REPORT ON

EVALUATION OF GOLD POTENTIAL

SCROGGIE CREEK PLACERS (4955 YUKON LTD.)

DAWSON MINING DISTRICT, YUKON

FOR

BURNT ISLAND GOLD LTD.

BY

REIMCHEN URLICH GEOLOGICAL ENGINEERING

Vancouver, B. C.
Canada

October 1984
File: 115-06

120059

Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

TRANSMITTAL FORM

M.R. File No.
R.M.M.R. File No.
Date Fwd. 20 Nov 84

ROM: Mining Recorder at Dawson

OFFICE OF THE REGIONAL MANAGER MINERAL RIGHTS NOV 23 1984 WHITEHORSE YUKON TERRITORY

O: Regional Manager, Mineral Rights at Whitehorse, Y.T.

OR ACTION ARE:

- [ ] NEW APPL'N for PLACER LEASE to PROSPECT : Name:
- [ ] RENEWAL APPL'N PLACER LEASE to PROSPECT : Name: Lease No. . . . .
- [ ] AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name: Lease No. . . . .
- [ ] SECURITY DEPOSIT
- [ ] FINANCIAL ABILITY
- [ ] ASSIGNMENT of PLACER LEASE No. ....
  From: To:
- [ ] GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.
  Owner:
- [ ] DIAMOND DRILL LOGS:
  Claims: Claim sheet no.:
- [ ] PLACER ~~XXXXXX~~ ASSESSMENT REPORT: *Evaluation*
  Claims: MB #1-27, Co. Disc 1-4
  Claim sheet no.: 115-0-2

Type of report:

Submitted by: 4955 Yukon Ltd.

Cls. work performed on: MB #14-27

$ Req. for ren. application: $6,200.00

Please note that this is our only copy of the report, so please return this one when approved *or have copy made if you would. Thanks.*

Signature

EPLY ACTION. Date Ret.

Canada

Signature

11.0 EXECUTIVE SUMMARY

Field testing of placer ground on Scroggie Creek, 100 km (62 miles) south of Dawson, Yukon Territory, has resulted in the delineation of between 3,700,000 and 4,500,000 yd^3 of economic gravel.

These gravels which are situated on a high bench above Scroggie Creek, are the remains of rivers which flowed at roughly the same time as the "White Channel" gravels around Dawson.

The overall grade of the Scroggie Creek placer ground under option to Burnt Island Gold Ltd. is between Can$8 to $10/$yd^3$ (U.S.$337.00) allowing for 910 fineness.

A minimum net profit of $3.00/$yd^3$ can be achieved if mining utilizing centrifugal recovery is practiced.

No permafrost will exist in the gravels for the first two mining seasons. The reason for this is that previous operations cleared overburden and vegetation from an area measuring 1000 m (3300 ft.) by 600 m (2000 ft.).

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1.0 INTRODUCTION

1.1 Purpose

Reimchen Urlich Geological Engineering (RUGE) was commissioned by Burnt Island Gold Ltd. to evaluate the gold potential of the Scroggie Creek placer claims (4955 Yukon Ltd.) in the Dawson Mining District, Yukon Territory.

1.2 Scope

The following scope of work was performed:

(1) interpretation of air photographs and review of literature pertinent to the claim area;

(2) field exploration including geologic mapping, bulk sampling and primary processing;

(3) laboratory testing including secondary processing and fire assays to determine gold content;

(4) geological and engineering assessment of data obtained and evaluation of gold potential; and

(5) preparation of this report, complete with data summary, maps, sections, conclusions and recommendations.

1.3 Terms of Reference

The completed scope of work was performed in accordance with our July 30 1984 letter and subsequent communications between officers of Burnt Island and Ted Reimchen of RUGE.

1.4 Responsibilities

Ted Reimchen, M.Sc., P.Geol., geologist and partner of RUGE, was responsible for project management, direction and co-ordination. He initiated the geological mapping, the geologic interpretations, field sampling and material processing, performed and evaluated the gold potential and mining feasibility of the claims.

Ebo Bakker, M.Sc., geologist of RUGE, was in charge of the field program. He performed the geologic mapping, directed the field sampling and material processing, assisted with the geologic interpretation and gold potential evaluation, and assisted with the preparation of this report.

Cecil Urlich, M.Sc., P.Eng., geotechnical engineer and partner of RUGE, was in charge of the laboratory program. He directed the sample preparation and screening, performed the tabling, calculated the gold values, assisted in evaluating mining and processing alternatives, and outlined this report.

Specific responsibilities were delegated within RUGE to Meheram Sugrim (primary processing, secondary screening and gradation analyses), Pat Whiting (report preparation), Ian Thomson and Jack Scrivener (drafting) and Bobbie Grimard (typing).

Fire assays and gold weighing were completed by Larry Wong, certified assayer of General Testing Laboratories of Vancouver. Ron Campbell and Larry Bratvold of Barker Creek Placer Exploration Corp. of Whitehorse supplied equipment and additional manpower for the field program, and organized its mobilization and demobilization.

2.0 PROPERTY DEFINITION

2.1 Ownership

4955 Yukon Ltd. of Whitehorse, reportedly owns the following 31 claims on Scroggie Creek in the Yukon Terriroty:

Type	Number	Claim Number
placer claim	27	P24849 - P24875
co-discovery claim	4	P24879 - P24882

All of these claims have been grouped together and are referred to in this report as the Scroggie Creek claims, the subject claims, or the subject area.

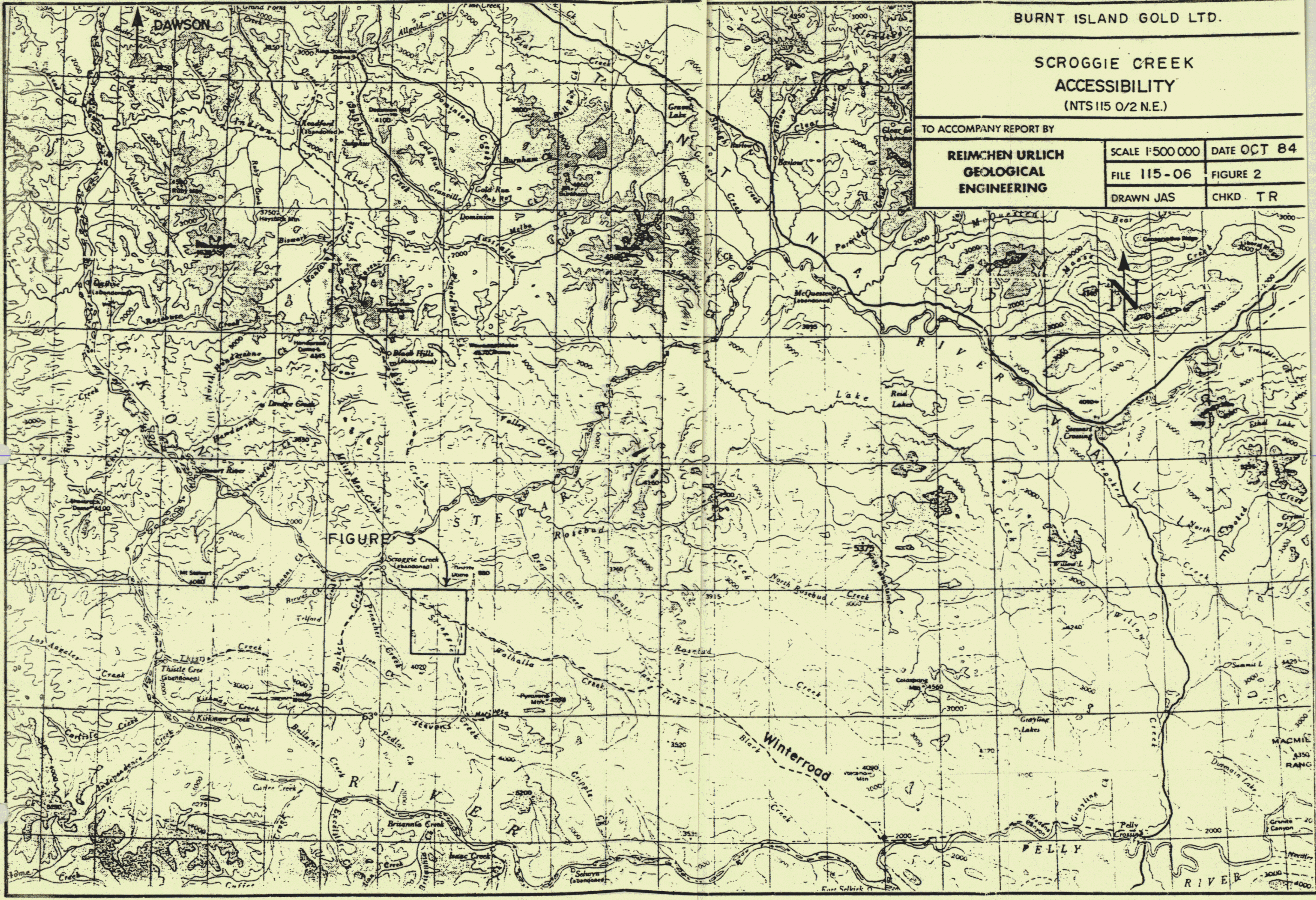
2.2 Location

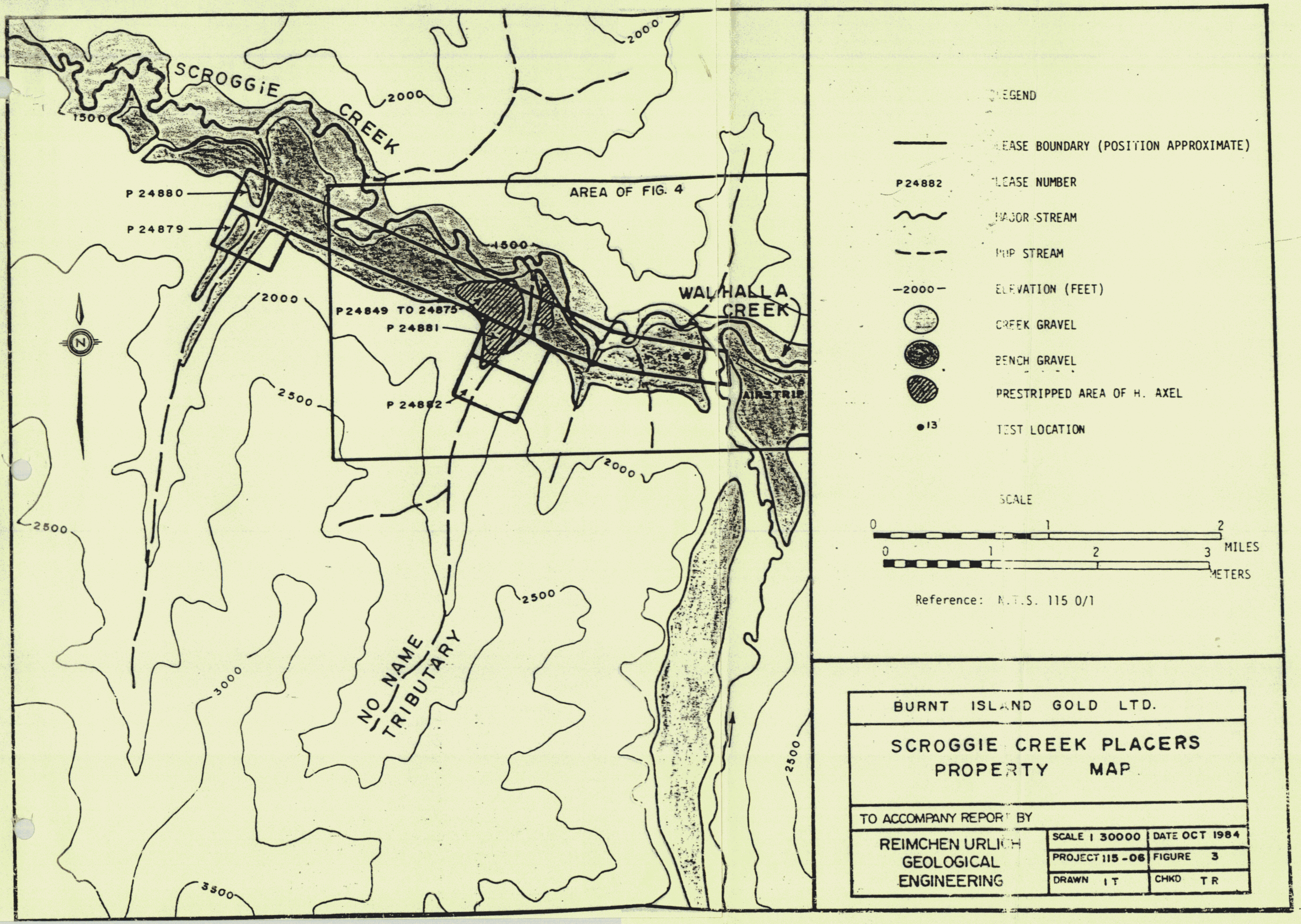
Scroggie Creek is located in the southwest part of the Yukon Territory, approximately 100 km (62 miles) south of Dawson and 140 km (85 miles) west of Pelly Crossing. The creek is a tributary to Stewart River, 35 km (22 miles) upstream of the Stewart and Yukon River confluence (Figures 1 and 2).

The 27 claims are located on the bench on the south side of Scroggie Creek and extend for approximately 5 km (3.1 miles). The eastern most claim boundary is approximately .25 km (.16 miles) upstream of the junction with Walhalla Creek (Figures 2 and 3).

The 4 co-discovery claims are adjacent to the bench claims and cover the lower end of two tributaries to Scroggie Creek (Figure 3).

BURNT ISLAND GOLD LTD.			
SCROGGIE CREEK AREA LOCATION			
TO ACCOMPANY REPORT BY			
REIMCHEN URUCH GEOLOGICAL ENGINEERING	SCALE 1:2500,000	DATE OCT 1984	
	PROJECT 115-06	FIGURE 1	
	DRAWN JAS	CHKD TR	


BURNT ISLAND GOLD LTD.
SCROGGIE CREEK
ACCESSIBILITY
(NTS 115 O/2 N.E.)
TO ACCOMPANY REPORT BY
REIMCHEN URLICH GEOLOGICAL ENGINEERING
SCALE 1:500 000
DATE OCT 84
FILE 115-06
FIGURE 2
DRAWN JAS
CHKD TR
DAWSON
FIGURE 3
Scroggie Creek (abandoned)
STEWART
YUKON
RIVER
Winterroad
PELLY
RIVER
Stewart Crossing
Pelly Crossing
McQuesten (abandoned)
Dominion
Gold Run
Black Hills (abandoned)
Rosebud
North Rosebud
Walhalla
Black Creek
Kirkman Creek
Thistle Cree (abandoned)
Selwyn (abandoned)
Britannia Creek
Isaac Creek
Ballarat
Barlow
Reid Lakes
Grayling Lakes
Ethel Lake
MACMIL
RANG
Granite Canyon



BURNT ISLAND GOLD LTD.

SCROGGIE CREEK PLACERS PROPERTY MAP

TO ACCOMPANY REPORT BY

REIMCHEN URLICH GEOLOGICAL ENGINEERING

SCALE 1 30000	DATE OCT 1984
PROJECT 115-06	FIGURE 3
DRAWN I T	CHKD T R

2.3 Accessibility

Road access to Scroggie Creek from the Whitehorse-Dawson highway is only possible in winter. This access follows the historical Dawson-Whitehorse wagon road which runs west from Pelly Crossing and along Walhalla and Scroggie Creeks. The closest point to the subject claims that can be reached by all-weather roads is on Black Hills Creek which is located 100 km (62 miles) from Dawson and 35 km (22 miles) from the Scroggie Creek claims across the Stewart River (Figure 2).

An airstrip is located just southeast of the subject claims at the junction of Scroggie and Walhalla Creeks.

In the early 1900's, summer transport was provided by steamers on the Yukon and Stewart Rivers. Transport by barge on these rivers is still a possibility.

3.0 LANDSCAPE AND CLIMATE

3.1 Landscape

The Scroggie Creek area is situated in an unglaciated part of the Cordilleran Physiographic Region and is characterized by a plateau area composed of long ridges spreading from a central divide. These ridges are separated by closely spaced small creeks which merge into larger streams in gradually widening valleys. The drainage pattern is radial on a regional scale and dendritic on a local scale. Stream gradients are even and uninterrupted by rapids or lakes. Valleys are V-shaped with sides flaring upwards and diminishing in steepness until the broad, rounded ridges of the upland are reached. Intermittent bedrock terraces carved by former streams along many of the larger valleys are mantled by variable thicknesses of gravel, sand and soil. These ancient stream levels have more gentle gradients than the present streams.

Elevations in the Scroggie Creek area range from 366 m (1200 ft.) above sea level at Stewart River to 1387 m (4551 ft.) at Pyroxene Mountain. The claims are located at elevation 460 to 488 m (1500 to 1600 ft.) above sea level (Figures 2 and 3).

Forest growth is generally sparse. Trees grow on the flat valley floors as well as in the draws and on the hillsides to approximately 1065 m (3500 ft.) above sea level. Black spruce and birch are the most common of the forest trees. They grow at all elevations up to the timber lines. Poplar and white spruce are less common. Level areas are mainly covered with muskeg.

3.2 Climate

At least five months of the year are favourable for surface work. Rivers generally open up in early May and freeze-up starts any time after mid-October. Occasionally rivers remain open until early November. Because of almost continuous daylight during June and July, work in the summer can be conducted around the clock. Winters are cold but not extreme. Precipitation is normally not heavy and approaches semi-arid conditions during some seasons. Nearly all of the surficial materials are perpetually frozen (permafrost) from close to ground surface down to bedrock. In summer melting generally does not extend deeper than 100 cm (3 ft.) below the ground surface.

4.0 HISTORY

4.1 1898 to 1915

Following the discovery of gold in the Dawson area in 1896 and the subsequent gold rush, a number of tributaries near the confluence of Stewart and Yukon Rivers was stampeded and staked during the latter part of 1898. Scroggie Creek was "discovered" by J. G. Stephens and H. le Duke on August 27, 1898. This discovery took place 10.8 km (6.7 miles) upstream of the Scroggie-Walhalla Creek junction. On the same date, two claims above Discovery were staked by the Scroggie brothers.

The Scroggie concession, extending 4 km (2½ miles) above to 4 km below Discovery, was held by E. B. Scroggie from October 1900 to April 1906. The total gold recovered from this property probably did not exceed 118 to 176 oz. After April 1906, some of the claims were staked on the same ground by others, but minimal prospecting and mining was carried out.

In 1911, significant amounts of gold were reportedly discovered 2.4 km (1.5 miles) above Discovery. In the first year it was reported that 353 oz. of gold were recovered. In September 1915, 1,176 oz. of gold were recovered. Base lines on Scroggie and Walhalla Creeks were surveyed in 1912.

In the summer of 1915 about 20 men mined Claim 9C above Discovery upstream on Scroggie Creek and its tributary Mariposa Creek (Figure 2). During the winter months, 40 to 50 men usually worked the area, which included ground downstream of Claim 9C to the Walhalla Creek junction. A few prospect holes were reportedly located in the valley, 4.8 to 6.4 km (3 to 4 miles) downstream of the junction. Bedrock was found to exist 6 m (20 ft.) below the ground surface.

Mining in the early part of this century seems to have been confined to the valley bottom although gold on benches of Eldorado Creek had been discovered in 1897. Mining was done by drifting, the frozen gravels were thawed by wood fires and later by steam thawing.

The total amount of gold produced during 1898 to 1915 from Scroggie Creek and its tributaries is estimated to be 2,940 to 4,410 oz., but might be as high as 5,880 oz. Gold assays performed on placer gold from Scroggie Creek during this period yielded fineness values ranging from 891 to 930.

4.2 1916 to 1933

From 1916 to 1933, it appears that mining activities in the area were in decline. Scroggie Creek is not mentioned in the GSC report during this period, except in a 1918 reference to a reported occurrence of platinum on Scroggie Creek. Available records indicate that the last claims in good standing were held to 1919. A Mr. Greer is reported to have worked the Walhalla and Scroggie confluence area sometime during the 1920's and 1930's. The remains of his cabin can still be seen on the east side of the junction.

Albert Le Boeuf constructed several buildings on the west bench of Scroggie 2 km below the junction of Walhalla and Scroggie Creek on land now owned by 4955 Yukon Ltd. In fact, our exploration party stayed in these old cabins which are still in good repair. Le Boeuf ground sluiced and shafted an area 200 m x 300 m x 4 m thickness during his tenure in this area. The outer limits of the terrace/bench have been ground sluiced to about 4 m. Water was brought to the area by a hand dug ditch about 1000 m in length. Two small steam boilers with steam points are still located on the edge of the bench. These operations began before World War I and were continued by Le Boeuf until the late thirties. He died in Whitehorse in 1941.

From 1932 to 1935, gold gradually increased in value from US$20.67 to $35.00/oz. This resulted in an intensification of operations.

4.3 1934 to 1945

Each year from 1934 to 1940, only a few mines were active on Scroggie Creek, but no placer leases were in good standing. The most detailed information from this period is that in 1935 "a miner working on a bench of Scroggie Creek below the mouth of Walhalla Creek has been recovering a considerable percentage of platinum with his gold". This was Albert Le Boeuf, described previously.

From 1941 to 1945 there were placer leases (probably above Discovery) in good standing on Scroggie Creek. These were probably held by Numalaka Mining Company Limited which reportedly prospected from 1944 to 1945, and drilled in 1945. The company did not prove sufficient values to warrant further development.

4.4 1946 to 1950

By the end of 1945, increasing labour and supply costs caused the closing down of most of the mines in the area. The continuation of this trend, coupled with a fixed gold price, resulted in large scale closing down of gold mining operations throughout Canada during the late 1940's.

In 1948, the Federal government introduced the Emergency Gold Mining Assistance Act. Gold production was subsidized by lowering the royalty to 22½%. Mining then recommenced at most placer mines in the Yukon Territory.

4.5 1951 to 1955

From 1955 to 1958, the Scroggie Creek area received a Federal subsidy on 1758.5 oz. of gold, which probably refers to the activities of George Fant and Ivor Norbeck during 1951 to 1955.

Fant and Norbeck acquired 8 km (5 miles) of placer ground on Scroggie Creek and prospected it in 1951 and 1952. They stripped 12,200 m^3 (16,000 yd^3) in three cuts about 180 m (600 ft.) apart and dug two bedrock draws, each 150 m long by 4 m wide by 3 m deep (500 by 14 by 10 ft.) for sluicing. From 1953 to 1955 they mined with a bulldozer and sluice box and recovered 666.07 oz. of gold.

In 1955 it was decided that the ground was not profitable and the operation was abandoned. Hilker (1981) referring to a 1980 report by G. R. Hilchey locates these claims above Discovery near Mariposa Creek.

4.6 1956 to 1974

Placer mining in the Yukon Territory was low-keyed from 1956 to 1974. In the mid-1960's most placer operations had ceased and by 1966 the last dredge had shut down.

Rising gold prices in the early 1970's created new interest. By 1974, most of the historic producing streams, and many streams flowing through unfavourable geological settings had been staked.

4.7 1975 to 1981

Scroggie Creek is not mentioned in the official mining records between 1955 and 1980. However, Hilker (1981) quoting from the Hilchey report mentions activities during 1975 and 1976 by Yugold Mines Ltd. Testing was done from Claims No. 2 below to No. 10 above Discovery, and on Mariposa Creek, using a D8 bulldozer, rubber tired loader, a small sluice box and two pumps. Reportedly 11.45 and 63.35 oz. of gold were recovered in 1975 and 1976 respectively. We have been informed that this gold was recovered from 765 m^3 (1000 yd^3) of raw feed, which would result in a gold grade of 0.0748 oz/yd^3. Based on a gold price of Can. \$450/oz. this computes to \$33.66/yd^3.

During 1980 and 1981, Herman Axel worked the area where much of September 1984 testing was done (Figure 4 insert). Black overburden soil was stripped by two D8 bulldozers from a large area on the same bench and just upstream from a previously worked area. Some test mining was done on this bench and in the valley, during which both D8s were nearly lost in the thawed overburden.

Herman Axel prestripped a large area of overburden and muck (300 m x 600 m) in the area adjacent to Albert Le Boeuf's cabin (Figure 3). His method of mining involving a 200 yard/hour sluice box resulted in a reported recovery of \$6 to \$8/yd^3. No recognizable organized mining procedure was followed. Material was pushed over 150 m uphill by a D8 bulldozer towards the sluice box perched on a hill top. Since the granitic bedrock in this area is jointed in several directions, the material readily breaks in small sub-angular blocks resembling rusty schistose gravel. This material is barren, yet large volumes were processed across the sluice tables. Recovery on this property averaged \$6 to \$8/yd^3 based on a Can.\$450/oz. gold price. Platinum was also recovered but quantities were not recorded publicly.

Reportedly, 100 to 200 oz. of gold were recovered in 1980, and 1400 to 1500 oz. during two months of 1981 for a total of 1600 oz. Records from Delta Smelting and Refining Co. Ltd. reveal that 1624 oz. of gold were recovered from Scroggie Creek during this time.

4.8 Summary

Drainage areas of all creeks near the Stewart-Yukon River confluence are underlain by rocks of the same geological units as Scroggie Creek. All creeks have probably been prospected in the past. Mining operations have been and are still carried out in several of the creeks, the most famous of which are Scroggie, Barker, Thistle, Kirkman and Brewer. In yearly reports, these creeks are always favourably mentioned as having placer gold potential.

It is clear that most tributaries of the Stewart and Yukon Rivers near their confluence have supported small operations in the 1900's. Some work has probably also been done on nearby creeks which are not mentioned in this report. The full potential of most of the creeks in this area probably has never been explored because of the large and more easily accessible gold reserves that were discovered and worked in the Klondike area near Dawson.

From the available reports it seems that all major mining in the past was confined to Scroggie Creek upstream of the Walhalla Creek junction. All major mining before 1950 appears to have been done in the valley bottoms. No information is available about Walhalla Creek, although prospecting to some extent must have been done.

Some information exists downstream of the Scroggie-Walhalla junction. A few prospect holes were completed in the valley downstream of the subject claims, but no details are available. Platinum was reportedly recovered with gold on a bench below the mouth of Walhalla Creek in 1935, but no location or details are available. Mining was completed by Herman Axel in 1980 and 1981 in the subject claims. Reportedly 1,624 oz. were recovered of which 1,100 to 1,400 oz. were recovered in two months.

Aerial photographs taken in the 1960's show clear evidence of major activities in the area of the subject claims (Figure 4). No reference to these activities could be found except maybe the 1935 platinum report.

5.0 REGIONAL GEOLOGY

5.1 Bedrock Geology

The Scroggie Creek area forms part of the Yukon Cataclastic Complex, a tectono-metamorphic unit characterized by high pressure and relative low temperature metamorphism. Rocks in this Complex consist mainly of Paleozoic metasediments and metavolcanics of the Big Salmon Metamorphic Complex and Nasina Series (gneisses and schists with some quartzite, limestone, slate and greenstone) with widespread Paleozoic granodiorite (Pelly Gneiss) and some small ultrabasic intrusions. These rocks were metamorphosed during the Triassic and Jurassic Tahltanian and Inklinian orogenies (210 to 190 my). Post-orogenic granitic intrusions of Cretaceous age (Coast Intrusion) are fairly widespread and often cover large areas. In a few localities intrusions of Tertiary age occur.

The following rocks all occur in the drainage area of Scroggie Creek: Mica schists and gneisses, quartzite shists and gneissoid quartzite, kyanite schists and garnetiferous granitic and pegmatitic rocks. Occasional dykes and other small intrusive masses of semi-basic to basic rocks also occur. The subject claims are underlain by Cretaceous coarse white granite, and gneisses, schists and limestone of the Nasina Series. Exposures are scarce and occur mainly in the steeper parts of the valley walls along the creeks. Of particular interest is Pyroxene Mountain with a body of massive coarse green pyroxenite. Similar ultramafic bodies are commonly the source of placer platinum and chromite.

The source of the placer gold in the area is not conclusively known, but possible sources are: The Nasina gneisses and schists which underlie much of the drainage basin of Scroggie and Walhalla Creeks, Klondike schists to the north and upstream on Walhalla Creek, or quartz veins associated with Cretaceous granitic intrusions.

5.2 Tertiary-Quaternary Geology

The Yukon Plateau represents a region which was extensively planated (pre-Paleocene to post-Eocene) during a long period of crustal stability. This period was followed by a widespread uplift (late Miocene, Pliocene or early Pleistocene) and rejuvenation of streams, which rapidly incised their channels in the new upland. Between Stewart and Yukon Rivers the only traces of the former upland are indicated by occasional straight-topped ridges. Bedrock is mostly obscured by the products of rock weathering and other surficial accumulations.

A marked feature in connection with the valleys are the terraces, with one main terrace characterizing each creek. The terraces are overlain by stream gravels and represent former, higher positions of the streams. Because of a local uptilt of the land surface or a sudden change in drainage pattern of the main rivers, the streams recently started incising again. This resulted in quite abrupt rock walls rising to the elevations of the former stream positions, or what constitute the present terraces and the deeper, more constricted channels.

No large scale, continental glaciation took place in this part of the Yukon Plateau during the Pleistocene Epoch. However, in the larger valleys, small local valley glaciers have been present for short times. During the Pleistocene, the area was located in the periglacial climatic belt.

Because the valley shapes were not affected by ice, they reflect dominantly fluvial valley development. These shapes range from the V-shaped youthful small creeks (tributaries of Scroggie Creek) to the narrow flat-bottomed mature creeks (Scroggie and Walhalla Creeks) and wider late mature rivers (Stewart).

6.0 FIELD TESTING PROGRAM

6.1 Organization

The Scroggie Creek field testing program was conducted from September 12 to October 15, 1984. The geology crew mobilized and demobilized on September 1 to 30, respectively. All work to October 6 was completed under the direction of RUGE project manager and geologist Ted Reimchen. Subsequent work was directed by RUGE geologist Ebo Bakker. Mr. Gene Hackney, director of Burnt Island, remained on site to September 14.

A 12-inch spinning barrel concentrating plant built by Scott Masterflex (Fabricators) Ltd. of Maple Ridge, B. C., was trucked to Dawson during late August and helicoptered into Scroggie Creek in two parts. A caterpillar D6B bulldozer supplied by Barker Creek Placer Exploration Corp. of Whitehorse, and operated by Mr. Jim Fedell, was driven to the claim area in early September. It got stuck several times on its way in because of the thawed and saturated nature of the ground it traversed.

Messrs. Larry Bratvold and Ron Campbell of Barker Creek organized food and on-site lodging for the field crew, and took care of the logistics of moving in equipment. They remained on-site to ~~September~~ OCTOBER 9, during which time they assisted with the field work.

6.2 Sampling and Mapping

Numerous trenches exist on the subject claims. During the first few days of the program while the bulldozer was coming in, Ted Reimchen reconnoitered the area, started geologically mapping it, planned new trench openings, and selected sample locations from existing trench exposures, new trench sites, and tailings left from the Axel operation. Ebo Bakker subsequently supervised collection of the samples, prepared detailed logs of the sample locations, and continued with geologic mapping of the property. Most of this mapping was done during two days when the bulldozer was being repaired.

Three geologic units, labelled "upper", "middle" and "lower" gravels, were identified (Figure 5). They are described in Chapter 8.0. Sample locations were referred to these geologic units (Table 1).

Material for processing was excavated by the bulldozer from selected locations, shovelled into 45-gallon drums attached to the bulldozer and transported to the spinning barrel plant. For volume calculations the following conversions were used:

1 yd^3 insitu material	=	1.3 yd^3 loose material
1 yd^3 loose material	=	4.65 45-gallon drums
1 45-gallon drum	=	75 shovels

Eighteen samples, labelled SC-1 to 17 (including SC-3A and 3B) were collected and processed (Figure 4 and Table 1). SC-1 to 13 were obtained from trenches on a bench on the south side of Scroggie Creek. They ranged from 0.49 to 0.82 yd^3 insitu. SC-14 comprised 0.53 yd^3 from Axel's tailings pile. SC-15 to 17 comprised 7 to 25 lb. of material obtained from Axel's spiral tailings, sluice tailings and material found in a tub.

TEST NUMBER	GEOLOGIC UNIT	LOOSE MATERIAL PROCESSED(YD^3) *	EQUIVALENT INSITU VOLUME(YD^3) **
SC- 1	lower gravel	0.72	0.55
SC- 2	lower gravel	0.59	0.46
SC- 3A	lower gravel	0.65	0.50
SC- 3B	middle gravel	0.56	0.43
SC- 4	upper gravel	0.76	0.58
SC- 5	upper gravel	0.60	0.46
SC- 6	upper gravel	0.75	0.57
SC- 7	upper gravel	0.66	0.51
SC- 8	middle gravel	0.66	0.51
SC- 9	upper gravel	0.72	0.55
SC-10	middle gravel	0.66	0.51
SC-11	middle gravel	0.60	0.46
SC-12	middle gravel	0.44	0.34
SC-13	lower gravel	0.56	0.43
SC-14	Axel tailings pile	0.43	0.33
SC-15	Axel spiral tailings	25 lb.	25 lb.
SC-16	Axel sluice tailings	7 lb.	7 lb.
SC-17	Axel tub material	24 lb.	24 lb.

* Loose processed material volumes were calculated on the basis of:

$1\ yd^3 = 4.65$ 45-gallon drums

1 45-gallon drums = 75 shovels

** Equivalent insitu material volumes were calculated on the basis of a 1.3 swell factor.

TABLE 1 FIELD TESTING PROGRAM DETAILS

SC-1 to 14 were processed through the spinning barrel. SC-15 to 17 were sent to Vancouver for concentration. Representative sub-samples of SC-1 to 13 were returned to Vancouver for gradation testing.

6.3 Primary Processing

The 12-inch spinning barrel test plant was set up by a tributary to Scroggie Creek. It was powered by a Honda EG 3000 generator and supplied with creek water by a Honda 1.5 HP pump. Each sample was shovelled onto a 3/8-inch screen and washed. Oversize material was visually inspected for gold and discarded, and undersize material was processed through the spinning barrel (Figure 6).

The resultant primary concentrate was washed through a 1/4-inch screen to reduce its volume. The oversize was visually inspected for gold and discarded. Undersize material was stored in bags and trucked to Vancouver for secondary processing.

Meheram Sugrim of RUGE operated the test plant under the direction of Ted Reimchen and Ebo Bakker. During processing he washed material through the screens and collected the primary concentrate. He was assisted by Zdenek Bidrman of Barker Creek, who shovelled material onto the screen deck, and by Jim Fedell the bulldozer operator.

7.0 LABORATORY TESTING PROGRAM

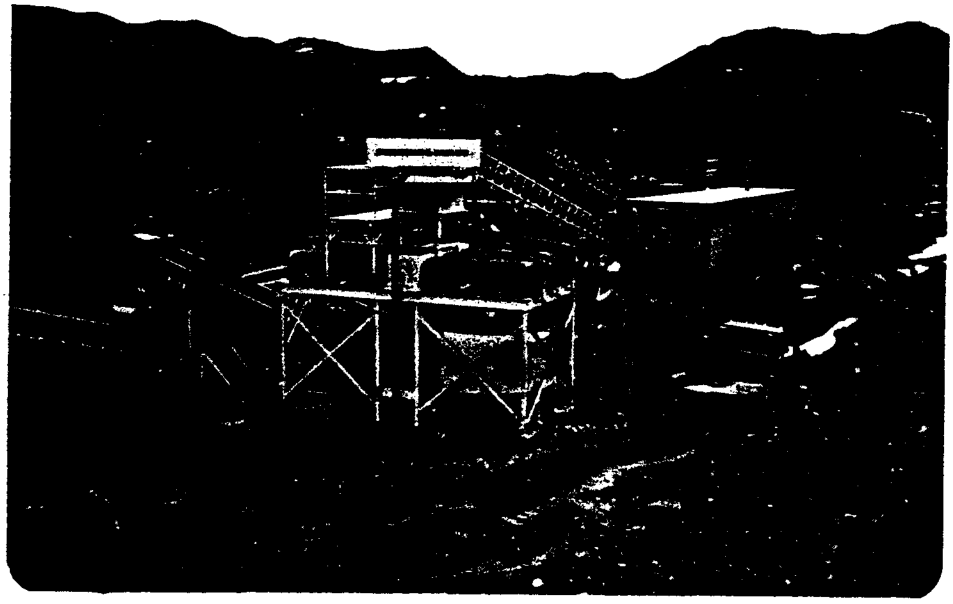
7.1 Preparation

The primary concentrates arrived at our North Vancouver laboratory September 28. They were washed through the No. 10 sieve size on September 29 and 30 in preparation for Diester table secondary concentration. Oversize material was inspected for gold and retained.

7.2 Secondary Processing

Primary concentrates from SC-1 to 17 were processed over a Diester table by RUGE geotechnical engineer Cecil Urlich on October 1 and 2. Four table products were

Test plant used for Scroggie field program.



Production plant used in Atlin placer operation.

BURNT ISLAND GOLD LTD.					
PHOTOGRAPHS OF SPINNING BARREL TEST AND PRODUCTION PLANTS					
TO ACCOMPANY REPORT BY					
REIMCHEN URLICH GEOLOGICAL ENGINEERING	SCALE	Photos	DATE	Oct. 84	
	FILE	115-06	FIGURE	6	
	DRAWN	IT	CHKD	CU	

obtained; free gold, secondary concentrate, middlings, and tailings. Dried secondary concentrates from SC-1 to 14 ranged from 610 to 2434 g which represent overall concentration ratios ranging from about 500 to 2000.

Free gold particles were handpicked out with tweezers, placed in vials, and submitted to General Testing for weighing (Appendix, Tables A1 and A2). Secondary concentrates were dried and split roughly in half. One-half was submitted to certified assayer Larry Wong of General Testing for fire assay for gold content. In addition, assays for platinum and chromite were requested for SC-2, 11 and 12.

Middling products for each sample were stored in separate buckets. Tailings SC-1 to 9 and 10 to 17 were grouped into two buckets, respectively.

7.3 Gold Analyses

For each concentrate submitted, General Testing conducted fire assays in triplicate (Appendix, Tables A3 and A4). The assay results were averaged and combined with the weights of free gold to compute the gold value of each sample (Table 2). A present gold price of Can$450/oz. and a fineness of 0.91 were used in the calculations.

It is interesting to note the large variation of up to several orders of magnitude of the triplicate assay results within several of the samples. It is also evident that the amount of gold handpicked out of the tabled concentrate was generally much larger than the total content in the balance of the concentrate as determined by fire assay.

Gold values in the raw ground can be summarized as follows:

Geologic Unit	Number of Tests	Test Locations	Range of Values ($/yd^3)
upper gravel	5	SC-4,5,6,7,9	0.01 to 0.11
middle gravel	5	SC-3B,8,10,11,12	0.04 to 4.20
lower gravel	4	SC-1,2,3A,13	1.44 to 15.08
Axel tailings	4	SC-14,15,16,17	0.17 to 484.48

7.4 Platinum and Chromium Analyses

General Testing conducted single fire assays on sub-samples of SC-2, 11 and 12

GEOLOGIC UNIT	TEST NUMBER	INSITU VOLUME (yd^3)	WEIGHED GOLD (mg)	ASSAYED GOLD (mg)	TOTAL GOLD (mg)	GOLD CONTENT (oz/yd)	GOLD VALUE * (Can$/yd^3)
Upper Gravels	SC-4	0.58	-	2.183	2.183	0.0001	0.05
	SC-5	0.46	-	1.190	1.190	0.0001	0.04
	SC-6	0.57	-	0.292	0.292	0.00002	0.01
	SC-7	0.51	-	0.396	0.396	0.00002	0.01
	SC-9	0.55	-	4.472	4.472	0.0003	0.11
Middle Gravels	SC-3B	0.43	-	1.097	1.097	0.0001	0.04
	SC- 8	0.51	1.056	4.729	5.785	0.0004	0.15
	SC-10	0.51	1.556	4.714	6.270	0.0004	0.16
	SC-11	0.46	142.915	3.511	146.426	0.0102	4.20
	SC-12	0.34	15.120	1.210	16.330	0.0015	0.64
Lower Gravels	SC- 1	0.55	370.044	24.137	394.181	0.0230	9.44
	SC- 2	0.46	432.036	94.779	526.815	0.0368	15.08
	SC-3A	0.50	33.788	20.850	54.638	0.0035	1.44
	SC-13	0.43	179.170	31.288	210.450	0.0157	6.44
Axel Operation Remnants	SC-14	0.33	4.096	0.254	4.350	0.0004	0.17
	SC-15	0.0093	338.866	3.331	342.197	1.1831	484.48
	SC-16	0.0026	-	1.158	1.158	0.0143	5.86
	SC-17	0.0089	0.964	0.507	1.471	0.0053	2.17

Gold values are based on a price of Can$450/oz. and fineness of 0.91

TABLE 2 GOLD TEST RESULTS

concentrates for platinum and chromium (Appendix, Table A5). Analyses of these results yielded values of less than Can$0.01/yd^3 for the insitu material. A standard multi-element analyses is presently being conducted on SC-11 concentrate by Chemex Labs Ltd. of North Vancouver.

7.5 Gradation

Moisture contents were determined on representative sub-samples of SC-1 to 13 in accordance with ASTM Designation D2216-71. They were computed as a percentage of the dry weight of the material by calculating the weight of water removed in drying samples in an oven (Appendix, Figures A1 to A4). It should be noted that the samples were collected from trench exposures which are better drained than non-exposed soils. Therefore, the moisture values obtained should not be considered representative of the entire property.

Gradation tests were completed on the same sub-samples in accordance with ASTM Designation D422-63 for the purpose of providing mine equipment design data. Distribution of larger particle sizes was determined by washing each sample through the No. 200 standard sieve (0.075 mm) and then drying and shaking the remaining coarser material through the standard sieve sizes from 2.54 cm (1 in.) down to the No. 200. Samples were then classified according to the Unified Soil Classification System (Appendix, Figures A1 to A4).

8.0 SCROGGIE CREEK SURFICIAL GEOLOGY

8.1 Terrace Description

The Scroggie Creek terrace is pronounced, and extends from near the creek mouth to its head. The terrace is mainly confined to the westward south side of the valley. It is elevated 30 to 38 m (100 to 125 ft.) above the valley bottom at the Walhalla Creek junction. Downstream of the junction, the slope of the terrace is less steep than the slope of Scroggie Creek and therefore the terrace increases gradually in elevation above the valley bottom.

Our Autumn 1984 testing program indicates that the bedrock surface underlying the terrace surficial deposits consists of two broad shallow channels up to 200 m (650 ft.) wide.

Because of repeated freezing and thawing of the surficial deposits, bench materials near steep slopes are prone to mass movement or solifluction. A large area west of the test area is influenced by this. Terrace deposits adjacent to the solifluction slope are partly covered and have been partly removed. The removed deposits end up as colluvium lower down on the slopes. Similar, but smaller scale movements have occurred elsewhere.

8.2 Gravel Description

The Scroggie Creek gravels, being of local origin, are mostly derived from gneissose rock. They are generally flat and tabular, and include sand, cobbles and boulder sized particles. Many well-rounded granitic, pegmatitic and basic (greenstone) clasts also occur. The terrace gravels are called "bench gravels", and those on the floodplains or the present valley floors "creek gravels". They are typical stream deposits of average texture, with large boulders being rare.

Because of the high specific gravity of kyanite and garnet, pebbles rich in these minerals collect with the concentrates and occur in the heavy gravels which carry gold. This occurs especially along Mariposa Creek, and was regarded as an indicator of gold.

8.3 Creek Gravels

No creek gravels were tested during our testing program. Information on these gravels is therefore only available from past mining. In areas where they have been explored, such as above the Scroggie-Walhalla Creeks junction, the creek gravels are shallow and usually overlain by thin overburden deposit. Depth to bedrock ranges from 1.8 to 5.2 m (6 to 17 ft.) with 1.2 to 2.7 m (4 to 9 ft.) of gravels.

Historically, gold distribution was found to be erratic, being dependent not only on the retaining character of the bedrock, but on the bench deposits above. Significant amounts of gold were always found opposite or just below a small tributary or slide from the bench, indicating that gold in the present creek gravels must have mostly originated from the bench gravels. Gold occurred mostly on or in bedrock, 0.3 to 0.9 m (1 to 3 ft.) of which was generally mined.

Gold recovered by past miners near the subject claims is reportedly smaller than the gold from the mined areas upstream, although still of "nugget size". No fine gold was recovered. The gold was reported to be flat and to look more travelled. The gold appeared to be present in pockets and richest in the ¼ m (1 ft.) zone above bedrock. Platinum is reported to be present in significant amounts.

Between Discovery and Mariposa Creeks, gold was reportedly coarse and chunky, and occurred mainly as 1.6 to 8.2 g nuggets of 900 fineness, with very little under 0.4 g. The gold is represented as occurring in small, irregular channels, erratically distributed across the valley bottom. Gravels in one claim contained numerous boulders up to 90 cm (3 ft.) long. The creek gravels in the subject claims are not expected to be much different. It is reported that panning of gravels beside an early century shaft showed "very nice colour".

The creek gravels are locally covered with material slumped from the benches or with fan deposits from tributaries.

8.4 Bench Materials

Bench materials were the only ones tested during our September 1984 testing program. Material encountered in SC-1 to 13 consisted of interlayered silts and gravels as shown in the composite section:

←ground surface
silt and colluvium
gravel (upper)
silt
gravel (middle)
silt
gravel (lower)
x x x
bedrock

Overall gradation is that of sandy gravel with traces of silt (Appendix, Figures A1 to A4). The geologic interpretation of this stratigraphy is discussed in Chapter 8.5 and illustrated in Figure 5.

At least three gravel layers were observed in some trenches (SC-3 and 9). Pinching out of individual silt and gravel layers occurs. The thicknesses of individual layers varies from 0 to 2.30 m (0 to 7.5 ft.). The thickness of the whole sequence from ground surface to bedrock is estimated to average 3.5 m (12 ft.) and the maximum thickness observed was 8 m (26 ft.) in the excavation between SC-9 and 10 (Figure 4).

Most test trenches were collected from the terrace within Co-discovery claim P24882 and the adjoining claims to the north where a tributary enters Scroggie Creek (Figures 3 and 4).

The silt layers are light brown to grey in colour and range from silt to sand in grain size. The silty layers often contained sandy lenses and vice-versa.

The gravel layers are generally medium grained gravels having few clasts over 30 cm (1 ft.) in diameter. The gravels are framework supported, show a poor preferred orientation, and consist of moderately to well-rounded clasts. The matrix of the gravels generally consists of sand and granules which are derived from the breakdown of the intrusive rocks which make up the bedrock. Granule rich lenses occur within the gravels. This indicates that the gravels are of relatively local origin.

All of the gravel layers are similar in nature with the exception that the upper layers contain a large proportion of light coloured granitic clasts, while the lowest layers contain a greater proportion of dark coloured basic and schistose clasts. A tentative correlation between test locations suggests the presence of three gravel layers (Figure 5).

To aid in identifying individual gravel layers in each hole, we have labelled them the "upper", the "middle" and the "lower" layers (Table 1).

8.5 Geologic Interpretation

Our interpretation of all data obtained during this project is that materials exposed in all test sites are facies of at least three different units. These units are river deposits consisting of gravels and silts deposited by single-channel meandering rivers. Imbrication structures indicate flow directions to the northwest. The three streams are superimposed as braided channels on each other (Figure 5).

The silty subfacies are overbank deposits laid down during periodic flooding of the ancient floodplain. The gravels are point bar and channel deposits. These materials were deposited in part by former Scroggie Creeks which flowed along a wide floodplain extending across the Scroggie Creek valley and cut the bedrock terrace which the gravels overlie. Simultaneously material was being deposited in the tested area by the tributary immediately upstream in the form of an alluvial fan (Figure 3). The materials tested are therefore derived from the Scroggie Creek drainage basin as well as from the smaller drainage basin of the pup creek.

8.5.1 Lower Gravels

The lower gravels are generally more silty than sediments above and contain angular pieces of the underlying bedrock. This unit averages 3 to 4 m (10 to 13 ft.) thickness, but ranges to 8 m (26 ft.). It is firm to compact in density and represents the oldest geological unit. The thickness and path of this unit varies because of erosion by younger streams (middle and upper gravel).

Tests taken in this unit (SC-1, 2, 3A, and 13) range from \$1.58 to \$15.08/yd^3. Because our test plant only operated efficiently below 20 mesh, our recovery of coarse gold was negligible. Because Herman Axel's former operation recovered most of its gold in the 10 to 40 mesh size, our values represent minimum values and should be treated as such. The clean up of the top 1 m (3 ft.) of bedrock will enhance grade as placer gold usually increases several magnitudes in this area.

8.5.2 Middle Gravels

This unit is only recognizable in some areas (SC-3B, 8, 10, 11, 12). It tends to consist of light coloured well-washed materials, cross bedded materials, ranging from sand to cobble-size material. The erosional contact with the lower gravels is abrupt to transitional depending where you are. In Herman Axel's working (SC-9) the boundary is defined by boulders up to 80 cm (2.6 ft.) in long diameter lying along a scour mark. In Trench 3, the lower contact is defined by a discontinuous silty layer which has many of the characteristics of a remnant paleosol (ancient soil horizon). The upper contact is marked by an extremely well sorted, horizontally bedded deposit of rusty brown gravels.

The middle gravel unit although absent in some areas can be up to 2 m (7 ft.) in thickness. Gold values from this material range up to Can$4.20/yd^3. In some places "hot spots" will be located as in SC-11. These areas can often be recognized by a 30 cm (1 ft.) layer of silty gravel. All other materials have been removed by later fluvial erosion thus concentrating the precious metals.

8.5.3 Upper Gravels

The upper gravel layer is less than 2 m (7 ft.) in thickness averaging 1 to 1.5 m (3 to 5 ft.). It is characterized by horizontally bedded rusty brown gravels, with no angular pieces of underlying bedrock. The pebbles are well-rounded. No economic values are expected in this unit as can be observed by our test results (SC-4, 5, 6, 7, 9). In some places upper gravels are intermixed with alluvial fan gravels deposited by the tributary pup (Figure 3). Although gold can be recovered from these units, it does not appear to be of economic consideration.

8.5.4 Alluvial Fan Gravels

This unit consists of several facies ranging from silty sands to coarse sand gravel. The material is derived from the unnamed tributary pup (creek) which cuts across the Scroggie Creek bench (Figures 3 and 4). Elsewhere it consists of an unsorted mixture of blocky angular bedrock to well-sorted sand and gravel. This material resembles solifluction or colluvial sediments deposited under a periglacial or permafrost environment. These materials were not tested.

8.5.5 Scroggie Creek Gravels

This unit (Figure 5) although not present on property owned by 4955 Yukon Ltd. nevertheless represents a source of future economic gold. The Scroggie Creek materials are derived from the erosion and washing of former old stream channels. Although the creek itself has not been worked, economic values will be found in this area.

9.0 VOLUMES/OVERBURDEN/GRADE

9.1 Volumes

The bench gravels of this area have been separated into four mappable units. Two of these, the alluvial fan and upper gravels, are considered to be barren and should be treated as overburden. These units vary in thickness from 0 to 3 m (9.8 ft.). Detailed mapping ahead of mining operations will be able to decipher pay gravel from overburden. The overburden is calculated on the basis of observed average thickness and approximates 1,500,000 yd^3 for the entire area. In this area typical "Yukon muck" is absent because gravel forms the surface.

The middle and lower gravels defined earlier in Chapter 8.0 are the mineable units.

The middle gravel will have to be tested to determine their economic potential. In several areas "hot spots" will exist. The volume of this unit has been calculated to approximately 800,000 yd^3.

The lower gravels range from 0.5 to 4 m (1.6 ft. to 13.1 ft.) in thickness throughout the property. About 1 m (3.3 ft.) of bedrock will be simultaneously excavated and run through the operation. In some areas the lower gravel unit forms the surface of the ground and overburden is not present. This allows for an instant economic return. The lower gravel unit contains values up to \$15.08/yd^3 where tested. Bedrock was not tested. Values on bedrock are expected to approach \$30.00/yd^3. Although detailed mapping has not been performed, excellent exposures in large trenches have allowed us to estimate the volume of this unit to be in the order of 3,700,000 to 4,500,000 yd^3. This volume includes 1 m (3.3 ft.) of bedrock.

9.2 Grades

Our geological mapping and testing has allowed us to separate "pay" gravel layers from barren ground. Of course testing during mining operations will determine in detail what will be classified as overburden.

The economic grade of a property is only really known after mining has been performed. Our experience combined with testing and knowledge of the previous operation has allowed us to make the following conclusions:

(1) Economic Mineable Ground - 3,700,000 to 4,500,000 yd^3 allowing for 1 m (3.3 ft.) of bedrock

(2) Recoverable gold and platinum allowing for 910 fineness will average between Can$8 and Can$10/yd^3 based on a gold price of Can$450.00/oz. ($337.00 U.S.) prices

(3) Overburden will approach 2,500,000 yd^3.

(4) Mining costs including overburden removal should not exceed $5.50/$yd^3$.

10.0 MINING CONSIDERATIONS

10.1 Historical Review

Since 1980 there has been a resurgence in gold placer staking in all areas of North America. Most activity has occurred in the historic Klondike/Dawson, Cariboo/Barkerville and California areas. Within these regions ground previously worked by miners more than a century ago has been restaked. Mining, often on a large scale involving several hundred cubic yards per hour, is occurring with various degrees of mediocre recovery. The reason for this lies mainly with technology.

Machinery capable of moving large volumes of sand and gravel has been improved in the last century. Gold recovery techniques however have not kept pace with this improved materials handling technology. Sluice boxes, no matter how efficient, will only recover placer gold particles in volume down to 60 mesh

(0.25 mm) in size. Early miners were allowed to recover fine gold by placing mercury in a few of their sluice box riffles. This procedure is now banned in most parts of the earth for obvious environmental reasons.

In the last decade there has been an attempt to improve recovery of fine gold which often comprises more than 90% of the total gold. Some of these techniques involve centrifugal concentrators such as spinning barrels and hydrostatic cones which rotate about horizontal and vertical axes, respectively, and are capable of gold recovery to about 500 mesh (0.03 mm). Other devices include jigs capable of sustained recovery to about 100 mesh (0.15 mm) and recently reported from Alaska to recover to 300 mesh (0.05 mm). A cyclonic method of recovery presently under testing by Reimchen Urlich has proven capable of recovery to 15000 mesh (1 micron or 0.001 mm).

10.2 Recovery Criteria

Recovery of fine gold particles in sluicing and tabling operations is adversely affected by surface tension when particles suspended in water are exposed to air. Fine gold and large flakes of flat gold float in water and completely wash away in sluice and other gravity type concentrators. Forces that cause these particles to float or to remain in suspension can be overcome either by the addition of chemical surfactants or by centrifugal accelerations imparted to the particles as they pass through specially designed concentrators. Large scale use of chemicals is expensive and environmentally sensitive. Centrifugal concentrators are practical and are in limited use today.

The geological depositional environment and size of gold particles must be tested and calculated before mining equipment is obtained. According to our recent testing of a nearby Barker Creek property, 30 to 37% of the placer gold was not recovered by a conventional sluice box. These are minimum figures and are probably higher in areas where sand layers predominate over gravel. The same figures would apply at Scroggie Creek. Therefore mining and recovery equipment should be designed and selected to recover gold particles to at least 300 mesh (0.05 mm).

We consider that the best available and proven type of concentrator suitable for recovering gold from the Scroggie Creek placers is the spinning barrel. This conclusion is based on our past work with several concentrators on test and production scales, and with our present evaluation of the Scroggie Creek placers.

10.3 Spinning Barrel Concentrator

Our experience with spinning barrel test plants includes evaluations of several properties in the United States and Canada including Scroggie (Figure 6, upper photo). Our experience on a production level includes mining and gold recovery on a 6-barrel plant near Atlin during the summer of 1983 (Figure 6, lower photo). We assisted with the design of an 8-barrel plant which was originally scheduled for Yukon work but is now being mobilized to Lillooet for gold mining and production.

The Scroggie test plant and the two production plants were built by Scott Masterflex (Fabricators) Ltd. of Maple Ridge. The production plants consist of 20-inch diameter and 8.5 ft. long primary concentration barrels and a single 12-inch diameter and 5 ft. long secondary concentration barrel. All barrels are built of Schedule 40 pipe with circumferential rings and longitudinal ribs welded to their inside walls. These aid in the collection of about 5.2 $ft.^3$ of primary concentrate for each 20-inch barrel and 1.0 $ft.^3$ of secondary concentrate in each 12-inch barrel.

According to Mr. George Scott of Scott Masterflex, the Atlin 6-barrel plant was originally a 2-barrel plant operating at Manson Creek. It was rebuilt in 1983 for Atlin and designed to process 150 to 200 yd^3/hr of insitu material or 25 to 33 yd^3/hr per barrel. Up to 30 to 40% of this volume would be processed through the barrels following screening off of oversize material. Thus each 20-inch barrel is capable of processing 10 to 15 yd^3/hr of screened undersize. These design rates were achieved in Atlin during good working conditions.

The actual rate depends on the screen size which could range from 3/16 to 3/8-inch. The larger mesh would enable more material to pass through the barrels, but would lower the efficiency of fine gold recovery. A finer mesh adds to the material handling cost, but increases the gold recovery efficiency. A 5/32-inch screen has been built into the 8-barrel plant designed for the Yukon. Its owner anticipates mining up to 450 yd^3/hr of insitu material.

10.4 Concentration Operation

Following washing and screening off of oversize particles, undersize material is slurried through a closed end of the horizontal 20-inch spinning barrels and out the open end. As this slurry passes through, centrifugal forces within the barrel generate an acceleration which forces heavy particles to the wall and traps them as a fluid bed between the ribs and rings. As feed continues, lighter particles in this bed are replaced by incoming heavier ones and gold is concentrated. Thus there is very little wear on the barrels because the material particles wear against each other.

For clean up, the feed is stopped and water passed through until it emerges clear from the open end while the barrel remains spinning. The spin rate is then slowed and 5.2 $ft.^3$ of primary concentrate collected from each barrel for secondary processing through the 12-inch barrel. Once the primary concentrate has been passed through the secondary barrel, the same clean up process follows and the resultant 1 $ft.^3$ of secondary concentrate collected.

According to George Scott, the power requirement for a concentrating plant, complete with grizzly, screens and feeder can be based on 7.5 and 3.0 HP for each 20 and 12-inch barrel, respectively.

10.5 Security

While in operation the barrels spin in excess of 150 rpm. Thus it is not possible to identify gold particles within the barrels during operation, let alone pick them out. Indeed, an attempt by an individual to remove material from within a barrel while spinning would result in severe damage to the hand.

Clean ups should be strictly supervised by an owner's representative. The resultant 1 ft.^{3} of secondary concentrate should be delivered promptly to a secured gold room for gold extraction. Thus security around the plant can be easily controlled and presents less opportunity for theft than a conventional sluice operation.

11.0 EXECUTIVE SUMMARY

Field testing of placer ground on Scroggie Creek, 100 km (62 miles) south of Dawson, Yukon Territory, has resulted in the delineation of between 3,700,000 and 4,500,000 yd^3 of economic gravel.

These gravels which are situated on a high bench above Scroggie Creek, are the remains of rivers which flowed at roughly the same time as the "White Channel" gravels around Dawson.

The overall grade of the Scroggie Creek placer ground under option to Burnt Island Gold Ltd. is between Can$8 to $10/yd^3 (U.S.$337.00) allowing for 910 fineness.

A minimum net profit of $3.00/yd^3 can be achieved if mining utilizing centrifugal recovery is practiced.

No permafrost will exist in the gravels for the first two mining seasons. The reason for this is that previous operations cleared overburden and vegetation from an area measuring 1000 m (3300 ft.) by 600 m (2000 ft.).

Respectfully submitted,

REIMCHEN URLICH GEOLOGICAL ENGINEERING

Ted H. F. Reimchen, P.Geol.
Partner

Cecil M. Urlich, P.Eng.
Partner

C E R T I F I C A T E

I, Ted H. F. Reimchen, of 5571 Cove Cliff Road, North Vancouver, B. C. Canada, do hereby certify that:

I am a graduate of the University of Alberta, graduated with a B.Sc. Degree in Geology and Zoology in 1964, and with a M.Sc. Degree in Geology in 1966.

I have been registered as a professional geologist since 1971 by the Association of Professional Engineers, Geologists, and Geophysicists of Alberta.

I am a member of Canadian Institute of Mining and Metallurgy, Society of Quaternary Geologists, American Society of Photogrammetry, Canadian Remote Sensing Association, and Canada/United States Radar Satellite Study Team.

I have practised as a consulting geologist since 1968, and have been a partner of Reimchen Urlich Geological Engineering since 1982.

I have no interest in any claims or properties owned by Burnt Island Gold Ltd. of Vancouver.

I do not express any guarantee or warranty. The report is based on facts resulting from personal investigations and from investigations completed and reported by staff of Reimchen Urlich Geological Engineering, and commercial testing laboratories.

I hereby consent to the use of the report by the Company in connection with a prospectus, or a statement of material facts relating to the raising of funds for the project.

Dated at the District of North Vancouver, in the Province of British Columbia, this 11th day of October, 1984.

Respectfully submitted,

Ted H. F. Reimchen, P.Geol.

CERTIFICATE

I, Cecil M. Urlich, of 1425 Jefferson Avenue, West Vancouver, B. C., Canada, do hereby certify that:

I am a 1972 graduate of the University of Calgary, Alberta, graduated with a M.Sc. Degree in Geotechnical Engineering, and a 1970 graduate of the University of Auckland, New Zealand, with a B.E. Degree in Engineering Science.

I have been registered as a professional engineer since 1977 by the Association of Professional Engineers of British Columbia, and since 1982 by the Association of Professional Engineers, Geologists, and Geophysicists of Alberta.

I am a member of Canadian Geotechnical Society and American Society of Civil Engineers.

I have been involved in consulting geotechnical engineering since 1972, and have been a partner of Reimchen Urlich Geological Engineering since 1982.

I have no interest in any claims or properties owned by Burnt Island Gold Ltd. of Vancouver.

Conclusions obtained and reported during my work are based on facts resulting from personal investigation and from investigations completed and reported by staff of Reimchen Urlich Geological Engineering and commerical testing laboratories.

Dated at the District of North Vancouver, in the Province of British Columbia, this 11th day of October, 1984.

Respectfully submitted,

Cecil M. Urlich, P.Eng.

General Testing Laboratories
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TABLE A1

CERTIFICATE OF ASSAY
OF CONCENTRATES

No.: 8410-0250 B DATE: Oct. 3/84

We hereby certify that the following are the results of xxxxxxxx: submitted Placer gold

MARKED	GOLD Au (mg)	~~SILVER~~	XXX	XXX	XXX	XXX	XXX	XXX
File No. 115-06								
Weighing of Placer Gold Concentrates:								
SC-1	7.878							
SC-2	329.942							
SC-3A	33.788							

L. Wong
PROVINCIAL ASSAYER

General Testing Laboratories
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SGS

TO:
REIMCHEN URLICH GEOLOGICAL ENGINEERING
4381 Gallant Ave.,
N. Vancouver, B.C.
V7G 1L1

TABLE A2

CERTIFICATE OF ASSAY
OF CONCENTRATES

No.: 8410-0351 B DATE: Oct. 4/84

We hereby certify that the following are the results of assays on: Placer gold weighing

MARKED	GOLD Au (mg)		XXX	X XX	XXX	X XX	XXX	XXX
File No. 115-06								
Free Gold Weighing Concentrates:								
SC - 1B	0.582	Add to SC-1						
SC - 8B	1.056	Add to SC-8						
SC - 10B	1.556	Add to SC-10						
SC - 11	142.915							
SC - 12	15.120							
SC - 2B	102.094	Add to SC-2						
SC - 15B	26.392	Add to SC-15						
SC - 13	179.170							
SC - 14	4.096							
SC - 15	312.474							
SC - 17	0.964							
SC - 18	361.584	Add to SC-1						

L. Wong
PROVINCIAL ASSAYER

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SGS

TO:
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V7G 1L1

TABLE A3
CERTIFICATE OF ASSAY
OF CONCENTRATES

No.: 8410-0250A DATE: Oct. 3/84

We hereby certify that the following are the results of assays on: Coarse Pulps - P.O. No. 115-06

MARKED		GOLD oz/st	~~SILVER~~	GOLD oz/st	GOLD oz/st		AVERAGE GOLD oz/st	TOTAL CONC. g	TOTAL GOLD mg
Concentrates:	Total Weight (grams)								
SC-1	518.2	0.011		0.020	0.003		0.0310	1063.2	1.1289
SC-2	1132.6	0.023		3.300	0.087		1.1367	2434.4	94.7790
SC-3A	554.1	0.093		1.501	0.022		0.5387	1130.0	20.8497
SC-3B	1000.7	0.026		0.010	0.013		0.0163	1964.5	1.0968
SC-4	691.5	0.046		0.040	0.052		0.0460	1385.5	2.1829
SC-5	770.4	0.035		0.036	0.001		0.0240	1447.4	1.1898
SC-6	325.1	0.009		0.011	0.014		0.0113	754.2	0.2919
SC-7	618.9	0.028		0.001	0.001		0.0100	1157.1	0.3963
SC-8	669.0	0.190		0.132	0.008		0.1100	1255.1	4.7287
SC-9	900.3	0.012		0.146	0.074		0.0760	1717.9	4.4718
SC-10	1118.9	0.064		0.137	0.007		0.0693	1986.1	4.7142

L. Wong
PROVINCIAL ASSAYER

General Testing Laboratories
A Division of SGS Supervision Services Inc.
1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W2
PHONE (604) 254-1647 TELEX 04-507514 CABLE: SUPERVISE

SGS

TO:
REIMCHEN URLICH GEOLOGICAL
ENGINEERING
4381 Gallant Ave.,
N. Vancouver, B.C.
V7G 1L1

TABLE A4

CERTIFICATE OF ASSAY
OF CONCENTRATES

No.: 8410-0351 A DATE: Oct. 4/84

We hereby certify that the following are the results of assays on: Coarse Pulps

MARKED		GOLD oz/st	~~SILVER~~	GOLD oz/st	GOLD oz/st		AVERAGE GOLD oz/ton	TOTAL CONC. g	TOTAL GOLD mg
File No. 115-06									
Concen-trates:	Total Weight (grams)								
SC - 11	296.3	0.053		0.332	0.112		0.1657	618.7	3.5114
SC - 12	748.1	0.029		0.013	0.025		0.0223	1583.7	1.2096
SC - 13	305.7	2.554		0.784	1.156		1.4980	609.8	31.2877
SC - 14	369.7	0.003		0.001	0.028		0.0107	692.7	0.2539
SC - 15	789.3	0.086		0.028	0.067		0.0603	1612.9	3.3312
SC - 16	93.3	0.367		0.613	0.107		0.3623	93.3	1.1578
SC - 17	249.5	0.103		0.034	0.041		0.0593	249.8	0.5074
SC - 18	1032.6	1.673		0.131	0.147		0.6503	1033.0	23.0085
Add to SC-1									

L. Wong
PROVINCIAL ASSAYER

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1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W2
PHONE (604) 254-1647 TELEX 04-507514 CABLE: SUPERVISE

SGS

TO:
REIMCHEN URLICH GEOLOGICAL
ENGINEERING
4381 Gallant Ave.
North Vancouver, B.C.
V7G 1L1

TABLE A5

CERTIFICATE OF ASSAY
OF CONCENTRATES

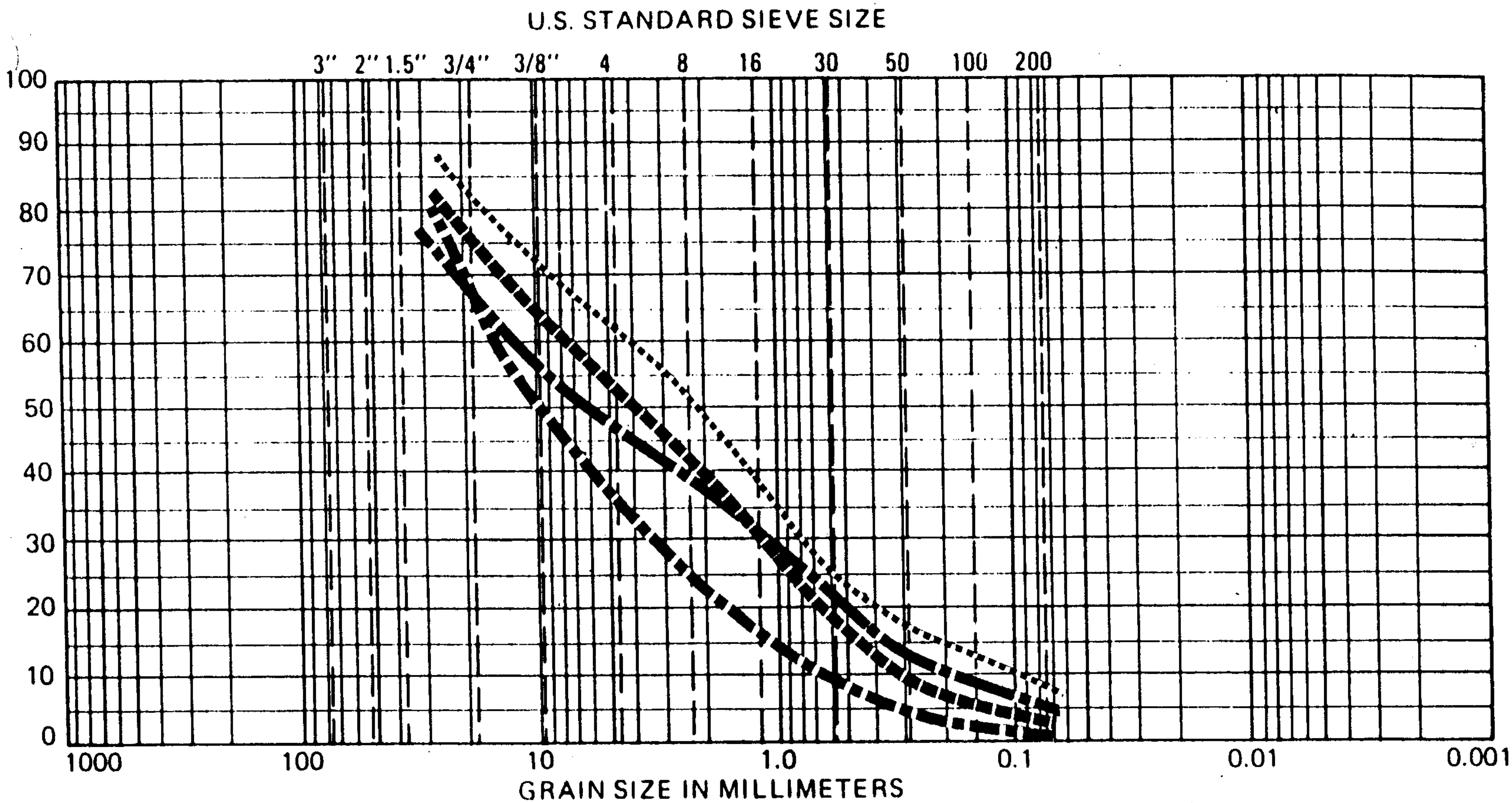
No.: 8410-0453 DATE: Oct. 10/84

We hereby certify that the following are the results of assays on: Coarse Pulps

MARKED	XXXXXXXXXX		Platinum	Chromium oxide	xxx	xx	xxx	xxx
			oz/st	Cr_2O_3(%)				
File 115-06								
Concentrates:								
SC - 2			0.001	1.25				
SC - 11			0.034	1.46				
SC - 12			0.002	1.33				

NOTE: REJECTS RETAINED ONE MONTH. PULPS RETAINED THREE MONTHS. ON REQUEST PULPS AND REJECTS WILL BE STORE FOR A MAXIMUM OF ONE YEAR.

L. Wong
PROVINCIAL ASSAYER



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

DEPTH		CLASSIFICATION	NAT. W C	LL	PL	PI	-
SC-1	GW	Gravel and sand	5.09				
SC-2	GW	Gravel and sand	5.13				
SC-3A	GW	Gravel and sand	2.99				
SC-3B	GW	Gravel and sand, trace silt	6.64				

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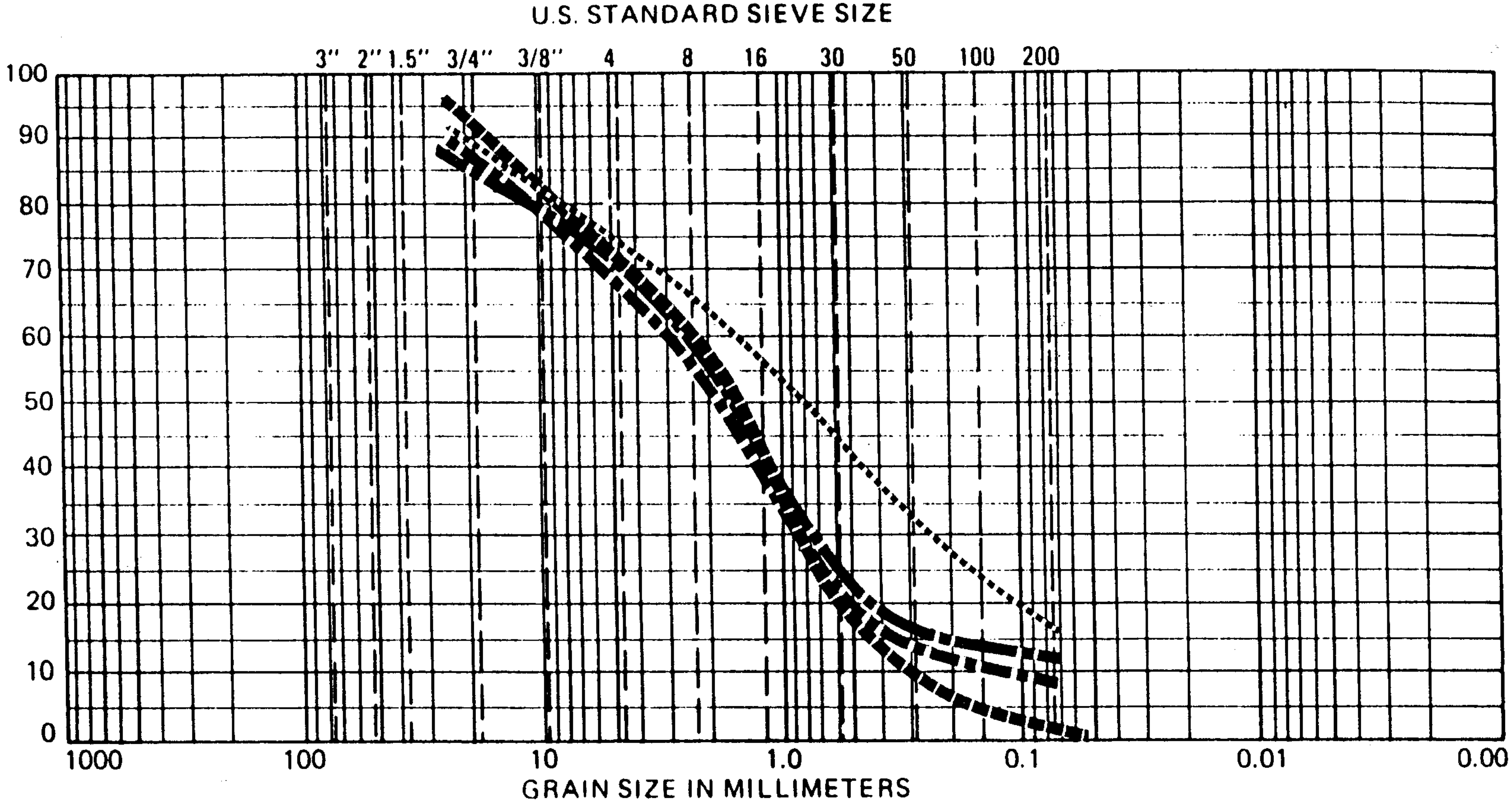
GRADATION CURVES

SC-1 to SC-3B

TO ACCOMPANY REPORT BY

REIMCHEN URLICH GEOLOGICAL ENGINEERING

SCALE	DATE Oct. 84
FILE 115-06	FIGURE A1
DRAWN CU	CHKD CU



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

DEPTH	CLASSIFICATION		NAT. W C	LL	PL	PI	-
SC-4	GW	Gravel and sand, trace silt	8.91				
SC-5	GW	Gravel and sand, trace silt	7.31				
SC-6	GW	Gravel and sand	1.88				
SC-7	GW	Gravel and sand, trace silt	8.83				

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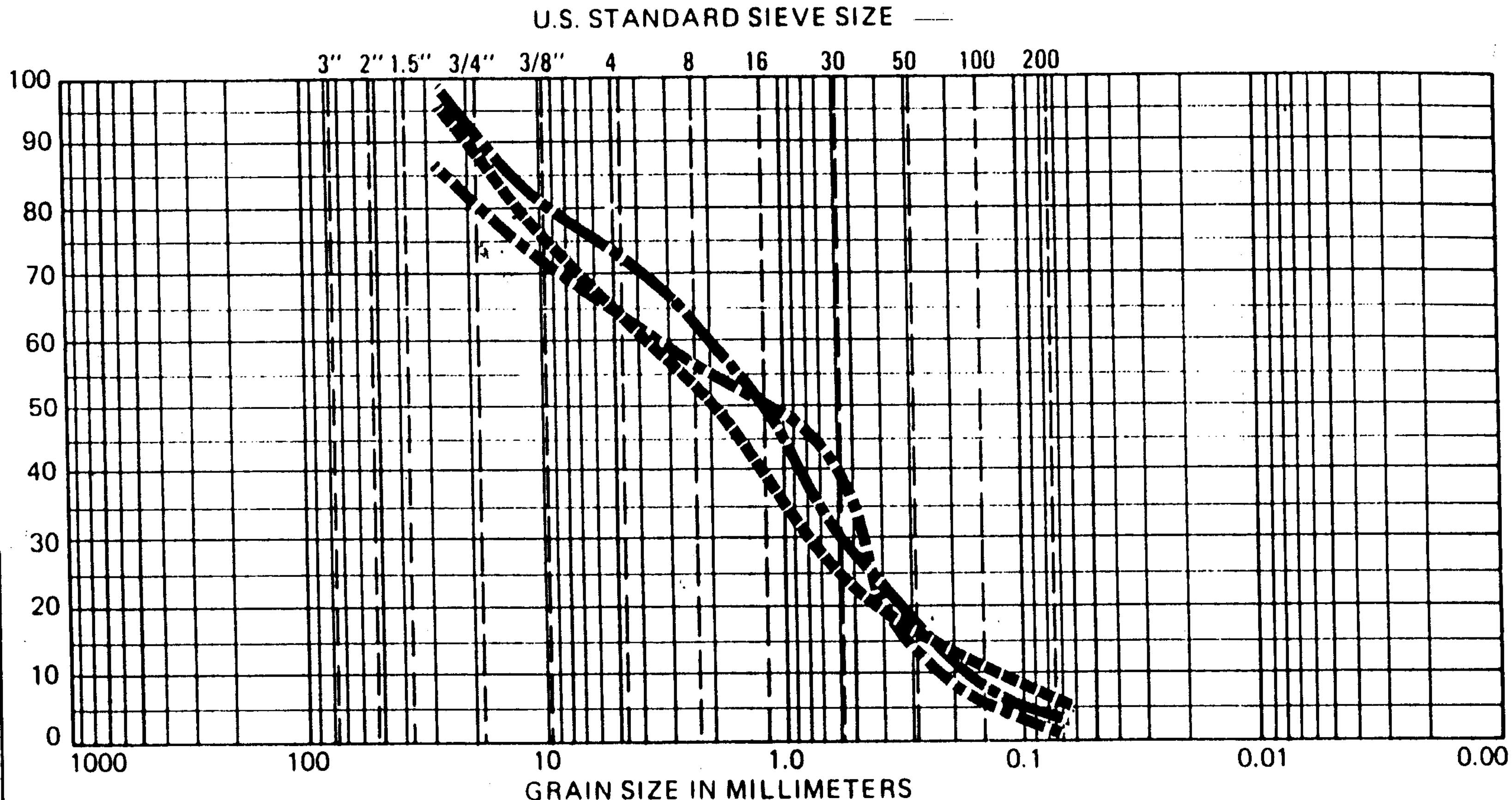
GRADATION CURVES
SC-4 to SC-7

TO ACCOMPANY REPORT BY
REIMCHEN URLICH GEOLOGICAL ENGINEERING

SCALE	DATE Oct.84
FILE 115-06	FIGURE A2
DRAWN CU	CHKD CU



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

DEPTH		CLASSIFICATION	NAT. W C	LL	PL	PI	-
SC- 8	GW	Gravel and sand	3.62				
SC- 9	GW	Gravel and sand	6.62				
SC-10	GW	Gravel and sand	4.29				

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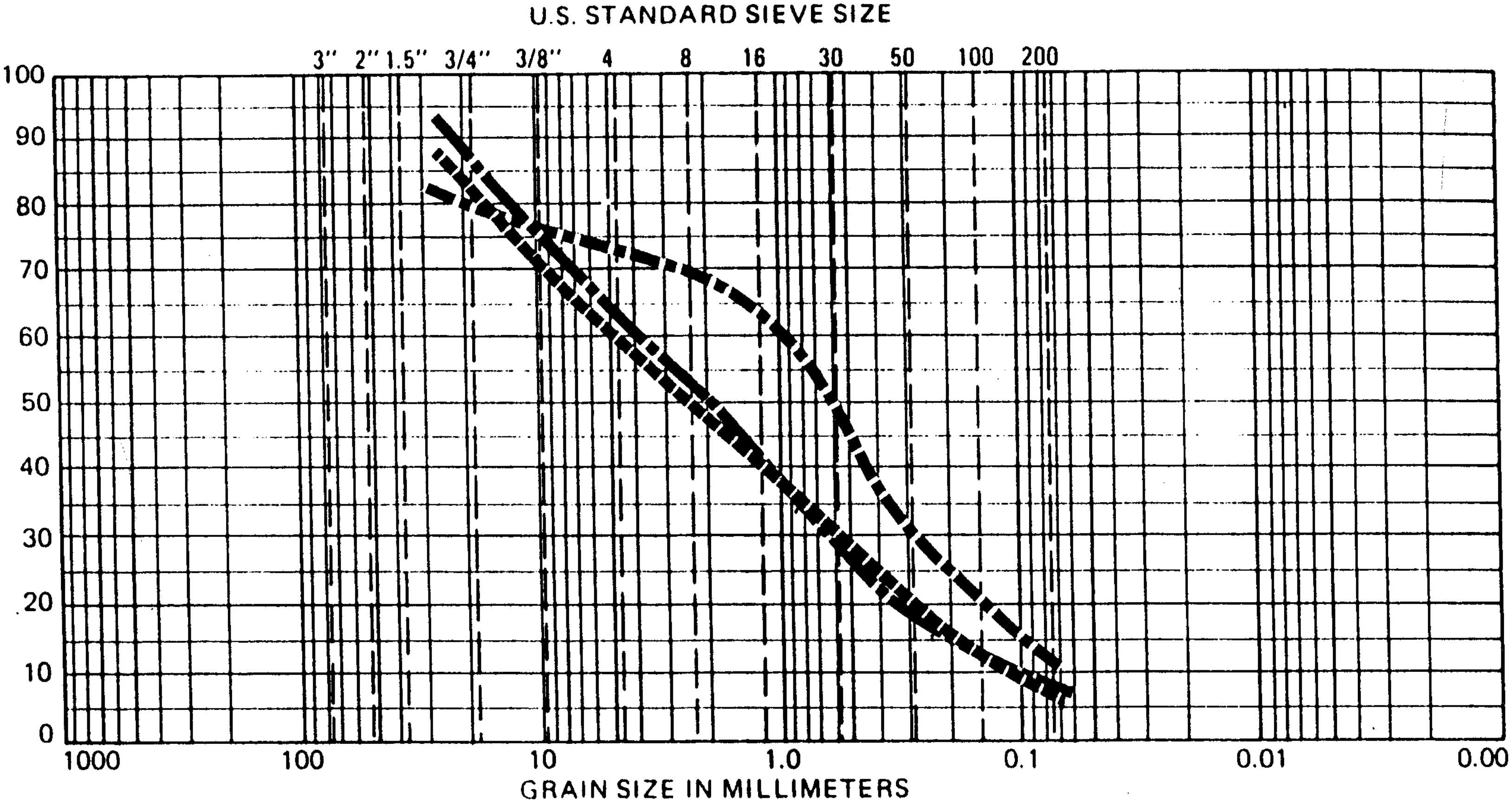
GRADATION CURVES
SC-8 to SC-10

TO ACCOMPANY REPORT BY
REIMCHEN URLICH
GEOLOGICAL
ENGINEERING

SCALE		DATE	Oct. 84
FILE	115-06	FIGURE	A3
DRAWN	CU	CHKD	CU



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

DEPTH	CLASSIFICATION		NAT. W C	LL	PL	PI
SC-11	GW	Gravel and sand, trace silt	11.25			
SC-12	GW	Gravel and sand, trace silt	4.78			
SC-13	GW	Gravel and sand, trace silt	8.87			

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GRADATION CURVES

SC-11 to SC-13

TO ACCOMPANY REPORT BY

REIMCHIEN URLICH GEOLOGICAL ENGINEERING

SCALE	DATE Oct.84
FILE 115-06	FIGURE A4
DRAWN CU	CHKD CU

REIMCHEN URLICH GEOLOGICAL ENGINEERING
4381 Gallant Avenue
North Vancouver
Britisn Columbia
Canada
V7G 1L1

Telephone: (604)929-2377

Date: October 28, 1984
Our File: 115-06
Your File: Scroggie Creek
Project: Evaluation
Purchase Order: Verbal
Invoice No.: 04

Invoice for Professional Services

Payable on Receipt

To: 4955 Yukon Ltd.
202 - 205 A Main Street,
Whitehorse, Y.T.

Attn. Larry Bratvold

For professional services rendered during September and October 1984 at Scroggie Creek. Services include geological mapping, feild sampling, spinning barrel processing, assay lab work, frieght of concentrators to Vancouver, report compiletion, and mine planing.

Total Amount Owing --------------------- $30,651.70

RECEIVED
NOV [illegible] 1984
MINING RECORDER
DAWSON, Y.T.
I.A. & N.D.