs mainly with the quartz veins cutting across the schistocity, foliation, and bedding.

The assays of the chip samples taken by the author of the various veins and breccia zones exposed on the old workings, surface outcrops, and mine dumps are shown below and are plotted on Plate 4 and Plate 5.

Sample	Gold oz/ton (gm/metric ton)	Silver oz/ton (gm/metric ton)	, Remarks
21126 21127 21128	L.001 (L.001) L.001 (L.001) .043 (1.47)	L.01 (L.001) L.01 (L.001) .01 (.34)	Qtz along foliation Qtz material on talus Dump material at lower
21129 21130 21131	.266 (9.12) L.001 (L.001) .65 (22.29)	L.01 (2.01) L.01 (2.01) .32 (10.97)	adit Honey-combed quartz Qtz along foliation Composite workings above lower adit & at upper adit
21132	.377 (12.93)	.06 (2.06)	Qtz veins at trench above adit
21133	.223 (7.64)	.14 (4.80)	Qtz vein at trench above lower adit
21134	.066 (2.26)	L.01 (2.01)	Qtz vein at second trench above lower adit

	Gold oz/ton	Silver oz/ton	
Sample	(gm/metric ton)	(gm/metric ton)	Remarks
21135	.59 (20.22)	.14 (4.80)	Qtz vein at second trench above lower adit
21136	.46 (15.77)	.14 (4.80)	Qtz vein at upper adit
21137	.080 (2.74)	L.01 (2.01)	Dump, lower adit
21138	.151 (5.18)	.12 (4.11)	Tailings from mill
21139	.005 (.17)	.03 (1.03)	Flat quartz vein
21140	.002 (.07)	2.92 (100.11)	Flat quartz vein
21141	.035 (1.20)	L.01 (.34)	Breccia zone north of millsite
21142	1.86 (63.77)	.58 (19.88)	Panned mill tailings
21143	.004 (.14)	L.01 (2.01)	Mill tailings from wooden barrel
21144	L.001 (L.001)	.04 (1.37)	Qtz vein southeast of upper portal
21145	.87 (29.83)	.14 (4.80)	Massive sulfide, Lade adit
21146	.099 (3.39)	.04 (1.37)	Massive sulfide, end of Lade adit
21147	.095 (3.26)	.02 (.69)	Composite, trench east of Lade adit
21148	.406 (13.92)	.04 (1.37)	Composite, west end of Lade vein

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The chip samples of the quartz veins ranged from .066 per ton Au (2.26 gm/metric ton) to .87 oz per ton Au (29.83 gm/metric ton) over 18" (45.7 cm) to 24" (60.96 cm) of quartz vein.

The chip samples from the various mine dumps ranged from .043 oz per ton Au (1.47 gm/metric ton) to .223 oz per ton Au (7.65 gm/metric ton).

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Samples from the mill tailings assayed from .004 oz per ton Au (.14 gm/metric ton) to .151 oz per ton Au (5.18 gm/metric ton). A sample panned (by Mickey Jones) from the mill tailings assayed 1.86 oz per ton Au (63.77 gm/metric ton).

A composite sample taken from small veins crosscutting the schist assayed .035 oz per ton Au (1.20 gm/ metric ton) while a composite sample from the quartz boudins did not show any gold assay.

To the southwestern part of the crown-granted claims is a flat lying (25° dip) quartz vein three feet thick (one meter) which can be traced along strike for 1180 feet (360 meters). This quartz vein contains sparse disseminations and seams of pyrite. At one location galena is sparsely disseminated. The assays of the two samples taken from this vein are low in gold but one of the samples has a significant silver assay.

The gold potential of the property can be classed in the following types:

<u>Vein type:</u> High grade gold occurs in relatively narrow, parallel quartz veins that cut across the schistocity and foliation of the green schists.

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Breccia Zones: Gold occurs in guartz-healed brecciated zones. These zones give rise to a relatively low grade but higher tonnage deposit. Four of these zones were identified during the property examination. A fifth zone occurs on the ridgeline on the west side of Sherrin 1 claim, but was not examined on the ground. Intersection of There is a possibility that the flat lying quartz vein that outcrops to the Two Vein Systems: southwest of the millsite may intersect the breccia zones at depth resulting in a large, high grade zone.

7. RECOMMENDATIONS

A program of diamond drilling to test the three gold potentials is recommended on parts of the property that has been studied. An estimated footage of 5000' (1524 meters) should be sufficient for the initial tests. There is ample water draining from the glacier below Lade Peak for drilling purposes. Due to the poor accessibility, helicopter-borne equipment should be used.

For the remainder of the area within the claims a program of geologic mapping, sampling, and soil sampling followed by diamond drilling if warranted, is recommended which will take about three weeks. 8. STATEMENT OF COSTS AND DAYS WORKED

Geologist: 4 days field work @ \$450 \$1800.00 6 days research, drafting, report writing, & consulting @ \$250 1500.00 Assays and Freight 103.50 Labour Costs: Foreman No cost charged Labourer 4 X 14 X \$11.50 644.00 Draftsman 336.00 2 X 14 X \$12.00 Typing & secretarial 180.00 1160.00 \$1160.00 Camping Costs: \$ 276.00 3 X 45 X 1 2 X 45 X 3 270.00 \$ 405.00 405.00 Truck (4X4) Rentals 4 days @ \$40 160.00 4 days @ \$40 160.00 \$ 320.00 320.00 Materials, photocopying, blueprinting 45.00 Helicopter rental 1066.70 20% of \$5333.50 Total Costs \$6400.20 P. J. Santos, (Geologist) Nov. 1, 1987 Sept. 4, 5, 6, 1988 Nov. 25, 26, 27, 28, 29, 30, 1988
Sherrin Stewart (Foreman) Nov. 1, 1987 (No expenses charged)
Mickey Jones (Helper) Nov. 1, 1987
Robert Hajdasz (Geological Assistant) Nov. 1, 1987 Sept. 4, 5, 6, 1988 Nov. 25, 26, 27, 28, 29, 30, 1988
Karen Black (Typist-secretary)

Nov. 29, 30, 1988

9. BIBLIOGRAPHY

Fyles, J. T. and Geology of the Ferguson Eastwood, G. E. P. area, Lardeau District, 1962 British Columbia; British Columbia Department of Mines and Petroleum Resources Bulletin No.45, 92 pp Minister of Energy, Annual reports: 1898, p.1071; 1899, p.602,634; 1900, p.822; 1903, p.114,244; 1904, p.121; 1922, p.217,308; 1925, p.263; Mines, & Petroleum Resources, British Columbia 1932, p.25,159,182. Minfile NTS 82K -----1984 Santos, P. J. Preliminary evaluation of the 1987 Ophir-Lade Property, Revelstoke Mining Division, British Columbia, Canada 7 pp Application for prospector's Stewart, Sherrin 1987 assistance for the Foundation, Olive Mabel, Goldenville, and Ophir crown granted claims, 4 pp Walker, J. F., Lardeau map-area, British Bancroft, M. F. and Gunning, H. C. 1929 Columbia; Geological Survey of Canada Memoir 161

I, Perfecto J. Santos, of 626 - 9th Avenue, of the City of Castlegar, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geological Engineer with the firm of Anginel Resources Ltd. whose offices are located at 626 - 9th Avenue, Castlegar, British Columbia, Canada,

That I am a registered Professional Engineer in the Province of British Columbia, Canada,

That I am a graduate of the College of Engineering, University of the Philippines with a Bachelor of Science degree in Mining Engineering (Geology Option),

That I have been practicing my profession continuously for the past twenty-seven years,

That I have prepared this report based on personal work conducted on the property during the periods Nov. 1, 1987 and Sept. 4 - 6, 1988 as described in this report on the Ophir-Lade Property owned by Sherrin Stewart of Kelowna, British Columbia, Canada,

That I have not received directly or indirectly nor do I expect to receive any interest direct or indirect in the Ophir-Lade Property.

DATED at Castlegar, British Columbia, this 30th day of November, A.D. 1988.

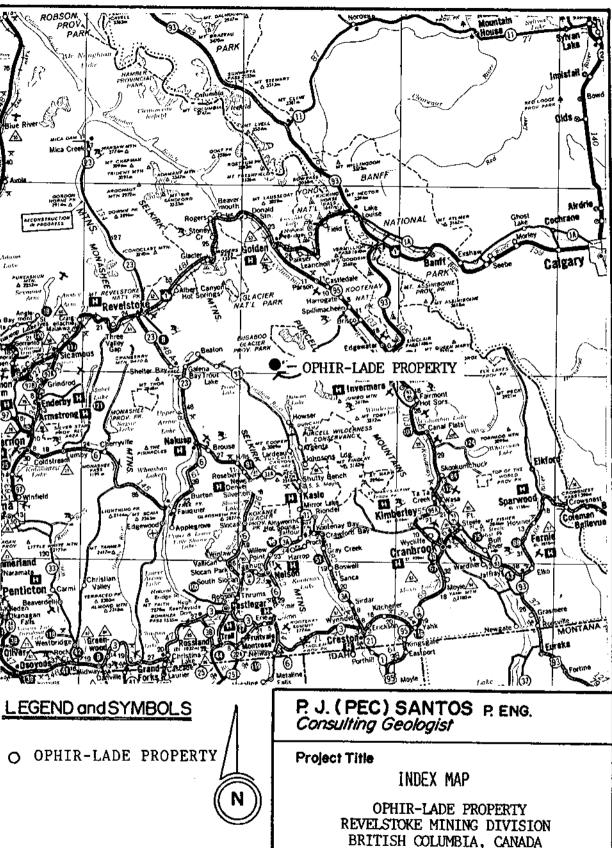
P./J. Santos, P. Eng.

11. APPENDIX

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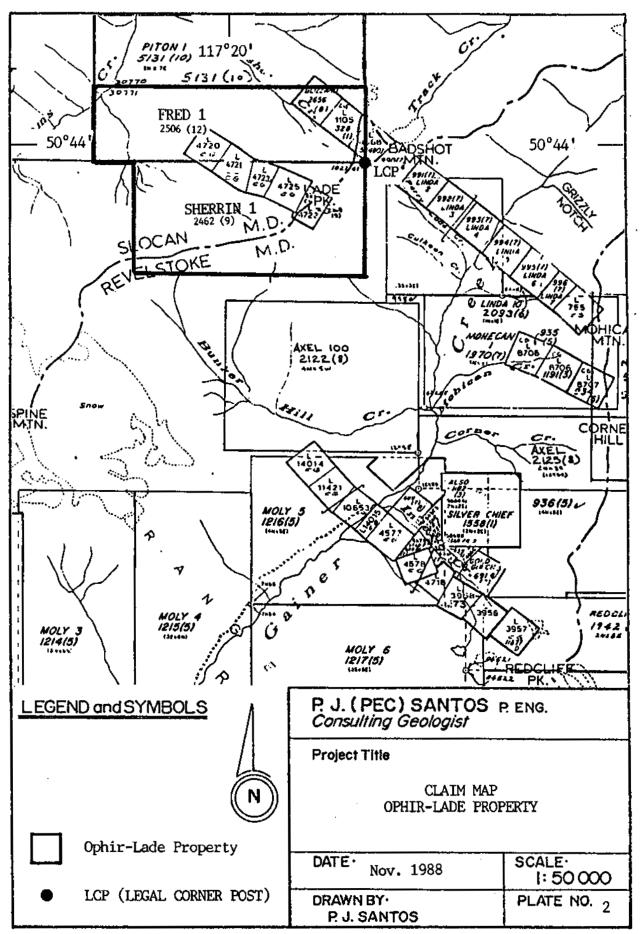
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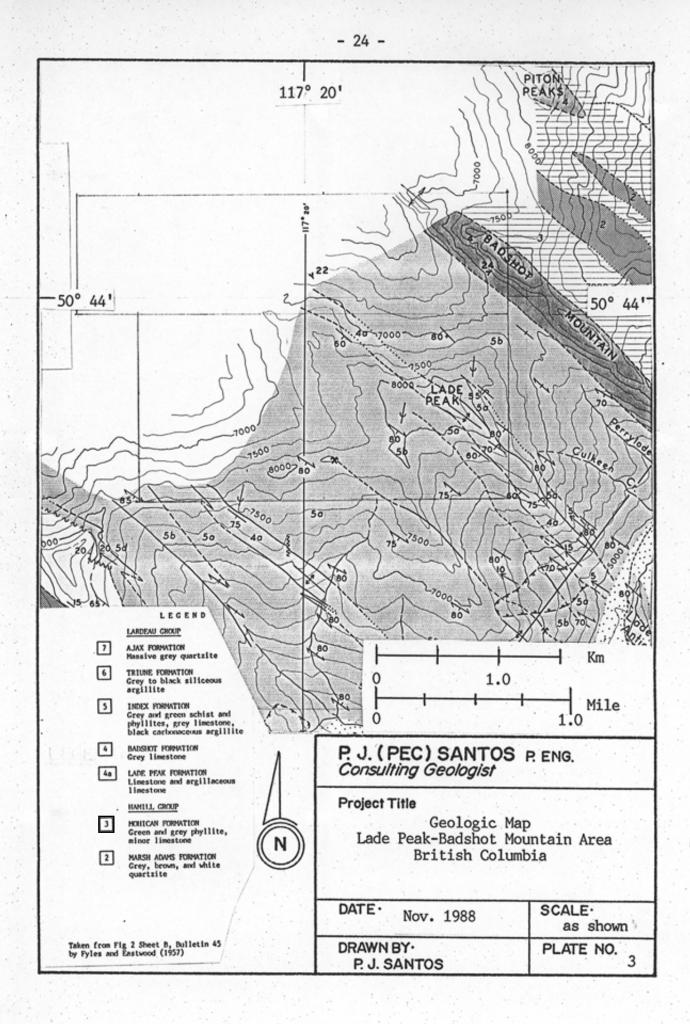


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Registered Assayer, Province of British Columbia

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Kamloops Research & Assay	B.C., CERTIFIED ASSAYERS 912 - 1 LAVAL CRESCENT, KAMLOOPS, B.C. V2C 5P5 PHONE (604) 372-2784 FAX 372-1112
LABORATORY LTD.	** ASSAY CERTIFICATE **
To: P.J. Santos, P. Eng 626 - 9th Ave. Castlegar, B.C.	Number: K 9225 Date: Sept. 16, 1988
VIN IN4	Proj.: Ophir-Lade

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