



PROPERTY FILE

PRELIMINARY GEOLOGICAL REPORT

ON

CERTAIN MINING CLAIMS TULAMEEN AREA, B.C.

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F.L. Croteau, B.Sc. P. Geol. P.Eng.

Vancouver, B.C. December 15, 1969

INTRODUCTION

Acting under instruction from Mr. K. Dixon, President of North American Platinum Corporation Ltd. (N.P.L.) I have carried out a geological study on certain lode mining claims held by that company in the Similkameen Mining Division of British Columbia.

The company also has two placer mining leases in good standing on the Tulameen River and four others that are currently held in the name of individuals who have indicated that it is their intention to convey them to the company as soon as legal arrangements can be effected.

Conditions for examination of the properties in the subject area are normally good and there is a wide range of historical material available for study. The writer has carried out work and various studies in the area over the past four years.

Activity in the Tulameen area is sporadic and embraces both placer and lode deposit studies. The area has been one of considerable contention and full and proper studies and answers to various phases of the area remain unanswered and will do so until fully constructive studies are made on concentration problems, both lode and placer.

LOCATION AND ACCESS

The Tulameen area is located in south-central British Columbia about 20 miles westerly from the town of Princeton and approximately 200 miles by highway from Vancouver. First class paved highways extend to within 15 miles of the properties, the last portion being covered by some pavement and all-weather gravel roads. Railway facilities are available within 10 miles of most of the acreage.

The land holdings are located on the easterly side of the Lodestone, Olivine, Grasshopper complex and placer leases are on the Tulameen River.

Water resources are quite adequate in all areas for lode or placer mining. Good stands of timber are present on both the river bench areas and on the lode claims. Reasonable expenditures will be necessary for internal access roads on the entire property.

CLAIMS

1.

Lode Claims

The lode claims held by North American Platinum Corporation Ltd. are 64 in number and are

designated as fundws:			\mathbf{U}	
•	Map		Number	Record
	NAP	••	1 to 19 inclusive	23614 to 23632
			20 to 23 inclusive	23633 to 23636
			25 and 26	23638 - 23639
		•	27	23954
			28 to 33 inclusive	23844 to 23849
			34	23854
			35 to 37 inclusive	23851 to 23853
			38	23850
			• 39 to 44 inclusive	23855 to 23860
	Snow		18	. 22159
			20	22161
			22 to 27 inclusive	22163 to 22168
			8 to 10 inclusive	22149 to 22151
			30 to 35 inclusive	22171 to 22176
	Strav Cat		· · · ·	11336
	Green Cat			11338
	Yellow Cat		fl	11339
	Red Cat		<i>i</i> 0,	11340
2.	Placer Mining Leases			
	-			
		Napco		PML 1690
		Napco	· · ·	PML 1689
		Albas	; · · · ·	PML 1795
		McCarthy		PML 1782
		Dixon	,	PML 1780

TITLE

The lode claims are held under right of location of the Mining Act of British Columbia by North American Platinum Corporation Ltd. (N.P.L.). The placer leases are also held under location from the Province of British Columbia.

ACREAGE

There are approximately 3,000 acres covered by the lode claims and 480 acres by the placer leases.

5.

HISTORY

The Tulameen area was originally investigated in the mid 1800's when some gold was discovered. Interest never developed until 1885 when substantial placer mining commenced, this reached a peak in 1891 and ultimately declined to a negative position after 1910. There have been sporadic attempts at placer operations since that time but most were minor or disorganized efforts

and as a res vere of short duration.

All operations to date have been strictly placer in native and no systematic work has been carried out on the lode body that may have given rise to the placer components in the local drainage systems. Magnetite or "black sands" have always caused metallurgical and separation problems in placer operations and the Tulameen has been no exception in this regard.

However, during the past two years systematic and constructive research has been carried out on the metallurgical problems inherent to both the placer and lode deposits in the area. The work is in the hands of qualified scientific personnel and is being done with the most advanced equipment presently available.

Dr. Charles Camsell, one of Canada's foremost exploratory geologist, spent a number of field seasons investigating the deposits in the Tulameen area. As a result of this he incorporated his findings in Memoir No. 26 of the Geological Survey of Canada. The review is extensive and well prepared.

TOPOGRAPHY

The Tulameen area forms a portion of the Interior Plateau of British Columbia and is situated near the westerly border of that unit, as a result of its position it forms the "foothill" region bridging the change from the flatter plains area to the mountainous area lying in the vicinity of Hope.

The general appearance is one of broadly rounded summits that give a rolling appearance to the country. The main valleys are broad and U-shaped while the tributary valleys are narrow, steep sided and show a pronounced gradient in their passage to the main valleys. The Tulameen River and Otter Creek valleys are the main ones in the former classification while Granite, Olivine, Champion, Collins Gulch, Hines Creek and numerous others are representative of the latter class.

The highest point in the area is Lodestone Mountain with an elevation of 6,150 feet above sea level while the lowest point is the bed of the Tulameen River at about 2,350 feet above sea level. Total relief approximates 3,800 feet.

The Tulameen River and Granite Creek watersheds comprise the main drainage systems that would effect or carry erosional material from the Olivine and Lodestone Mountain areas.

Gravel deposits of greatly varying depth are widely distributed over the area. These comprise both well sorted, water lain material and unsorted, silty glacial debris. Numerous bench deposits occur along the drainage systems.

A good portion of the area is heavily forested with yellow pine, Douglas fir, jackpine and white spruce. Poplar, birch and cedar are less common.

Water resources are good but the streams are subject to seasonal variation from precipitation and the resultant run-off. Gradient on the Tulameen River between Slate and Granite Creeks averages about 29 feet to the mile, above Slate Creek the gradient rapidly steepens and approaches 100 feet to the mile. Otter Creek shows a very low gradient and is about 0.12 feet per mile. The river below Tulameen village runs in a wide U-shaped valley and the consequent gradient is low until one reaches some distance below the village of Coalmont.

The Lodestone-Grasshopper Mountain ultra-basic complex is an elevated but rounded mountain. Overburden is generally less than 10 feet thick and there are numerous access roads and trails covering portions of the mountain. The better access is from the Granite Creek side of the range.

AREAL GEOLOGY

Broadly speaking the Princeton Tulameen area is represented by a broad southeast to northwesterly trending area of Upper Triassic rock (Nicola Group) consisting of lava, argillite, tuff, limestone, chloritic and sericitic schists. This series has in turn been intruded by igneous rock of early Jurassic age constraints periodotite, pyroxenite and gabbro a. Ill as younger intrusives of Upper Cretaceous age comprised of granite and granodiorite.

The Nicola group has been intruded and in fact enclosed by a massive intrusion that extends in age from a time subsequent to the ultra-basic intrusion, therefore Middle Jurassic, until Cretaceous time. This series comprises gneissic granite, granodiorite and quartzdiorite. It is known as the Coast Intrusion.

Ultra-basic Intrusive

This intrusion is undoubtedly the source from which all platinum group metals in the placer deposits of the Tulameen River and Granite Creek drainage systems have been derived. Gold occurrences likely resulted from lode material in the Oligocene sedimentary series. All magnetite and chromite in the placer state also came from the ultra-basic mass.

The intrusive is of early Jurassic age and occurs in the form of a stock, having a length of 11 miles and an average width of 3 miles. The outline is regular, being a long oval with the main axis in a northwest - southeast direction. The Tulameen River bisects the stock about 1 mile from its northern limit.

The ultra-basic mass is comprised of a peridotite core with a broad surrounding rim of pyroxenite. The contact phase between the peridotite and pyroxenite is gradational over a distance of about 100 feet.

The peridotite on surface weathers a grey to blue-grey color and in many cases shows alteration to serpentine. The crystalline structure is variable and in general the rock is massive and dense. The main mineral components of the peridotite are olivine and chromite, the latter occurring as distinct individual grains or in short, irregular veins and bunches. The veins are usually local in nature while the grains are widely disseminated in the rock mass.

Mineralogical studies indicate the presence of platinum group metals and some gold in association with the veins and bunches of chromite. Magnetite becomes a prominent feature, along with chromate, in the transition zone between the peridotite and pyroxenite. There seems to be a relationship between the presence of pronounced serpentinization and the chromite content. Chromite appears to be a differentiation product of the molten rock in its process of cooling with the chromite segregations being larger and more abundant towards the outer edges of the main peridotite mass. In the Tulameen area the veins and massess of chromite are known to contain a higher percentage of platinum than the massive peridotite, this could also indicate that the platinum may be a product of magmatic differentiation. The chromite mineralization is undoubtedly of primary origin. The chromite is iron black in color, has a bright, metallic lustre, is slightly magnetic and is very resistant to decomposition.

The peridotite mass is quite resistant to weathering and for this reason forms the highest points in the area. The general outline is one of steep but rounded slopes. Indications are that the intrusive mass has also been resistant to earth disturbances that affected the area and for this reason the mass has always been a "positive" area and as such was able to contribute a continuing supply of material to the erosional volume.

The fringing rim of the peridotite body is relatively fresh pyroxenite with only minor indication of metamorphism. The material gives little evidence of faulting, shearing, schisting or brecciation. Locally biotite, chlorite and hornblende schists are formed. The pyroxenite contact with surrounding rocks is not clean cut and regular but exhibits a number of intrusive and dyke-like invasions into the older rocks of the Nicola formation.

The py inite rim carries magnetite in the same manne in the chronite occurs in the peridotite. Magmatic segregation is again in evidence with magnetite occurring as an abundant constituent; locally it is as prominent as the augite which forms the main constituent of the pyroxenite. The magnetite occurs as short irregular veins and in bunches 6 to 8 inches in diameter. It is highly unusual to obtain a specimen with a low magnetite content. The magnetite is definitely of primary origin.

STRUCTURAL GEOLOGY

Structural deformation in the area has been in a north-northwest to south-southeast direction and has resulted in fairly tight anticlinal and synclinal folds. This was likely caused by the nature of the instrusives and from the natural positive buttress effect to the immediate west of the Tulameen area. There is no pronounced fault action associated with the Tulameen River or the ultra-basic mass with which we are concerned. Igneous intrusion has taken place along the north-south lines of weakness and has caused a certain amount of fracturing, fissuring and the production of schistose structures along contact regions.

Due to intensive igneous activity detailed structural interpretation is obscure and since it has no particular bearing on the lands under review no attempt will be made to interpret the situation in this report. $\frac{1}{3}$

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CLAIM GEOLOGY

The lode claims are underlain by the ultra-basic rocks which form the Olivine-Grasshopper Mountain stock. These ultra-basics are peridotite, pyroxenite and various phases of gabbro. Magnetite is commonly present in much of the rock and creates compass fluctuations that vary widely. Dip needle results vary from 10 to 70 degrees over a considerable portion of the area.

The rock is inclined to appear serpentinous and soft. It is bluish-grey on fresh outcrops and weathers to a brownish color. The surface is inclined to be quite irregular although it cannot be described as rough for travel purposes.

There are extensive records of geological conditions relating to the placer environment of the area and the writer has no intention of repeating these facts.

ECONOMIC GEOLOGY

It has been established by a number of reliable sources that the ultra-basic mass of the Olivine Mountain complex carries varying amounts of magnetite, chromite and platinum. Minor amounts of work has been done in establishing the presence of magnetic anomalies and some analytical work has been done on the platinum content. No work of consequence has ever been done on concentration processes for the iron content.

At various times dip needle and magnetometer surveys have been carried out on the mountain and anomalous areas established. Magnetometer readings varying from 2,200 gammas to 32,800 gammas were established by a survey carried out in 1967.

Imperial Metals and Powers Limited have carried out drilling and testing for iron content in the area south of the claim block location and found a definite relationship between magnetometer readings and contained iron in the ultra-basic mass. The ratio was approximately 15% soluble iron per 10,000 gamma reading.

It is indicated that considerable investigation could be done on the ultra-basic mass to establish its true characteristics. Until this is done no proper economic evaluation can be made. Surveys to date have been done on bits and pieces of the lode area and this must be classed as an unsatisfactory method of carrying out a constructive exploratory program.

The w is making no comment on the placer mit pleases since numerous reports and projects have been carried out along the river, again on a piece-meal basis. A constructive drilling and concentration program has never been done and until such a course is followed results will continue to remain in doubt. On such a basis it is neither reasonable to laud or condemn the placer areas.

CONCLUSIONS

- 1. The Olivine-Grasshopper Mountain ultra-basic complex is the only one of consequence within the broad area in which the lode claim group lies.
- 2. The majority of the world's platinum, chromium and nickel come from ultra-basic rock masses and for this reason any such mass should be properly explored.
- 3. Exploration on the Olivine Mountain complex has been sporadic and piece-meal.
- 4. Such surveys as have been carried out indicate an interesting potential in magnetic iron content.
- 5. No deep drilling has been done on the complex and this should, sooner or later, be considered.
- 6. It has been established that platinum and chromite rich streaks occur in the ultra-basic mass and that these materials plus magnetite pebbles find their way into the Tulameen River.
- Effective concentration tests still remain undone and these can only be useful if done in bulk volumes.

RECOMMENDATIONS

- 1. That the lode claim group be thoroughly mapped geologically and that a prospector accompany the geologist to take and prepare adequate samples.
- That lines be cut and a comprehensive magnetometer survey be conducted over the group. A dip-needle survey could be a useful adjunct to this.
- 3. Shallow diamond drilling should be an initial step on some of the more promising anomalies.
- 4. Assays should be carefully conducted and should not be simply limited to fire assay technique. Broad range spectrographic analysis should be made and soluble tests made for iron content.
- 5. Road construction will be necessary to cover some portions of the area this may lead to some constructive stripping and trenching of rock areas.

The estimated cost of the above program would approximate:

Stage 1

Ceological manning and prospecting	
- 2 men for 2 months	\$ 5,000
Line cutting at 500' intervals – 60 miles at \$100 per mile	6,000
Magnetometer and Dip Meter surveys - 60 miles at \$75 per mile	4,500
Road construction, stripping, trenching	7,000
Camp maintenance	2,000
Engineering and supervision	3,000
Assaying	1,000
Travel, compensation, insurance, etc.	2,000
Total Stage 1	\$30,500

Stage 2

Conditional on Stage 1

Diamond drilling

-2,000 feet at \$15 per foot

Assaying

Engineering and supervision

Total Stage 2

Overall cost of programs

\$30,000	
1,000	•
3,000	
\$34,000	
\$64,500	

Respectfully submitted,

"F.L. CROTEAU" F.L. Croteau, B.Sc. P.Eng. P.Geol.

Vancouver, B.C. December 15, 1969

"SEAL"

CERTIFICATE

I, F.L. Croteau of 1055 West Hastings Street, in the City of Vancouver, British Columbia certify that:

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- 1. I am a graduate of the University of Saskatchewan and hold the degree of B.Sc. in Mining Geology.
- 2. Year of graduation was 1936.
- 3. I have practised my profession in Canada, the United States, Mexico and the West Indies since 1936.
- 4. The claims are staked in accordance with the Mining Act of British Columbia and are in good standing for assessment work purposes.

5. I have no interest, direct or indirect in the lands or securities of North American Platinum Corporation Ltd. (N.P.L.). I have claimed an interest in some of the escrow stock of North West Minerals Ltd. (N.P.L.) for work done and cash expenditures made on behalf of that company. Nothing official has been done in regard to this claim.

6. This report was made from personal visits to the claims, prolonged study of most available reports both governmental and otherwise and a broad knowledge of the entire area in question.

"F.L. CROTEAU" F.L. Croteau, P.Eng.

Vancouver, B.C. December 15, 1969

"SEAL"



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A REAL PROPERTY AND A REAL



North American Platinum Corp. Ltd. (N.P.L.) Suite 404 - 550 Burrard Street Vancouver, British Columbia

Gentlemen:

Re: Report of F.L. Croteau, Pro.Eng. on your Tulameen Property I have studied the report of Mr. Croteau dated December 15th, covering your property on Olivine-Grasshopper Mountain in the Tulameen area. I concur with conclusions and recommended work programs as outlined in the report.

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Yours very truly,

James D. Mason Prof. Engineer

"SEAL"

CERTIFICATE

I. J.D. Mason of 810-955 Marine Drive, West Vancouver, hereby certify that:

- 1. I am a graduate of the University of Alberta (1937) in Mining Geology and have practised my profession continuously since graduation.
- 2. That I am a member of the Association of Professional Engineers in the Province of Ontario and British Columbia.
- 3. That I have examined the Tulameen Property covered by Mr. Croteau's report of December 15, 1969.
- 4. That I have no interest in the Tulameen Property of North American Platinum Corporation nor in the stock of the Company nor do I expect to obtain any interest in the property or in the Company stock at any time.

J.D. Mason, Professional Engineer

Vancouver, B.C. June 5, 1970

"SEAL"

F.L. CROTEAU LTD.

June 15, 1971

Mr. K. Dixon President North American Platinum Corporation Ltd. (N.P.L.) Suite 404 - 550 Burrard Street Vancouver, B.C.

Dear Mr. Dixon:

Acting upon your instruction I am re-submitting a report that I prepared for North American Platinum Corporation Ltd. (N.P.L.) on December 15, 1969 and in addition I am including a revision covering certain assessment and exploratory work that has been carried out on the claims since that date. I am also including for informational purposes a metallurgical report prepared and submitted by a Mr. John Gordy.

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There would be no object in completely re-writing my report since the basic information and factors contained therein have the same geological aspects as originally set out. There would be little change in the recommendations or the monies necessary to carry out the suggested program.

Attached to my original report as an exhibit is the attestation required from Mr. James D. Mason. P.Eng.

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N. H Respectfully submitted,

"F.L. CROTEAU" F.L. Croteau

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SUPPLEMENTARY F ORT

NORTH AMERICAN PLATINUM CORPORATION LTD. (N.P.L.)

on

MINING CLAIMS NAP 19, 28 AND 29 TULAMEEN AREA, B.C.

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F.L. Croteau, B.Sc. P.Eng. P.Geol.

Vancouver, B.C. June 15, 1971

RECENT DEVELOPMENTS

During the month of September, 1970 considerable work was carried out on mining claims NAP 19, 28 and 29. This work can be considered both as exploratory in nature and as assessment work necessary on the ground: The work was performed under the direction of Mr. Charles M. Leighton and consisted of various types of rock and overburden trenching.

Specific detail is contained below and upon a sketch map accompanying this report. I might align

Mining Claim NAP - 19

Work consisted of an open cut approximately 110 feet long, 60 feet wide and ranging from 5 to 8 feet deep. The work revealed rock mainly schist and argillite in type with minor inclusions of andesitic breccia occurring as possible dyke like formations. Some limestone was evident.

Mining Claim NAP - 28

Two cuts were made on NAP 28. One 120 feet long, 80 feet wide and up to 30 feet deep. The second was a trench 75 feet long, 40 feet wide and approximately 16 feet in depth. Rock formation was mainly schist with occasional stringers of quartz. Some pyritic mineralization was noted but could largely be classed as of a normal non-ore pyritic type.

Mining Claim NAP - 29

One open cut 125 feet long, 60 feet wide and ranging from 15 to 25 feet was bulldozed on this claim. A second open cut 100 feet long, 40 feet wide and from 10 to 15 feet deep was dug.

Approximately 5000 yards of overburden was removed in connection with the work done on this claim.

The rock encountered was volcanic schist with some intrusions caused from granite porphyry dykes. Blasting was necessary when the granitic materials were cut.

The work while useful in defining rock types on the claims upon which work was carried out cannot be said to have any real bearing on what may be the more real value of the Napco claim group at Similkameen.

Ultimately proper evaluation will have to be made on the main ultra-basic mass existing on the claims. The fact that ultra-basic masses are possible host areas for the platinoid metals, chromium and low-grade magnetite deposits warrants reasonable examination. Such a program should be well prepared for by proper geophysical work, geological mapping and shallow test drilling.

• It ______been brought to my attention that Mr. John Gordy of Pacific Rim Laboratories Ltd., has done certain work relative to "Electro-Oxidation Determination of Platinum and Gold in the North American Platinum Corporation Sands". Upon reading his report it would seem to bear out conclusions that numerous companies have made relative to work necessary to determine the potential for economic mineral recovery on the Tulameen Placers.

A copy of the report is included as an exhibit only.

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ati Dü Respectfully submitted

Vancouver, B.C. June 15, 1971 "F.L. CROTEAU" F.L. Croteau, B.Sc. P.Eng. P.Geol.

CERTIFICATE

I, F.L. Croteau, of 1055 West Hastings Street, Vancouver, in the Province of British Columbia, certify that:

- 1. I am a graduate of the University of Saskatchewan and hold the degree of B.Sc. in Mining Geology. Year of graduation was 1936.
- 2. I am a Registered Professional Engineer in the Province of British Columbia and in the Yukon Territory, a Registered Professional Geologist in the Province of Alberta and hold a licence to practise Professional Engineering in the Province of Saskatchewan.
- 3. I have practised my profession in Canada, the United States, Mexico and the West Indies since 1936.
- 4. I certify the claims in question to be staked according to the requirements of the Mining Act of British Columbia.
- 5. I have been informed that Ainsworth, Henson, Purvis, Norby and Kendall hold a 1000 share certificate of North American Platinum Corporation Ltd. (N.P.L.) common stock in my name as payment for a previous geological debt, this is pooled and under no control of mine. I have also claimed an interest in some of the escrow stock of North West Minerals Ltd. (N.P.L.) for work done and cash expenditures made on behalf of that company. Nothing official has been done in regard to this claim.
- 6. This report is based on personal knowledge of the claims and upon reports and sworn affidavits relative to the work carried out on the three claims in question.

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Respectfully submitted

"F.L. CROTEAU" F.L. Croteau, B.Sc.

P.Eng. P.Geol.

Vancouver, B.C. June 15, 1971

EXHIBIT

Pacific Rim Laboratories Ltd.

Electro-Oxidation Assays Hydrometallurgical and Industrial Pollution Consulting

DATE: March 18, 1971

PREPARED BY: John Gordy

REPORT TO: K.W. Dixon, North American Platinum Co., Ltd.

REPORT NO: EO - NAPCO - 2

SUBJECT: Electro-Oxidation Determination of Platinum and Gold in Napco Placer Sands.

SAMPLE IDENTIFICATION: PML No.'s 1690¹⁷/₁₀1689, 1795 - Located on Tullameen River - NAPCO INTRODUCTION: Samples of NAPCO placer sands screened to one-quarter mesh were submitted by K.W. Dixon for platinum and gold determinations.

DISCUSSIONS: The evaluation of NAPCO placer sands involved two important factors -

(1) The amounts of gold and platinum occurring in the placer sands.

(2) Of equal importance, the component of the placer sand containing these values.

The placer sample contained a mixture of one-quarter inch rocks and fine sand. There have been many theories advanced as to the component in which platinum occurs in Tullameen river sands.

'The author having developed a method of extracting platinum from placer sands that gives scientific and reliable results, conducted a technical study to determine exactly in which fraction platinum and gold values occur.

It must be remembered that the platinum and gold must be recovered economically in order to have a mine. Knowing the fraction, the rock or fine sand which carries platinum-gold values would enable judgments to be made on the best methods of producing an economic concentrate for platinum-gold recovery.

METHOD: Based on the above reasoning and the conduction of a scientific study to determine exact data, the placer sand was treated as follows:-

1. The sample was screened into two fractions -

(a) a fine sand which passed through a 20-mesh screen

(b) one-quarter inch rocks which contained black and green rocks.

The fine sand was treated in the Electro-oxidation cell to recover platinum and gold in a very concentrated form. The platinum-gold concentrate was assayed by a professional assayer (Crest Laboratories).

The one-quarter inch rocks were crushed and ground and subjected to electro-oxidation and assay also.

The concentrate and residues were both tested for gold and platinum to ensure 100% extraction of values.

RES	ULTS:		•	
	Sample	Results	Pt. Values	Au
(1)	20-mesh screen	A. Concentrate B. Residue	.03 mg. none	0.13 mg. none
(2)	One-quarter in. rock	A. Concentrate B. Residue	none none	trace none

INTERPRETATION OF RESULTS:

The results clearly show platinum-gold values occur in the fine sands and this occurrence is supported by scientific-geological studies on the weathering of platinum bearing minerals.

RECOMMENDATIONS AS TO ACTION:

1. As the platinum-gold values occur in the fine screened sand it is recommended that an economic study be carried out to determine the exact cost of producing this material.

2. A study be carried out to determine the cheapest way of concentrating the platinum-gold values in the screened material.

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RECOMMENDATIONS AS TO METHODS:

Step 1. Screened fine sand could be prepared by the use of a frontend loader and a vibrating screen. The screening could be carried out wet or dry, depending on the crude gravel encountered.

The cost of producing one ton of fine sand at three different locations taken at random could be used as an average cost figure over the claims.

This study would determine whether it would be economically feasible to proceed to

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Step 2. Assuming the fine sand would be stockpiled in one location a ball mill grinder could be set up in conjunction with a conveyor belt to feed the screened sand into the continuously rotating ball mill grinder (modern, large tonnage, mining practice). The fine ground flour waste sand could be floated by water, leaving a heavier concentrate of platinum-gold bearing material.

SUGGESTION:

It is strongly suggested that the above studies be carried out in a scientific manner with a careful selection of samples to be used for control tests and the conduction of accurate platinum-gold analyses. Failure to institute a reliable program will only result in a meaningless effort and a waste of money.

CONCLUSION:

- 1. The sample as tested contained platinum-gold values.
- 2. Screening studies should give data as to costs of producing a suitable concentrate.
- 3. The occurrence of platinum-gold values and studies into the producing of concentrates may lead to an economic venture.

"J. GORDY" John Gordy Electro-Oxidation Consultant

