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GEOLOGICAL REPORT  
ON THE  
WOLF II MINERAL CLAIM  
OMINECA MINING DIVISION  
BRITISH COLUMBIA

FOR  
TEXPEZ OIL AND GAS INC.

Nicholas C. Carter, Ph.D., P.Eng.  
Consulting Geologist

Victoria, B.C.

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## SUMMARY

Texpez Oil and Gas Inc. owns the Wolf II mineral claim, comprised of 20 units and situated in the Toodoggone River area of north-central British Columbia.

The Wolf II claim is 300 kilometers north of Smithers and is accessible by fixed-wing aircraft and helicopter.

The Toodoggone River area is a significant epithermal precious metals district. Proven deposits include the formerly producing Baker gold-silver mine and the Lawyers property which has a reported reserve of 1 million tonnes grading 7.27 grams/tonne gold and 254 grams/tonne silver. The Lawyers and several other significant gold-silver prospects in the area are hosted by early Jurassic Toodoggone volcanic rocks.

The Wolf II mineral claim is underlain by lower units of the Toodoggone volcanic sequence. Significant gold-silver mineralization has been identified in similar Toodoggone rocks north and south of the claim. A major regional fault system extends northwestward through the property.

A two phase exploratory program is recommended to evaluate the Wolf II claim. Phase I, involving geological mapping, geochemical sampling and geophysics, is estimated to cost \$37,000. A second phase, contingent on results of Phase I work, has estimated costs of \$50,000.

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Nicholas C. Carter, Consulting Geologist

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## INTRODUCTION

Texpez Oil and Gas Inc. owns the Wolf II mineral claim which is situated in the Toodoggone River area of north-central British Columbia.

This report, prepared at the request of Texpez Oil and Gas Inc., is based principally on available published and unpublished maps and reports dealing with the general area.

The writer has not visited the Wolf II mineral claim, but has a good knowledge of the Toodoggone area by way of numerous property examinations and supervision of several exploration programs over the past 14 years.

## LOCATION and ACCESS

The Wolf II mineral claim is situated 300 kilometers north of Smithers in the Toodoggone River area of north-central British Columbia (Figure 1). The geographic centre of the claim is at latitude 57°32' North and longitude 127°19' West in NTS map area 94E/6E.

Access into the Toodoggone River area is by fixed wing aircraft to a 1,600 metre long gravel airstrip on the Sturdee River (Figure 2). The Wolf II claim is a 40 kilometer helicopter flight north of the airstrip.

A road currently links Baker mine and the Lawyers property with the Sturdee airstrip (Figure 2). Extension of the Omineca mining road into the area from the present terminus 65 kilometers to the southwest, would provide conventional access to Prince George and points south.

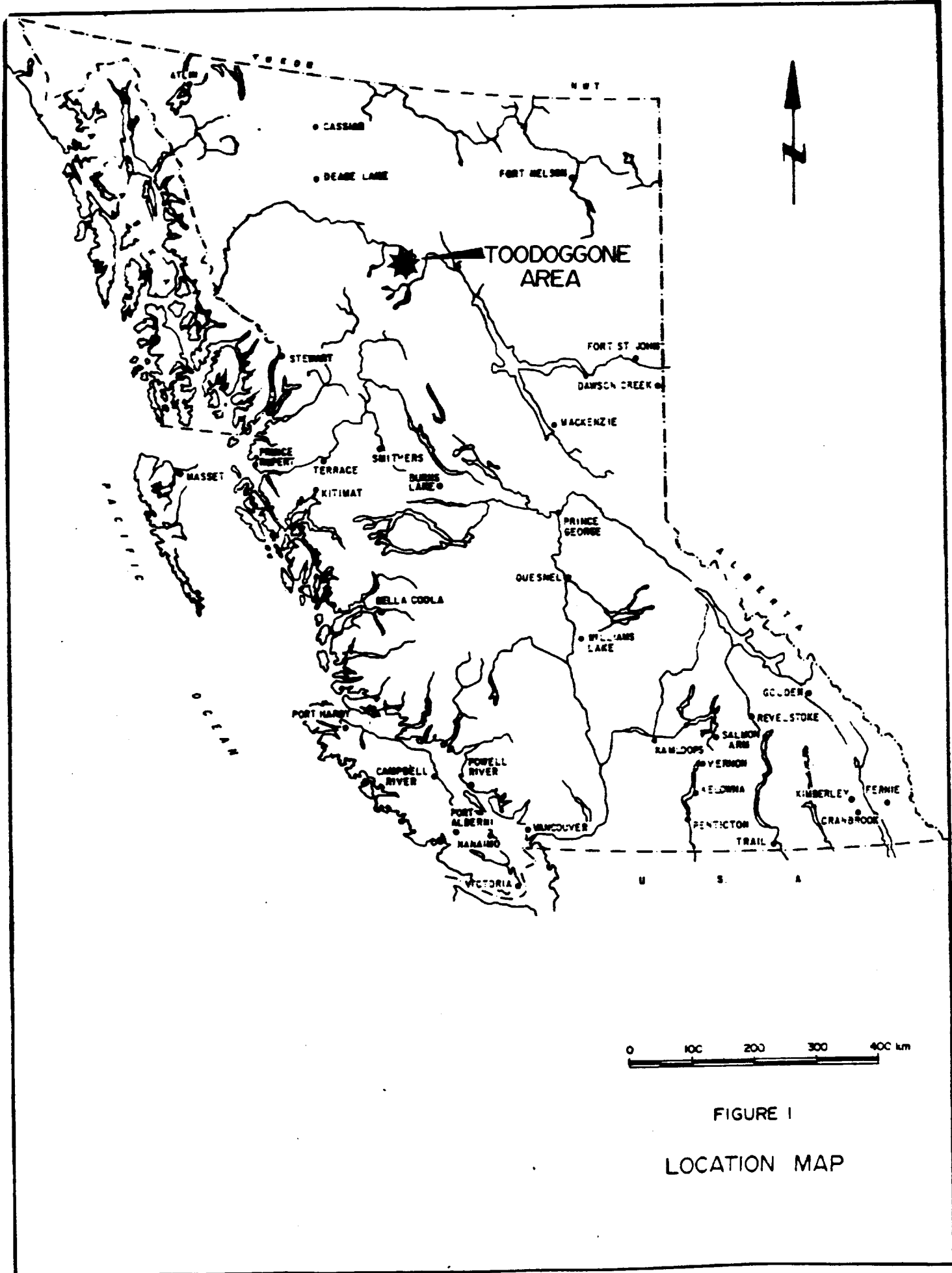


FIGURE I  
LOCATION MAP

## MINERAL PROPERTY

The Wolf II modified grid mineral claim is comprised of 20 units and is situated in the northern part of the Omineca Mining Division on its boundary with the Liard Mining Division.

The claims are believed to have been located in accordance with procedures as specified by the Mineral Act Regulations for the Province of British Columbia. The claims were located recently, subject to winter conditions.

The writer has reviewed data provided by locators of the claim and claim records on file with the office of the Gold Commissioner, Vancouver.

Details of the claim is as follows:

Name of Claim	Units	Tag Number	Expiry Date
Wolf II	20	93338	March 25, 1986

## PHYSICAL FEATURES

The Toodoggone River region is an upland area featuring rounded to craggy mountains and ridges dissected by broad alluvium-filled valleys. Steep-walled cirques are common on north-facing slopes while southerly slopes are generally more gentle and rounded.

The Wolf II claim is situated near the eastern margin of the Spatsizi Plateau in an open, gently rolling upland surface. South facing slopes are relatively gentle while north slopes have steeper gradients (Figure 3). The claim covers the broad open valleys of Dedeeya and Abesti Creeks.

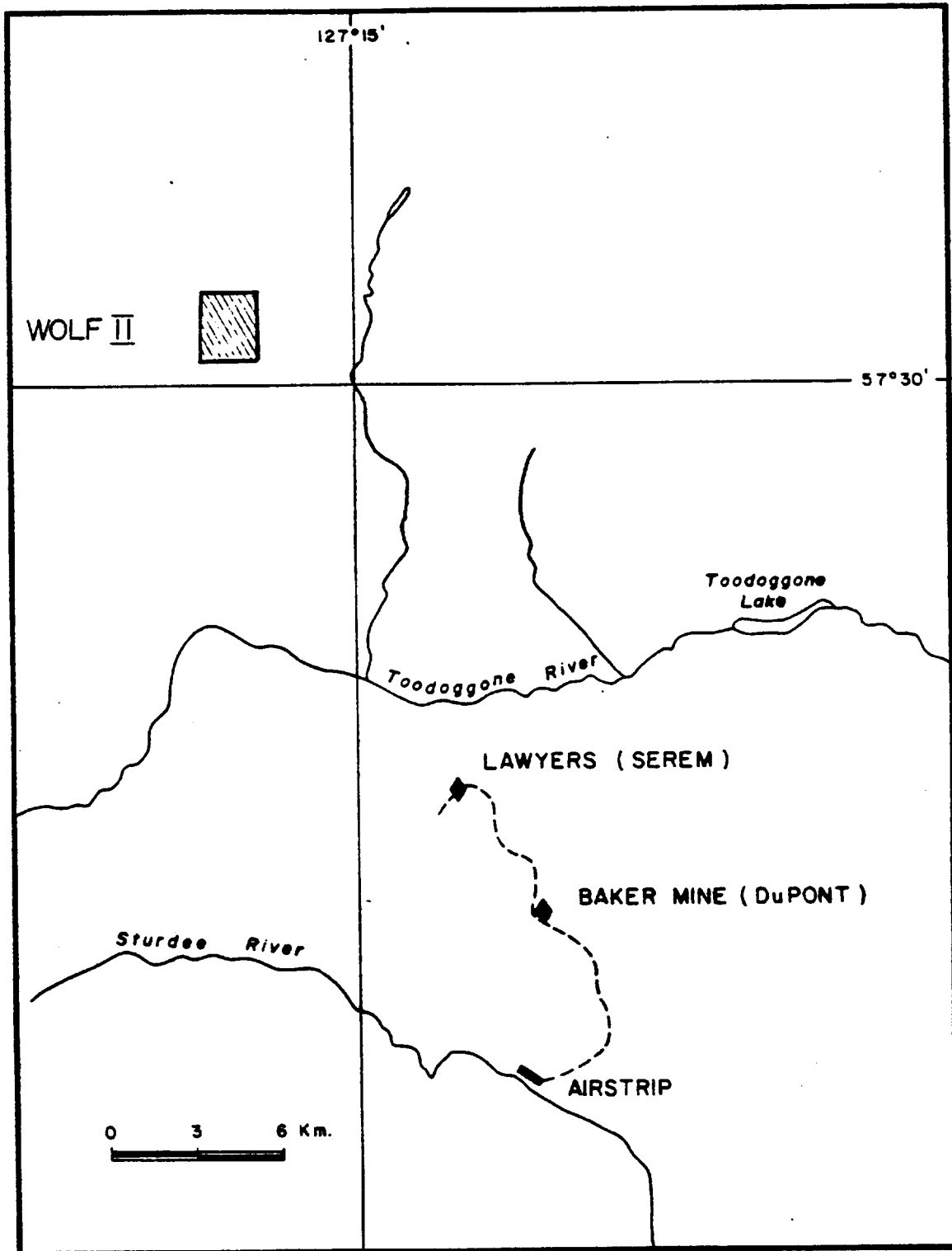


FIGURE 2 - LOCATION - WOLF II MINERAL CLAIM

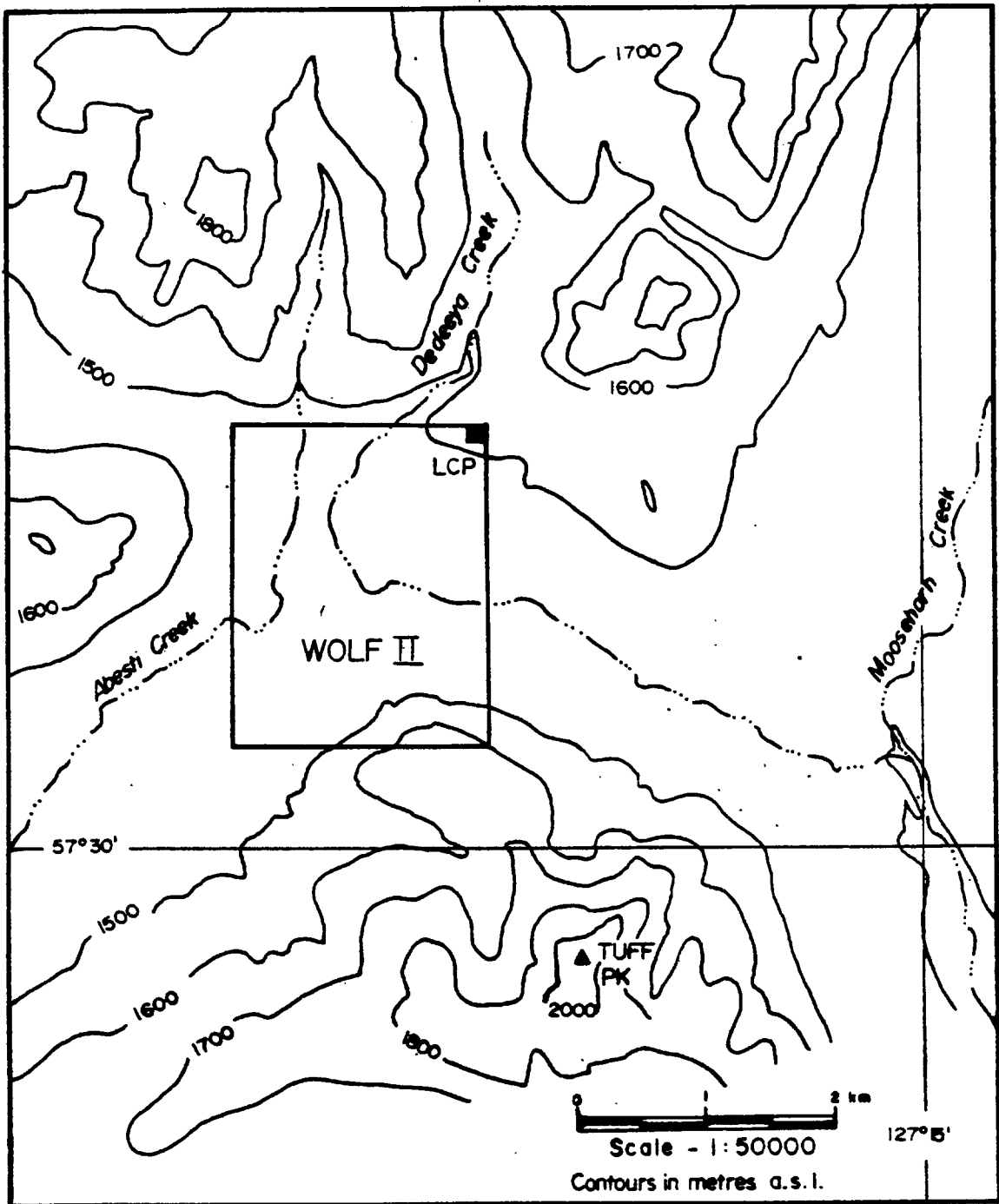


FIGURE 3 WOLF II MINERAL CLAIM



Elevations within the claim range from 1,500 metres along Dedeeya Creek to nearly 1,600 metres near the south boundary.

Local stands of alpine spruce, balsam and fir extend to about 1,600 metres elevation. The gravel-filled valleys of Abesti and Dedeeya Creeks are partly open tundra.

Bedrock exposures may be present on slopes and deeply incised valley bottoms.

The area is snow free between June and early October.

## HISTORY

The Toodoggone area was investigated for placer gold in the 1920's and 1930's. A public company, Two Brothers Valley Gold Mines Ltd., undertook considerable test work, including drilling, in 1934. Most of this work was directed to extensive gravel deposits principally near the junction of McClair Creek and Toodoggone River several kilometers south of the present claim.

Lead-zinc mineralization near the north end of Thutade Lake and south of Baker mine was also investigated in the 1930's.

Gold-silver mineralization was discovered on the Chappelle (Baker Mine) property by Kennco Explorations (Western) ltd. in 1969. DuPont of Canada Exploration Ltd. acquired the property in 1974 and began production at a milling rate of 90 tonnes per day in 1980.

Numerous other gold-silver discoveries were made in the area in the 1970's and 1980's, including the Lawyers deposit which was discovered by Kennco in 1973 and optioned by SEREM Ltd. in 1979. Work on this property to date has included considerable trenching, drilling and underground development and a feasibility study is currently underway.

The Toodoggone area has been the scene of intense exploration activity during the past four years with numerous companies exploring over 3,000 mineral claim units. Exploration and development expenditures to date are estimated to be in the order of \$33 million.

The only records of previous work in the area of the present Joanna III mineral claim is contained in assessment reports (McKelvie, 1970, Harron, 1981, Drown, 1982) dealing with areas immediately east and west. Work included geological mapping and geochemical and geophysical surveys. Considerable work, including trenching and drilling, has been carried out by Kidd Creek Mines Ltd. on Energex Minerals' JD prospect 2 kilometers southwest of the Joanna III claim.

#### REGIONAL GEOLOGICAL SETTING and MINERAL DEPOSITS

The Toodoggone River area is situated near the eastern margin of the Intermontane tectonic belt. Oldest rocks in the area are late Paleozoic limestones in the vicinity of Baker mine where they are in fault contact with late Triassic Takla Group volcanic rocks.

A distinctive lithologic volcanic unit of early Jurassic age, called the Toodoggone volcanics, is a subaerial pyroclastic assemblage of predominantly andestic composition (Pantelyev, 1983). These unconformably overlie, or are in

fault contact with older rocks, principally Takla Group volcanic rocks and undivided Hazelton Group feldspar porphyry flows and fragmental rocks.

Toodoggone volcanic rocks are contained in a 100 by 25 kilometer northwest-trending belt extending from Thutade lake in the south to Stikine River in the north.

Several major stratigraphic subdivisions of Toodoggone volcanics have been identified (Panteleyev, 1982, Diakow, 1983). These and older layered rocks of the Takla and Hazelton Groups are cut by Omineca granitic rocks of Early Jurassic age, which commonly occur along the eastern margin of the Toodoggone volcanic belt, and by subvolcanic intrusions related to Toodoggone volcanics.

Clastic sedimentary rocks of the Cretaceous-Tertiary Sustut Group overlie older layered rocks near the Stikine River and form the southwestern exposed margin of the Toodoggone volcanic belt.

Regional fault systems trend northwesterly and northerly throughout the Toodoggone area.

Several styles of economic mineralization have been identified (Schroeter, 1981), of which the most important are epithermal precious and base metal deposits hosted principally by lower and middle units of Toodoggone volcanics and related to Toodoggone volcanic processes. Gold-silver mineralization occurs principally in fissure veins, quartz stockworks, breccia zones and areas of silicification in which ore minerals are fine-grained argentite, electrum, native gold and silver and lesser chalcopyrite, galena and sphalerite.

Alteration mineral assemblages are typical of epithermal deposits with internal silicification, clay minerals and locally alunite, grading outward to sericite and clay minerals, chlorite, epidote and pyrite.

Examples include Baker Mine, a fissure vein system developed in Takla volcanic rocks, but spatially related to dikes believed to be associated with Toodoggone volcanic rocks. Pre-mining indicated reserves were 90,000 tonnes grading 30 grams/tonne gold and 600 grams/tonne silver. Recovered grades during the 3 year mine life were about half the indicated grades due to initial mill recovery problems and greater than expected dilution during mining.

The Lawyers deposit has gold-silver mineralization in banded chalcedony-quartz stockwork veins and breccia zones developed in Toodoggone volcanic rocks. Three potential ore zones have been defined to date and recently announced reserves (Schroeter, 1985) are 1 million tonnes grading 7.27 grams/tonne gold and 254 grams/tonne silver. Numerous other epithermal gold-silver deposits in the area are hosted by lower and middle units of the Toodoggone volcanic sequence. These include the Sha, Saunders, Graves, Moosehorn, Mets, Metsantan, Al, JD and Golden Lion prospects. It is interesting to note that most of the known deposits and occurrences are adjacent to two northwesterly striking regional fault structures; the Sha-Baker-Lawyers-Alberts Hump structure and the Saunders-McClair fault system.

Soil, rock and stream sediment geochemistry have proven to be useful tools in the search for epithermal precious metal deposits in the area. Gold and silver give diagnostic signatures, but analyses for copper, lead and zinc are also helpful.

## PROPERTY GEOLOGY and MINERALIZATION

Recent geological mapping by Diakow (1984) shows the area of the Wolf II claim to be underlain principally by lower units of the Toodoggone volcanic sequence. Older Takla volcanic rocks are thrust over Toodoggone rocks several kilometers north.

Much of the claim area covers the gravel-filled valleys of Abesti and Dedeeya Creeks and limited bedrock exposure may be present on slopes on the northern and southern boundaries of the claim.

The lower unit of the Toodoggone sequence in this area (Diakow, 1984) is comprised mainly of reddish ash flow tuffs which are underlain by crudely bedded crystal lapilli tuffs and block breccias west of Dedeeya Creek immediately north of the Wolf II claim. A younger Toodoggone unit of grey-green andesite flows and comagmatic intrusions overlies ash flow tuffs to the northeast.

The northwest extension of the Saunders-McClair fault system apparently occupies Dedeeya Creek valley in the central part of the claim (Gabielse et al, 1976).

Gold-silver mineralization has been identified in Toodoggone volcanic rocks on the Al and Golden Lion properties southwest and northeast of the Wolf II claim. Energex Minerals Ltd. have reported five partially delineated gold-silver zones on the Al property with a combined geological reserve of 145,000 tonnes grading 12.7 grams/tonne gold. These zones are between 5 and 10 kilometers southwest of the Wolf II claim.

## CONCLUSIONS

The Wolf II mineral claim is situated in the Toodoggone River area which is noted for epithermal gold-silver deposits and occurrences.

The claim area is apparently underlain by units of the Toodoggone volcanic sequence, principal host rocks for precious metals mineralization in the district. Significant gold-silver mineralization has been identified on properties north and south of the present claim and one of the principal regional fault systems passes through the central part of the claim.

An exploratory program of the Wolf II claim is warranted on the basis of its geological setting.

## RECOMMENDED PROGRAM

A first phase program of geochemical sampling, and geophysical surveys and mapping of available bedrock exposures is recommended.

Stream sediment samples should be collected from creeks tributary to main drainages and it is recommended that soil and/or rock samples be collected at 100 metre stations along 100 metre spaced flagged compass lines. Soil geochemistry will be only marginally useful on the valley floors of Abesti and Dedeeya Creeks because of local swampy areas and anticipated thicknesses of gravels. Such areas should be explored by magnetometer and VLF-EM surveys in an attempt to locate the Saunders-McClair fault system.

All samples collected should be geochemically analyzed for gold, silver, copper, lead and zinc.

Geological mapping of the claim should include careful prospecting, with particular attention paid to structures, and possible alteration zones.

Contingent on encouraging results being obtained from first phase work, phase two would include more detailed sampling, possibly involving hand trenching of selected areas, and more detailed geophysics.

It would be advantageous to perform as much follow-up work as possible during the first phase because of the high support costs involved in this relatively remote area.

COST ESTIMATE

PHASE I

Geological Mapping and Prospecting	\$ 2,000
Crew Wages	6,000
Camp Costs	3,000
Mobilization and Demobilization	5,000
Helicopter Support	4,000
Analytical Costs	3,500
VLF-EM and Magnetometer Surveys	5,000
Engineering, supervision	2,000
Report Preparation	1,500
Contingencies	<u>5,000</u>
TOTAL OF PHASE I	<u>\$37,000</u>

PHASE II

Follow up sampling, hand trenching	
VLF-EM and magnetometer surveys	<u>\$50,000</u>

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N.C. Carter, Ph.D., P.Eng.



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CERTIFICATE

I, NICHOLAS C. CARTER, do hereby certify that:

1. I am a Consulting Geologist, resident at 1410 Wende Road, Victoria, British Columbia.
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 am a registered Professional Engineer in the Association of Professional Engineers of British Columbia.
4. I have practised my profession in eastern and western Canada, and in parts of the United States over the past 24 years.
5. This report is based on the writer's extensive background in the Toodoggone River area and on published and unpublished reports and maps.
6. I have no direct or indirect interest in the Wolf II mineral claim or in Texpez Oil and Gas Inc.

Nicholas C. Carter  
Consulting Geologist

DATED in the City of Vancouver, this 2nd day of April, 1985.