

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,539

GEOLOGICAL REPORT
ON THE
"IDEAL" CLAIMS

Located on Sproat Lake, Vancouver Island
Alberni Mining Division, B.C.
NTS 92F/6E

at

49°17' N Latitude
125°02' W Longitude

for
ROYALON PETROLEUM CORPORATION

by

David A. Caulfield, Geologist
Charles K. Ikona, P.Eng.

January 16, 1985

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1.0 INTRODUCTION

The Ideal property is located on the north shore of Sproat Lake in the southwestern part of Vancouver Island (Figure 1). The property was staked by the vendor, Sam Craig during the early months of 1983. To date, the property has seen minor trenching and sampling by the vendor.

It was requested by Royalon Petroleum Corp. that Pamicon Developments Ltd. conduct a property examination and assessment of the economic potential of the Ideal prospect.

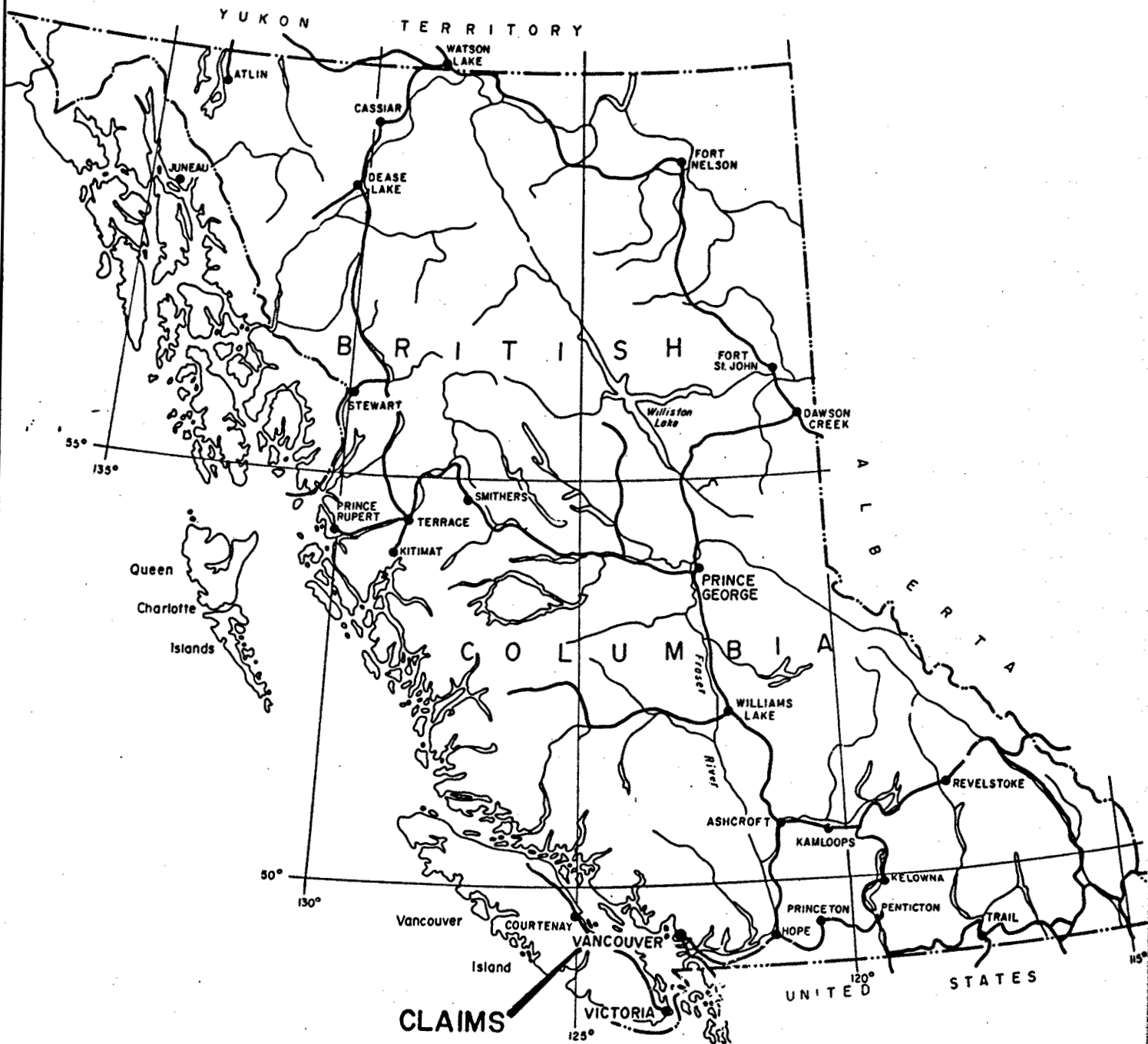
The examination was completed on June 3 and 5, 1984. Thirteen rock samples were collected for base metal geochemistry and precious metal assay.

2.0 LIST OF CLAIMS

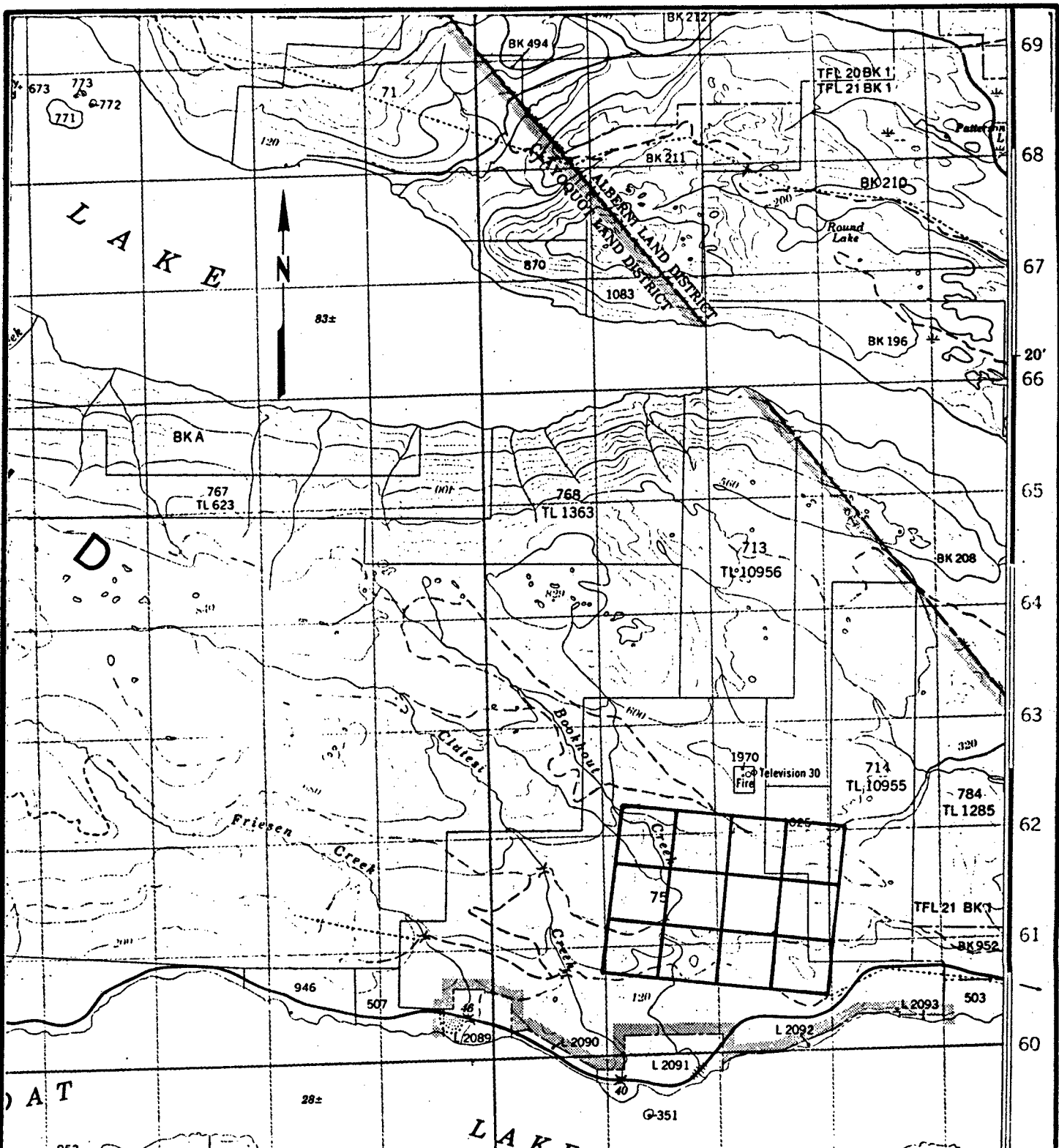
The B.C. Ministry of Mines, Energy and Petroleum Resources indicates that the following claims constitute the Ideal property (Figure 2):

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Record Date</u>
Ideal No. 1	1589	1	January 6/83
Ideal No. 2	1590	1	January 6/83
Ideal No. 3	1612	1	January 27/83
Ideal No. 4	1613	1	January 27/83
Ideal No. 5	1614	1	January 27/83
Ideal No. 6	1615	1	January 27/83
Ideal No. 7	1660	1	March 18/83
Ideal No. 8	1661	1	March 18/83
Ideal No. 9	1708	1	April 6/83
Ideal No. 10	1709	1	April 6/83
Ideal No. 11	1710	1	April 6/83
Ideal No. 12	1711	<u>1</u>	April 6/83

12 Units



ROYALON PETROLEUM CORP.			
IDEAL CLAIMS			
PROPERTY LOCATION MAP			
PAMICON DEVELOPMENTS LTD.			
DRAWN	PROJECT	DATE	FIG. 1



ROYALON PETROLEUM CORP.	
IDEAL CLAIMS	
CLAIM MAP	
NTS 92 F/6	
PAMICON DEVELOPMENTS LTD.	
DATE	FIGURE



Any of the posts located during the course of the property visit were staked in accordance with the regulations stipulated in the provincial Minerals Act. The claims fall under the jurisdiction of the Alberni Mining Division.

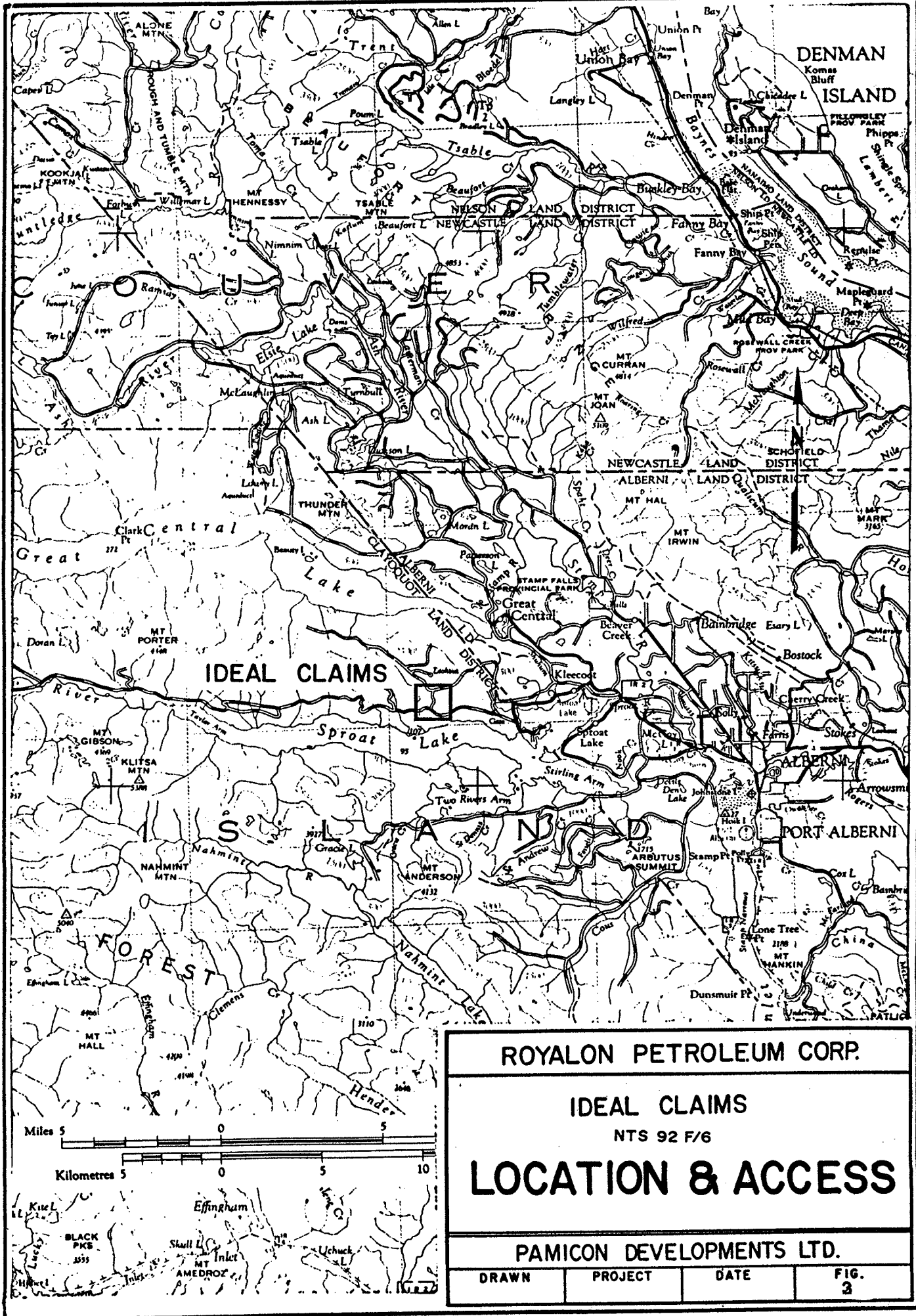
3.0 LOCATION, ACCESS AND PHYSIOGRAPHY

The property is located approximately 17.5 km west of Port Alberni along the north shore of Sproat Lake, Vancouver Island (Figure 3). Access is obtained by travelling west 19 km along Highway 4 from Port Alberni and taking a logging road on the north side of the highway for another 1.5 km. Logging roads and power transmission line access routes provide easy access to all parts of the property.

The terrain is atypical of the western half of Vancouver Island. Elevations range from only 120 m to just over 400 m with the topography being relatively moderate and easily accessible. The area has been long since logged and second growth timber is well established. Lack of proper tree thinning and the presence of heavy undergrowth make certain parts of the property difficult to traverse. The climate is generally wet and mild with heavy annual precipitations although hot, dry periods frequent summer months.

4.0 HISTORY

A cursory check of government records and publications shows that minimal exploration has been completed on the Ideal; no record of the area is listed with the B.C. government inventory of mineral properties - MINFILE. Ground investigations indicate the Ideal has seen at least two periods of brief activity. An



ROYALON PETROLEUM CORP.

IDEAL CLAIMS
NTS 92 F/6

LOCATION & ACCESS

PAMICON DEVELOPMENTS LTD.

DRAWN	PROJECT	DATE	FIG. 2
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old prospect pit can be found along the access road connecting the main two east/west logging roads on the property. Physical work in the form of backhoe trenching was completed more recently by the vendor.

Excitement created by the recent developments in the Kennedy Lake area and by the drill indicated zones on the "Tay" group at Taylor Arm has generated extensive staking in the area. Although not centred on the main trend of staking, geological similarities may be correlated between these two areas and Ideal prospect.

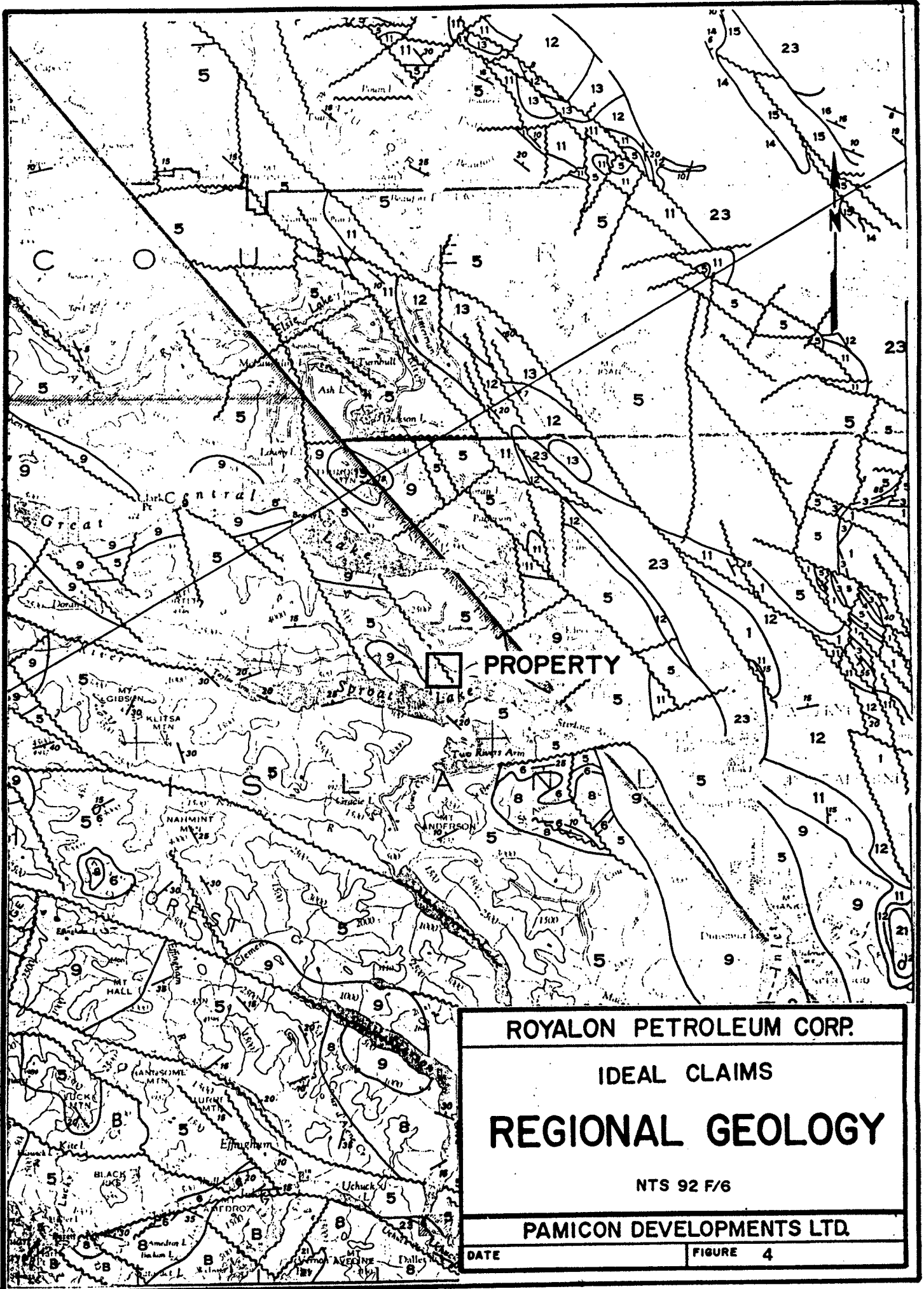
5.0 REGIONAL GEOLOGY

The Ideal property is situated within the Insular geotectonic belt. Simply, the geology is represented by eugeosynclinal volcanics and sediments which have been intruded by Jurassic "Island intrusives" (Figure 4).

The oldest rocks belong to the Upper Triassic Karmutsen Formation of basic lava flows with interlava breccia, tuff and minor clastic units. Conformably overlying the Karmutsen is the Upper Triassic Quatsino limestone. The youngest formation in the area is the Parson Bay group of sedimentary rocks: calcareous argillite, calcareous greywacke and sandy to shaly limestone. Past authors have included the Parson Bay Formation within the lower section of the Bonanza Formation.

Jurassic plutonic rocks are stocks or outliers of the Alberni plutons.

Alberni plutons are typically quartz diorites or granodiorites low in potash feldspar. Contacts with the Karmutsen volcanics are generally sharp and steep with limited narrow hornfelsed zones within the host rocks.



PROPERTY

ROYALON PETROLEUM CORP.

IDEAL CLAIMS

REGIONAL GEOLOGY

NTS 92 F/6

PAMICON DEVELOPMENTS LTD.

DATE

FIGURE 4

JURASSIC
MIDDLE TO UPPER JURASSIC

9 ISLAND INTRUSIONS: biotite-hornblende granodiorite, quartz diorite

TRIASSIC AND JURASSIC
LOWER JURASSIC(?)

VANCOUVER GROUP (5-8)
BONANZA SUBGROUP (7, 8)
8 VOLCANIC DIVISION: andesitic to latitic breccia, tuff and lava; minor greywacke, argillite and siltstone

UPPER TRIASSIC AND LOWER JURASSIC
7 SEDIMENTARY DIVISION: limestone and argillite, thin bedded, silty carbonaceous

UPPER TRIASSIC
6 QUATSINO FORMATION: limestone, mainly massive to thick bedded, minor thin bedded limestone

UPPER TRIASSIC AND OLDER
5 KARMUTSEN FORMATION: pillow-basalt and pillow-breccia, massive basalt flows; minor tuff volcanic breccia. Jasperoid tuff, breccia and conglomerate at base

TRIASSIC OR PERMIAN
4 Gabbro, peridotite, diabase

PENNSYLVANIAN, PERMIAN AND OLDER
LOWER PERMIAN
SICKER GROUP (1-3)

3 BUTTLE LAKE FORMATION: limestone, chert

MIDDLE PENNSYLVANIAN
2 Argillite, greywacke, conglomerate; minor limestone, tuff

PENNSYLVANIAN AND OLDER
1 Volcanic breccia, tuff, argillite; greenstone, greenschist; dykes and sills of andesite-porphry

PALEOZOIC

'WESTCOAST CRYSTALLINE COMPLEX' (A-D)
'BASIC ROCKS'

D Gabbro, peridotite

'TOFINO INLET PLUTON'


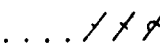

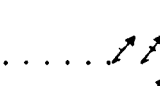


C Hornblende-biotite quartz diorite, granodiorite

'WESTCOAST DIORITES'

B Hybrid hornblende diorite, quartz diorite, agmatite; includes masses of hornfelsic volcanic rocks

'WESTCOAST GNEISS COMPLEX'

A Hornblende-plagioclase gneiss, amphibolite, hornfels

- Geological boundary (approximate) 
- Bedding (inclined, vertical, overturned) 
- Schistosity, foliation (inclined) 
- Schistosity, foliation and minor fold axes (inclined, vertical, arrow indicates plunge) 
- Lincation (axes of minor folds) 
- Fault (approximate); lineament 

Geology by J. E. Muller

Pamicon Developments Ltd.

Steep block faulting constitutes the major part of the structural history of the area. Two prominent directions are:

- North - northwest
- West - southwest

6.0 PROPERTY GEOLOGY

No detailed geological mapping has been performed on the Ideal. It would appear though that the various road cuts and drainages will provide enough exposure to properly map the area.

The two dominant rock types are the flows and pillow lavas of the Karmutsen basic volcanics and the fine grained granodiorite outcropping on the east and west extremities of the Ideal. On the upper road, exposures of limestone and bedded clastic units are found (Figure 5). Respectively, they may represent the Quatsino and Parson Bay Formation although their apparent limited thickness and strike length likely negate this possibility. It would appear more reasonable that the gently north dipping units are sedimentary layers of the upper section of the Karmutsen Formation.

6.1 Mineralization

All the economic mineralization found to date is found in quartz vein systems hosted in altered volcanics which may occur as single isolated veins or as a swarm of several veins and veinlets (Sample 66089). The predominate vein orientation strikes west-northwest with a moderate northerly dip. Weaker, mineralized cross structures with a northeasterly strike have also been located. The primary sulphide minerals are pyrite and chalcopyrite excepting the far west exposure where minor galena and trace amounts of sphalerite occur. Gangue mineralogy is comprised of quartz

and minor carbonate. The vein structures are lensey in nature and seem to follow both sheared planes within the Karmutsen volcanics or along joints in which there has been little or no visible movement. Common vein textures include both drusy and coarse crystalline linings of vugs and brecciation encompassing both quartz and silicified host rock. Surface exposures of the veins are stained with iron oxides (jarosite, hematite), malachite, trace azurite and black copper/manganese wad mineralization.

Samples taken during the examination returned very encouraging results. Gold-bearing zones were exposed along a 750 m stretch of the lower road and all the samples from other areas on the property assayed better than 0.010 oz/t gold. In fact, only one sample out of thirteen contained less than .010 oz/t gold with the highest being 0.272 oz/t gold. All silver values are very low as are the lead and zinc values in most of the samples. As expected, elevated copper values were found in all samples (Appendix II).

In summary, the target auriferous zones on the Ideal claims are quartz (minor carbonate) structures mineralized with chalcopyrite and pyrite with negligible silver values.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Assay results, the extent of known mineralization and geological setting indicate that the Ideal claims represent an exciting and potentially rewarding gold exploration target. Excellent road access and close proximity to a major population centre with tidewater shipping facilities lends itself to the near as well as long term development of the property.

Gold bearing vein systems are exposed over a 750 m strike length with all assay values, except one, ranging from 0.010 to 0.272

(0.34 to 9.32 g/tonne)

oz/t gold. The property is underlain with Island intrusives and Karmutsen volcanics with all mineralization found to date being located in the volcanics along west-northwest structures dipping moderately north.

The mode of occurrence, mineralogy and geological setting is strikingly similar to that of the Bowes Lyon/Gladiator Resources Ltd. Tay Gold property at the west end of Sproat Lake. NVC Engineering Ltd. has outlined a "drill indicated potential of a minimum of 115,000 tons in an excellent target for further development." Grades obtained on surface at the Tay Gold property are well in line with those on the Ideal. Both are gold-copper vein-type deposits with very low silver values hosted within altered volcanics along west-northwest structures.

Further exploration on the Ideal is fully warranted. A phased exploration program is recommended as follows:

Phase I

1. Obtain air photo coverage of claim area and contract the construction of orthophoto base at scale of 1:5,000 (10 m contour intervals).
2. Establish a control grid with 1.5 km cut baseline (105°) through the lower road showing area. Crosslines (500 m) should be established every 100 m with stations set at 25 m intervals.
3. A soil survey (Cu, Ag, Au) conducted over the grid at every 25 m station.
4. Detailed geological mapping and prospecting should cover the entire claim area. Allowance may be made for several reconnaissance soil geochemical lines over areas not covered by the grid area.

5. Ground magnetometer and EM-16 geophysical surveys executed in areas not affected by powerline effects. Ground mag will assist in determining geological contacts and units in covered areas whereas the EM-16 survey may outline mineralized and structural zones (shear zones, etc.).
6. Backhoe trenching and blasting of any anomalous zones will culminate the Phase I program. All trenches are to be mapped and sampled in sufficient detail so as to properly outline orientation and extent of all mineralization.

Estimated Cost \$41,397.00 (Appendix I)

Phase II

Dependent upon the results of the above work, a follow-up program of diamond drilling may be warranted.

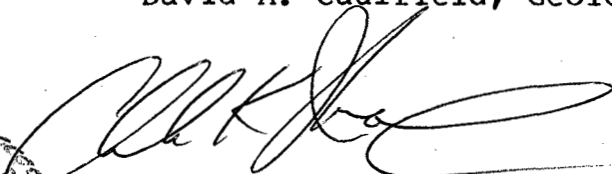
1. 1,500 feet (BQ) @ \$35/ft (all costs included).

Estimated Cost \$52,500.00

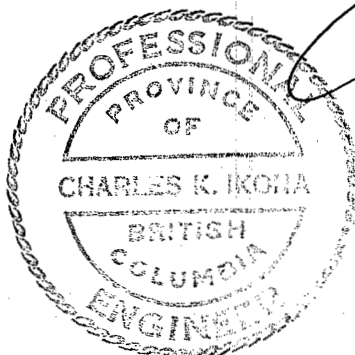
Respectfully submitted,



David A. Caulfield, Geologist



Charles K. Ikona, P.Eng.



8.0 REFERENCES

Carson, D.J.T. The Plutonic Rocks of Vancouver Island. GSC
Paper 72-44.

Geological Survey of Canada Maps:

- (I) 49 - 1963, Alberni Area
- (II) 17 - 1968, Alberni
- (III) O.F. 463, Geology of Vancouver Island

ITEMIZED COST
IDEAL CLAIMS 1-12

WAGES

D.A. Caulfield, Geologist
215, 543 Granville Street
Vancouver, B.C.

June 3 and 5

2 days @ \$300/day

\$ 600.00

K.A. Milledge, Assistant
215, 543 Granville Street
Vancouver, B.C.

June 3 and 5

2 days @ \$225/day

450.00

\$1,050.00

TRUCK RENTAL

2 days @ \$50/day

100.00

Fuel

40.00

MISCELLANEOUS

Flagging, sample bags, etc.

100.00

ACCOMMODATION

Tyee Village Motel

2 nights @ \$36.22

72.44

ASSAY AND GEOCHEM

Chemex Labs Ltd. (Invoice No. 18412372)

13 rock samples for Cu, Pb, Zn, Ag, Au

@ \$18.05 each

234.65

REPORT

500.00

TOTAL COSTS

\$2,097.09

APPENDIX II

ASSAY CERTIFICATES



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : PAMICON DEVELOPMENTS LIMITED

**

CERT. # : A8412372-001-A

INVOICE # : 18412372

DATE : 15-JUN-84

P.O. # : NONE

ROYOLON VANC. IS.

215 - 543 GRANVILLE ST.,
VANCOUVER, B.C.
V6C 1X8

ATTN: D. CAULFIELD - IDEAL CLAIMS

Sample description	Prep code	Ag FA oz/T	Au FA oz/T				
66086	207	0.16	0.272 ✓	--	--	--	--
66087	207	0.02	<0.003	--	--	--	--
66088	207	0.20	0.090 ✓	--	--	--	--
66089	207	0.06	0.022	--	--	--	--
66090	207	0.13	0.028	--	--	--	--
66091	207	0.21	0.120 ✓	--	--	--	--
66092	207	0.14	0.040	--	--	--	--
66093	207	0.11	0.014	--	--	--	--
66094	207	0.14	0.070	--	--	--	--
66095	207	0.07	0.014	--	--	--	--
66096	207	0.10	0.046	--	--	--	--
66097	207	0.10	0.012	--	--	--	--
66098	207	0.07	0.010	--	--	--	--

.....
[Signature]

 Registered Assayer, Province of British Columbia



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : PAMICON DEVELOPMENTS LIMITED

**

CERT. # : A8412372-001-A

INVOICE # : I8412372

DATE : 15-JUN-84

P.O. # : NONE

ROYOLON VANC. IS.

215 - 543 GRANVILLE ST.,
VANCOUVER, B.C.
V6C 1X8

ATTN: D. CAULFIELD - IDEAL CLAIMS

Sample description	Prep code	Cu ppm	Pb ppm	Zn ppm			
66086	207	322	.6	29	--	--	--
66087	207	118	1	68	--	--	--
66088	207	910	.1	19	--	--	--
66089	207	465	12	35	--	--	--
66090	207	1000	820	275	--	--	--
66091	207	1430	31	90	--	--	--
66092	207	680	5	35	--	--	--
66093	207	720	2	20	--	--	--
66094	207	202	67	24	--	--	--
66095	207	980	1	.16	--	--	--
66096	207	240	3	76	--	--	--
66097	207	125	14	49	--	--	--
66098	207	90	4	44	--	--	--

Certified by *Hart Buchler*



MEMBER
CANADIAN TESTING
ASSOCIATION

STATEMENT OF QUALIFICATIONS

I, DAVID A. CAULFIELD, of 3433 West 12th Avenue, Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY THAT:

1. I am a Geologist in the employment of Pamicon Developments Ltd. with offices at 215, 543 Granville Street, Vancouver, British Columbia.
2. I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Geology.
3. My primary employment since 1978 has been in the field of mineral exploration.
4. My experience has encompassed a wide range of geological environments and has allowed considerable familiarization with geophysical, geochemical and diamond drilling techniques.
5. I visited the Ideal property in June 1984.
6. I have no interest in the property described herein, nor in securities of Royalon Petroleum Corp.; nor do I expect to acquire any such interests.
7. I consent to the use of this report in a Prospectus or Statement of Material Facts or any other such document as may be required by the Vancouver Stock Exchange or the Office of the Superintendent of Brokers.

DATED at Vancouver, British Columbia, this 26th day of
FEBRUARY, 1985.

David A. Caulfield, Geologist
Pamicon Developments Ltd.

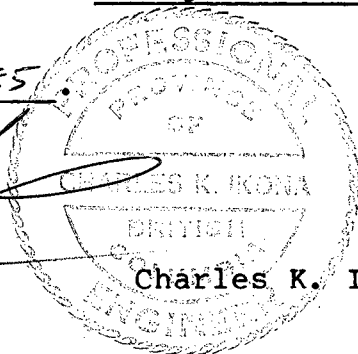
ENGINEER'S CERTIFICATE

I, CHARLES K. IKONA, of 5 Cowley Court, Port Moody, in the Province of British Columbia, DO HEREBY CERTIFY THAT:

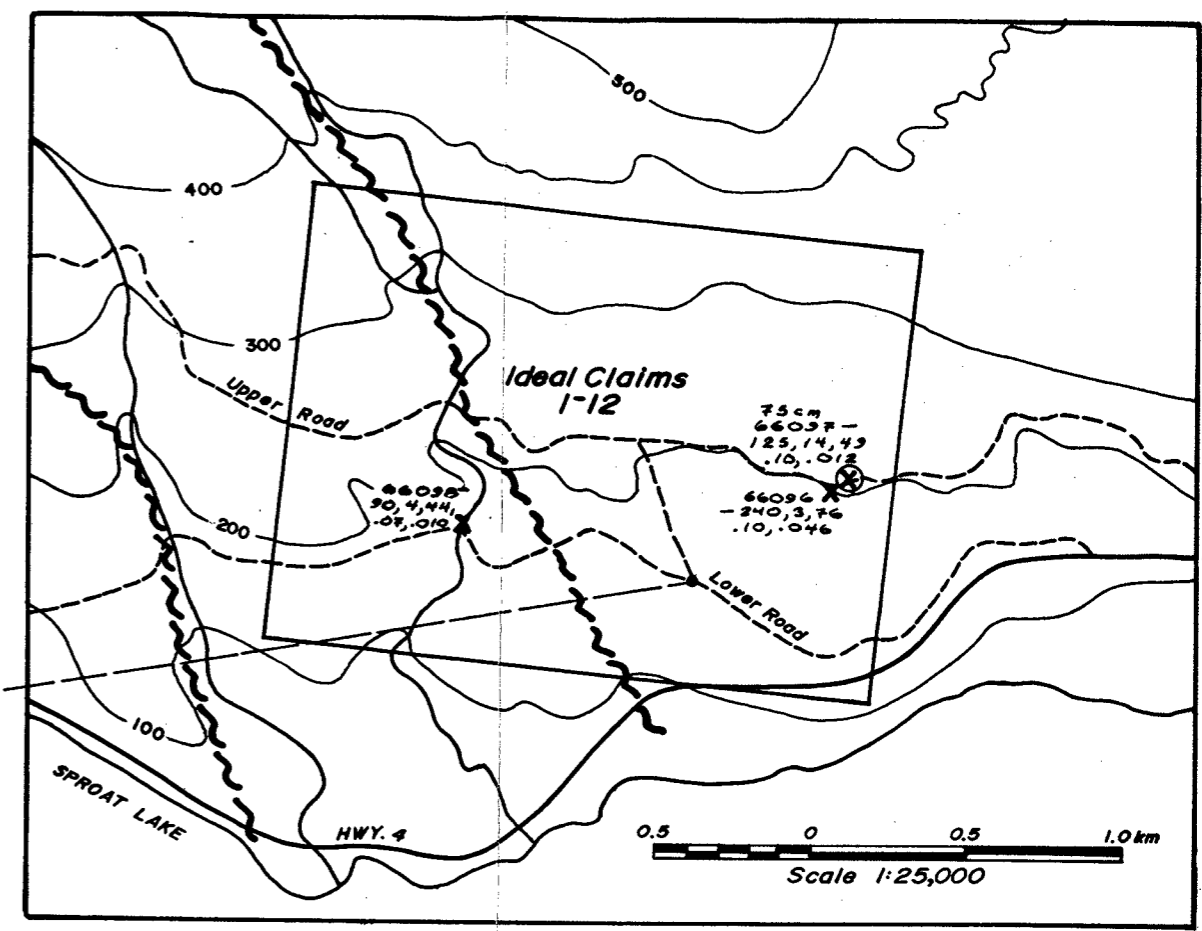
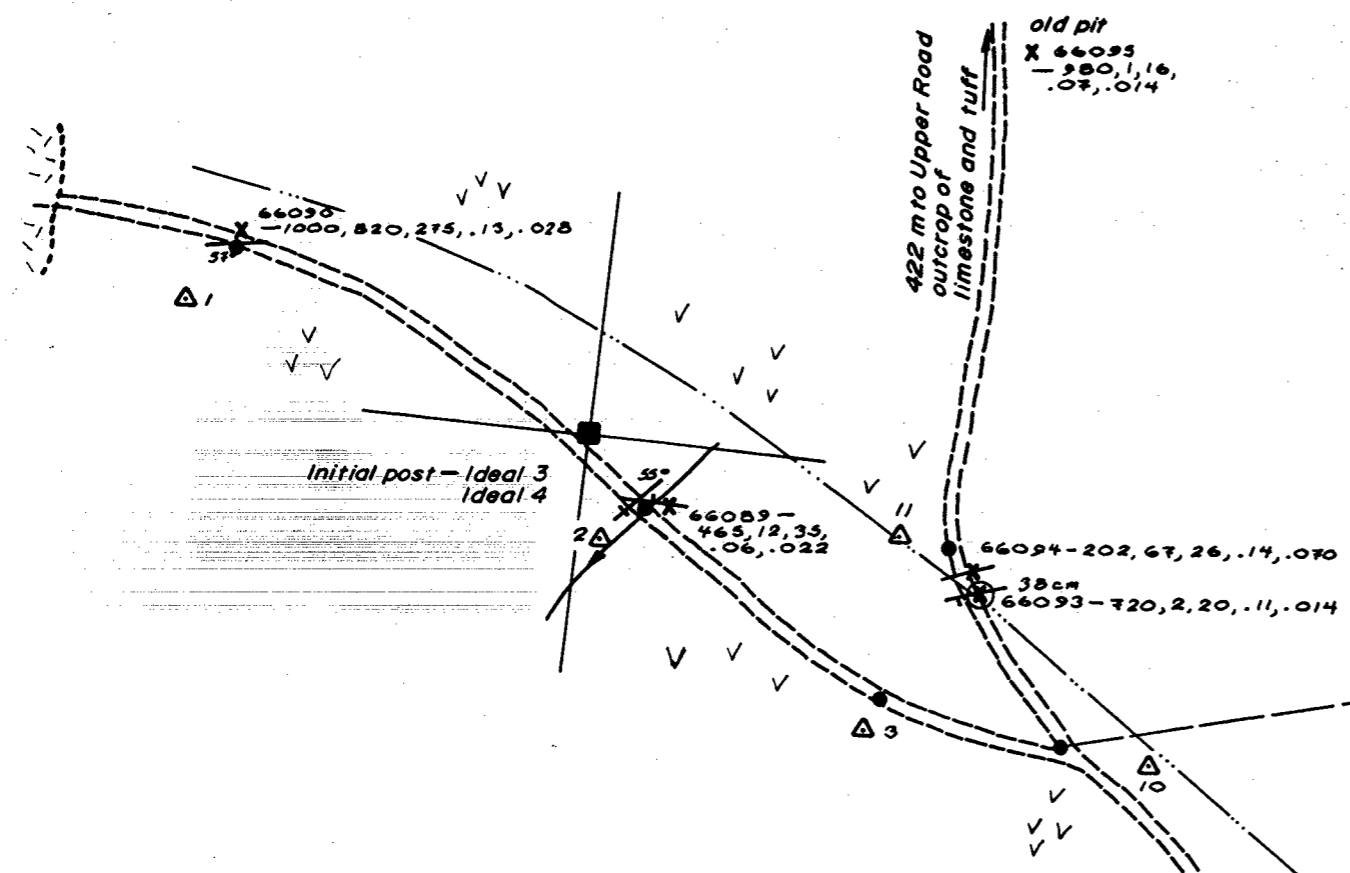
1. I am a Consulting Mining Engineer with offices at 215, 543 Granville Street, Vancouver, British Columbia.
2. I am a graduate of the University of British Columbia with a degree in Mining Engineering.
3. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
4. I have not examined the property reported on. The examination was carried out by David A. Caulfield, a geologist whom I have known and worked closely with for a number of years and in whom I have every confidence.
5. I have no interest in the property reported on or in the securities of any company associated with the property nor do I expect to acquire any such interest.
6. I consent to the use by Royalon Petroleum Corporation of this report in a Prospectus or Statement of Material Facts or any other such document as may be required by the Vancouver Stock Exchange or the office of the Superintendent of Brokers.

DATED at Vancouver, British Columbia, this 24th day of










Feb, 1965

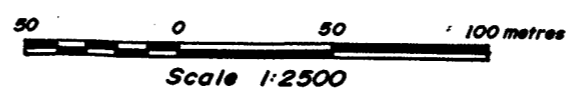


Charles K. Ikona, P.Eng.



LEGEND

-  Island intrusive
-  Karmutsen volcanics
-pillowed flows; basalt andesite
-  Vein - strike & dip
(vein may be composite of several veins)
-  X 66089 -
465, 12, 35, .06, .022
Grab sample -
Cu ppm, Pb ppm, Zn ppm, Ag oz/ton, Au oz/ton
-  38 cm
66093
Chip sample - width
-  Creek
-  Power line (approximate location)
-  Road
-  Survey station (chain & compass)



Royalon Petroleum Corp.
 Compilation Map
IDEAL CLAIMS
 Vancouver Island
 NTS: 92 F/6 E

By: D.A. Caulfield, K.A. Millidge
 JUNE 5, 1984 FIGURE 5
PAMICON DEVELOPMENTS LTD.