

RESULTS OF PROSPECTING
LANCER 1-8 CLAIMS

CLAIM SHEET 105-F-08
61°29'N 132°11'W

JAMES S. DODGE, P.ENG.
18-30 JULY 1991



LANCER CLAIMS

No. 1 Posts for Lancer 7/8 and No. 2 Posts for Lancer 5/6

Posts are standing on 3-meter wide
rare earths+yttrium+zirconium vein

Rusty knob in mid-distance
is intrusive syenite plug

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ABSTRACT

Under the 1991 Yukon Mining Incentives Program, James S. Dodge, Yukon Professional Engineer, undertook a reassessment of the previously known rare earth elements (REE) occurrences at the head of the Ketz River, southcentral Yukon on NTS Map Sheet 105-F-08.

During May to September, the 24 Lancer claims were staked covering an area of peralkaline intrusive rocks and meta-volcanics together with surrounding older slates, black phyllites and shale.

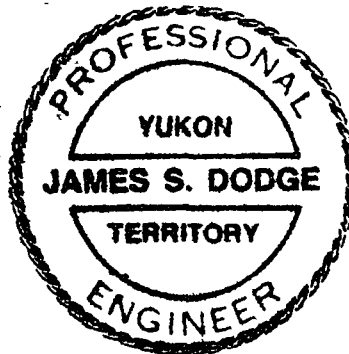
Prospecting and radiometric scanning of accessible sites in the craggy cirque terrain revealed that the several outcropping zones of REE mineralization, previously considered to be separate skarn-hosted entities, were undoubtedly the exposed portions of a single through-going vein. Several lines of field relations support this conclusion, as do petrographic descriptions of mineralized rocks and also the similarities shown in analyses of a few familiarization samples.

Four samples of representative vein material were analyzed for 14 REE elements plus uranium-thorium, yttrium, and zirconium. The results were highlighted by elevated values reported for yttrium, zirconium, cerium, lanthanum, and neodymium; collectively, a rather uncommon association of elements in the peralkaline environment.

A fifth sample from a talus boulder near the syenite plug yielded unexpectedly high values in both yttrium and zirconium, while the radiometric response in the field was not proportionately higher.

Thus, emphasis must be placed on detailed geological mapping, binocular microscopy in the base camp, rock geochemical sampling and analysis for yttrium and zirconium as pathfinder elements for REE; all as part of a planned follow-up Target Evaluation Program in 1992..

James S. Dodge
James S. Dodge, P.Eng.
Whitehorse, Yukon
01 October, 1991



INTRODUCTION

James Dodge chose the search for rare earth elements (REE) in the Yukon as a major emphasis for prospecting under the 1991 Yukon Mining Incentives Program. This decision followed a detailed library search of the geologic literature (winter 1990-91) on peralkalic rock hosts of rare earth deposits and a useful field inspection of the bastnaesite REE mine at Mountain Pass, California.

Thereupon, Dodge's review of the 1980 assessment report on the former Nokluit claims, prepared under the supervision of A. R. Archer, suggested that a careful field assessment was warranted on the basis of the level of REE values obtained at several sites and because of the current high degree of interest in, and anticipated growth for, rare earth elements; especially yttrium.

Previous work had identified sites of anomalously high radioactivity with associated promising REE values, albeit in relatively small, isolated bedrock and talus sources.

Noting that the area was open for staking and, moreover, that a road for 4x4 vehicles would provide limited but important access to the property once the area was free of late-melting snow, the staking of the first eight Lancer claims was undertaken on 30 May, 1991.

Ground access to the claims during the period 18-30 July provided the opportunity to prospect and reevaluate several of the sites previously reported to contain REE concentrations.

PROPERTY AND LOCATION

The core group of 8 Lancer claims are recorded in the Watson Lake Mining District recorder's office as follows:

<u>Name</u>	<u>Grant Numbers</u>	<u>Date of Record</u>
LANCER 1-8	YB33962-YB33969	05 June, 1991

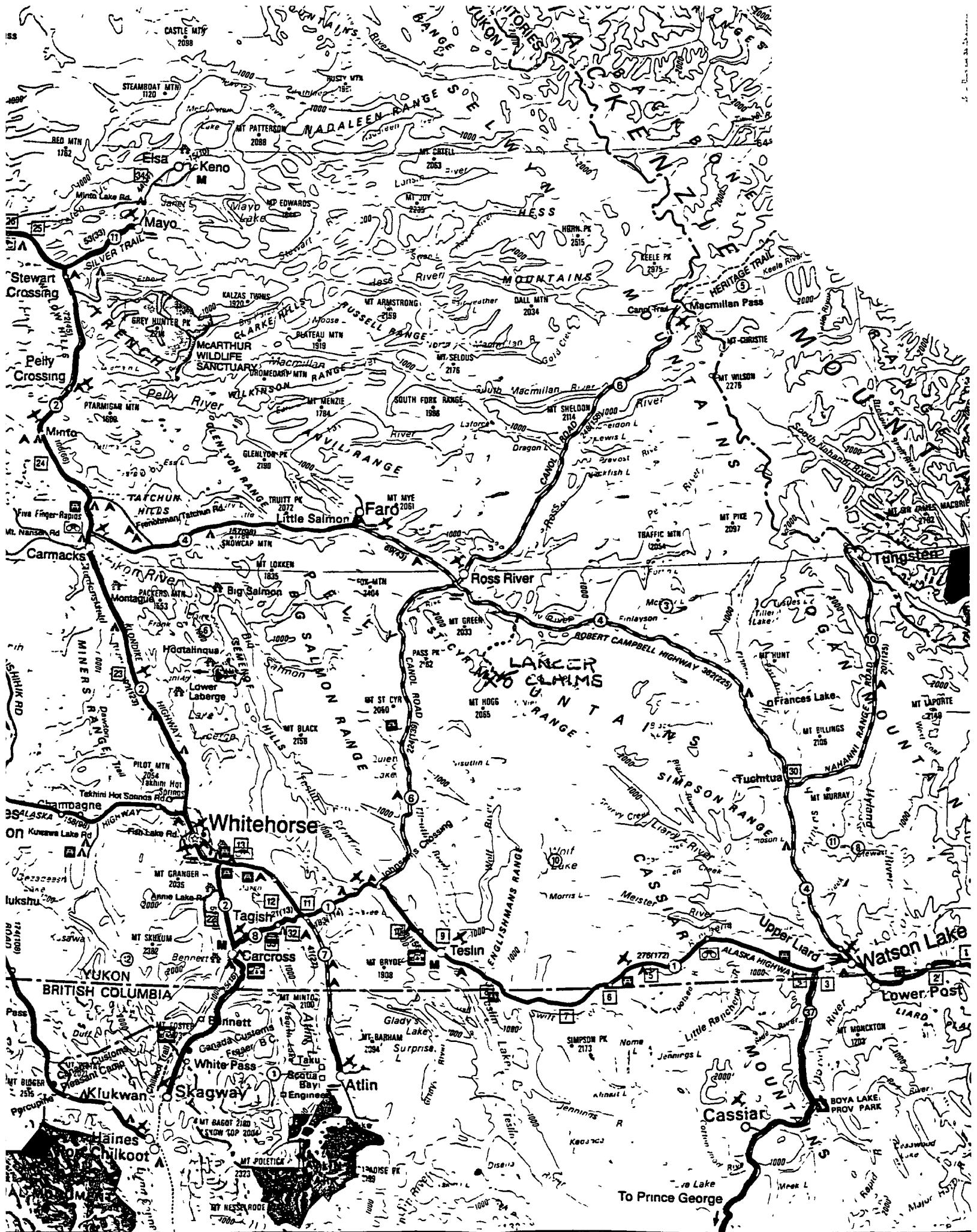
An additional 16 contiguous Lancer claims were staked in mid-September, 1991 and have been filed for recording.

Ownership of all the claims is held by James S. Dodge of Whitehorse, Yukon.

The claims are situated at approximately 61°29' north latitude and 132°11' west longitude on NTS Map Sheets 105-F-08 and 105-F-09 near the headwaters of the Ketzka River, 60 km south of the settlement of Ross River in the Pelly Mountains of southcentral Yukon.

Altitudes on the claims range from 1500 meters along the Ketzka River to 2050 meters along the headwall of a composite cirque.

A 10 km 4x4 vehicle road connects the eastern boundary of the claims to the all-weather Ketzka Mine road at a point 30.5 km southwest of the Campbell Highway.



6072 AL
CAMP
YA46245 5
Y94453 Y94454
YA35525 YA35526



105-F-09

105-F-08



LANCER
9-24

James A. White

1700



PHOTO 1

Overview of Lancer claims looking 240° A into the headwaters valley of the Ketzka River which flows to the lower right. Dark reddish brown knob in right center is the intrusive syenite plug.

Left foreground cliff and partially concealed ridge leading to snow-patchy peak comprise skarn and hornfels as part of the thermal metamorphic aureole generated in a southeasterly direction from that part of the syenite intrusion now exhumed by erosion.

LANCER CLAIMS
RESULTS OF INVESTIGATIONS

Activity under this prospecting phase of the 1991 Yukon Mining Incentives Program entailed a (1) field review of data provided in the 1980 Assessment Report #090577 on the former Nokluit claims prepared under the supervision of A R Archer and (2) thereupon, reassessment of these data following prospecting ground radiometric scanning laboratory analyses, petrological descriptions, and the determination of source-significance of numerous talus trains in the main cirque

Geologic Terrane Reconnaissance

Prospecting traverses crisscrossed the Lancer group of 8 claims and confirmed the presence of a bimodal alkaline syenite intrusive plug with a southeasterly trending thermal metamorphic aureol expanding outward from skarn then to hornfels. This aureol has been developed prominently in both high level vesicular trachyte and in older phyllite and black shale.

The younger, layered tuffaceous syenite units commonly exhibit only weakly developed schistosity. Areas of dolomitic rocks adjacent to the west/northwest periphery of the syenite plug will require further study to determine their field relations.

Numerous narrow, parallel, steeply dipping fissure-filling siliceous pyritic zones lace the aureol in 100°-120° trends.

Confirmatory Radiometric Scanning

Predicated on earlier reports of radiometric anomalies associated with REE concentrations in the cirque, a hand held Scintrex GIS integrating gamma ray spectrometer was used to assist in relocating sites of anomalous uranium/thorium concentrations. Field results which indicated that values for thorium were greater than those for uranium were later confirmed by analytical results.

Only very low level total radioactive response was obtained from talus boulders below the syenite plug in which localized but high concentrations of macroscopic brown zircon were evident.

Prospecting Vein Outcrops (Photo 2)

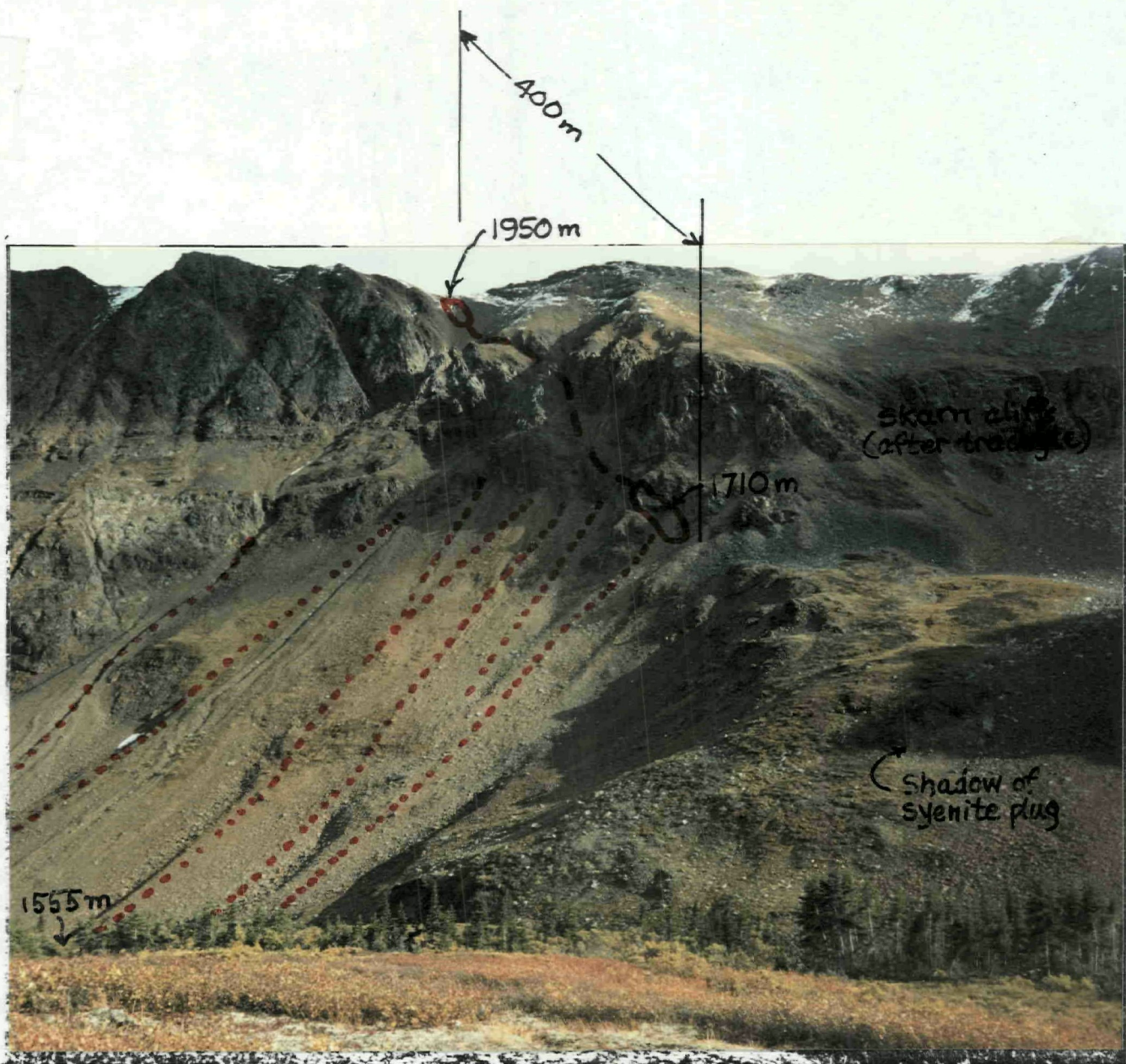
Prospecting along the headwall ridge of the main cirque relocated the 3-meter wide zone of anomalous radioactivity described as a dike in the 1980 report (Photo 3). The fine grained groundmass appeared to be unmetamorphosed. The hematitic feldspar of syenitic appearance, together with the fabric of closely spaced quartz and carbonate stringers and patches, suggested a late stage hydrothermal, possibly metasomatic, event rather than a true dike emplacement.

The several narrow, siliceous pyritic fissure filling veins along the ridge exhibited generally 120° A trends which matched closely that of the reported REE-bearing radioactive zone. Thus, further evidence was provided to indicate that the radioactive zone was most likely a vein emplaced in a similar fissure zone.

Solo prospecting northwesterly following the outcrop of the vein from the ridge was restricted by the very steep slopes leading down into the cirque. Accordingly, attention was redirected to the examination of several radioactive REE-bearing bedrock areas reported to outcrop at the head of talus slides some 240 meters lower altitude and an estimated 400 meters slope distance to the northwest.

Location of the lower area was confirmed by the discovery of two adjacent vein outcrops (Photo 4) with lithology quite similar to the vein exposed at the ridge outcrop. Moreover, the 120° A strike and near-vertical inclination in both of these lower, 8-meter wide, in-line outcrops suggested a genetic commonality with outcrops of the same vein as on the ridge.

Skarn is confined to the wall rocks at all vein outcrops. This implies that the REE-bearing vein material is younger than the thermal metamorphic event and was emplaced from a magmatically differentiated solution arising from an underlying syenite intrusive which had probably overall cooled significantly by that time.



Looking south into main cirque covered by LANCER 5/6/7/8 claims. Solid red lines outline ridge (1950m altitude) and cliff (1710m) outcrop areas examined in 1991.

Dotted red lines indicate trend of distinct talus trains containing boulders of REE-bearing, radioactive vein material lithologically similar to that in vein outcrops examined in 1991.

Dashed red line predicts trend of bedrock vein on-line between ridge and lower outcrop sites as sources of vein material in talus.



PHOTO 3

Outcrop of 3-meter wide REE-bearing vein (1940m altitude) situated 50m down south flank of ridge above cirque.

Note white streaks, veinlets and patches of late metasomatic quartz and carbonate minerals. Site of sample #420727.

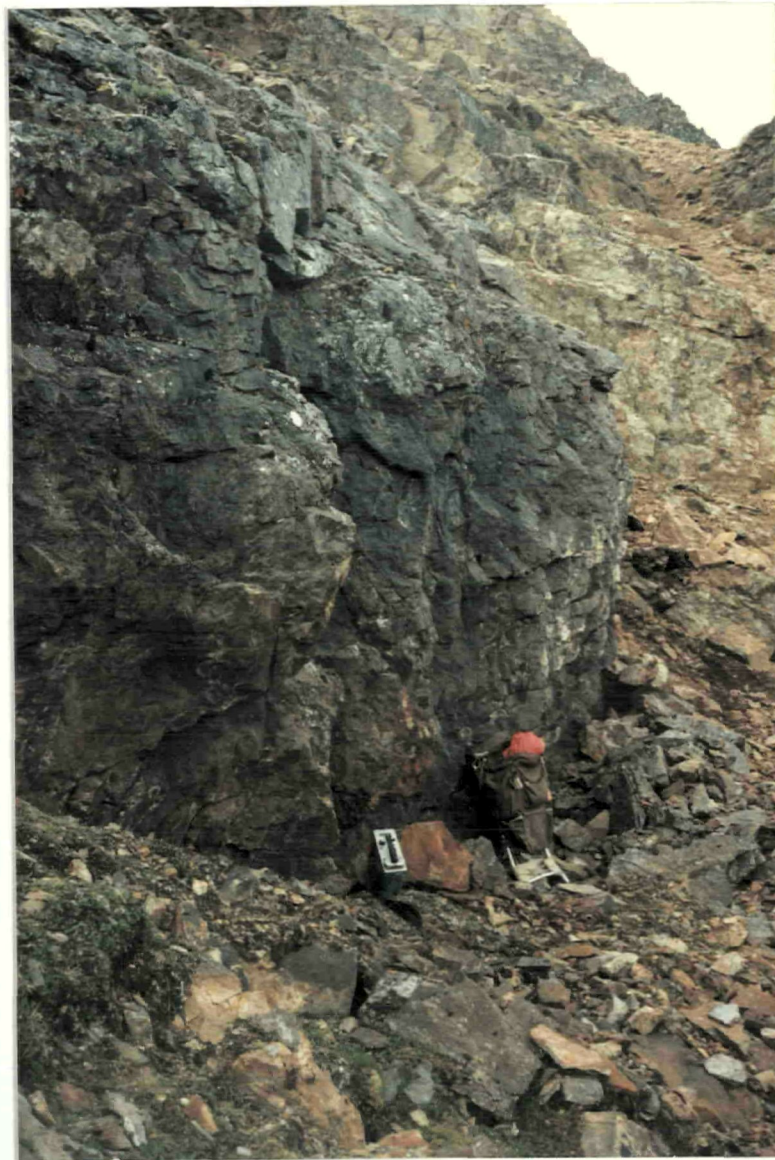


PHOTO 4

Looking 210° A across one of several lower cirque outcrops of 8-meter wide REE-bearing vein (1710m altitude). Site of sample #420725. Cream colored terrane behind vein is skarnized trachyte.

Interpretation of Talus Components

As seen in Photo 2, a group of talus trains, with a combined width of over 150 meters, descend from cliffs and rock chutes, therewith provide a sampling of the various lithologic units within the cirque. All of the trains contain varying concentrations of phyllitic hornfels, trachytic hornfels and skarn, siliceous pyritic veins, and radioactive REE-bearing vein boulders (Photos 5 and 6)

REE-bearing vein material in the various talus trains displays remarkably similar lithology with the exception that fluorite is more commonly seen in the two westernmost talus trains. Thus, the higher fluorite content noted in the lower outcrop sites is clearly reflected in the talus

The ubiquitous REE-bearing vein presence in all talus appears significant with regard to relating this to the location of probable bedrock sites as sources of the talus. On this evidence it would seem likely that the vein extends, more or less continuously, from the ridge outcrop down through the craggy terrain of the cirque to the lower outcrops.

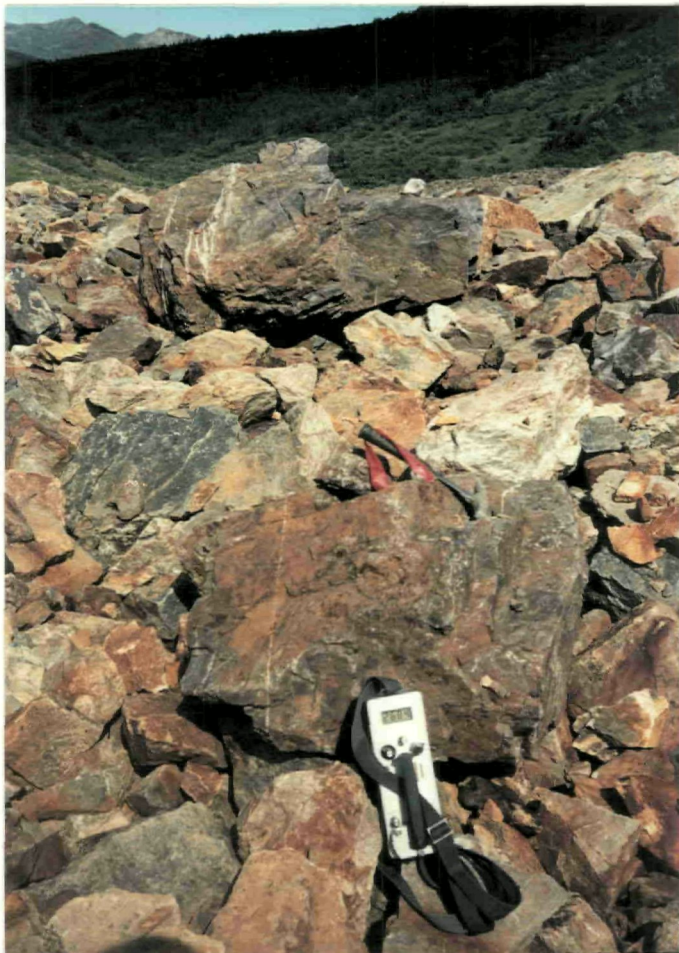


PHOTO 5

Large (1m^3) boulders in talus train below cirque outcrops of REE-bearing vein.

The dun color and narrow white stringers of quartz and ankerite are characteristic.

Scintillometer is reading 2684 counts per second of total gamma radiation.



PHOTO 6

Dark purple fluorite stringers in REE-bearing vein material (upper right) in westernmost talus train.

Off-white boulder next to pack is typical skarnized trachyte.

Familiarization Sampling

Four rock samples were selected for analysis by Chemex Labs in Toronto to provide information which could confirm the reported presence of interesting values in rare earths and associated elements in vein material. Results were provided on Certificate of Analysis #A911456. One representative chip sample was taken from each of the ridge (#420727) and lower bedrock (#420725) outcrops also one from each of the two adjacent talus trains (#420726 and #420728) as grab chips from approximately 8-10 boulders.

Analyses were carried out for 14 REE elements, thorium-uranium, yttrium, and zirconium. These revealed important values in yttrium and zirconium as well as anomalously high values in lanthanum, cerium and neodymium. Thorium values consistently exceeded those of uranium.

A fifth sample was taken from a talus boulder beneath the north-facing buttress of the syenite plug. Visible in the fine grained melasyenite specimen was a 5cm-wide band of compact, medium grained, mostly euhedral brown zircon. Although the very high (27.8% Zr) zirconium content was anticipated, the high (#420730) value for yttrium was unexpected.

Petrographic Descriptions

Four rock samples were submitted for petrographic descriptions to Vancouver Petrographics in Fort Langely, British Columbia (Appendix). Samples 1 to 3 were of vein material and the fourth was of the zircon-rich zone in the syenite boulder.

From the descriptions it is concluded that the early matrix of the vein material was principally high-sodic feldspar which was metasomatized upon the introduction of late stage quartz and carbonate bearing hydrothermal solutions. No discrete yttrium, zirconium or REE minerals were identified, although hematite particles could now contain these and the radioactive elements.

Based on the relationship of high yttrium and lower REE values in the syenite boulder sample, a 2-stage genesis is proposed for the main vein. That the zirconium-rich syenitic vein filling was followed by metasomatizing radioactive hydrothermal solutions rich in REE. Metasomatism may also have produced metamict phase of zircon by altering the original zircon which could have served as a carrier for yttrium in the first stage of vein genesis.

CONCLUSIONS

Prospecting reassessment of the Lancer property during 1991 has shown that

- 1 Rare earth elements as well as yttrium and zirconium, occur in anomalously high percentages in two widely separated vein-type outcrops which are lithologically and structurally quite similar
- 2 The occurrence of concentrations of all of these elements in a single geological setting is uncommon
- 3 The high incidence of vein material occurring as boulders in all of the talus trains, sourced from that section of the main cirque lying between the two vein-type outcrop areas, most likely points to the existence of a through-going vein between these outcrops
- 4 Not all yttrium and zirconium concentrations outside the main vein necessarily have associated anomalously high radiometric signatures
- 5 Consequently, future reconnaissance rock geochemical sampling of the Lancer claims should focus on yttrium and zirconium not only as economic targets in themselves but also as the pathfinder elements for REE concentrations. Laboratory analyses for just these two elements are inexpensive and have rapid laboratory turnaround time
- 6 Verification of the suspected bedrock vein occurrences in the less accessible zones of the cirque will confirm that the vein is the prime initial target for sub-surface exploration
- 7 The Lancer property requires detailed geological mapping and rock geochemical sampling, along with radiometric scanning, to establish all the potential targets for concerted sub-surface exploration for concentrations of rare earth elements plus yttrium and zirconium

RECOMMENDATIONS

The recommended program for evaluation of the Lancer claim group during a 4-weeks period in 1992 includes

- 1 Establishment of a series of control survey stations in the cirque from a base station on the mountain north of the Ketzá River Electronic distance measuring survey equipment will be essential
- 2 Ground reconnaissance of the craggy cirque terrain with safety lines to search for vein outcrops between the ridge and top of the talus trains
- 3 Close spaced sampling of all vein outcrops
- 4 Detailed geological mapping radiometric scanning, and rock geochemical sampling for yttrium and zirconium over select areas of the claim group
- 5 As a contingent supplement, core drill at least one geologic continuity hole into the vein



Chemex Labs Ltd.

Analytical Chemists Geochemists Registered Assayers
 212 Brooksbank Ave North Vancouver
 British Columbia Canada V7J 2C1
 PHONE 604 984-0221

To DODGE JAMES S
 14 MACDONALD RD
 WHITEHORSE YUKON
 Y1A 4L2

Page Number 1
 Total Pages 1
 Certificate Date 05 SEP 91
 Invoice No I9119456
 P O Number

Project
 Comments ATTN JAMES DODGE

CERTIFICATE OF ANALYSIS A9119456

SAMPLE DESCRIPTION	PREP CODE		Ce	NAA Dy	NAA Er	NAA Eu	NAA Gd	NAA Ho	NAA La	NAA Lu	NAA Nd	NAA Pr	NAA Sm	NAA Tb	NAA Th	NAA Tm	NAA U	NAA Yb	NAA Y	Zr							
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm							
420725H	205	294	6506	93	40	23	50	350	18	5057	7	60	1285	675	230	2	17	50	981	2	44	140	0	48	50	1100	6990
420726H	205	294	3914	75	40	14	50	< 50	13	2376	5	70	1085	410	208	5	16	10	1403	5	8	83	0	39	70	780	3350
420727H	205	294	5832	139	120	18	50	300	20	3844	11	30	1405	670	286	7	20	60	2735		4	214	0	56	50	1420	11200
420728H	205	294	5650	114	40	19	50	200	24	2980	8	50	1455	470	257	0	21	60	1242	5	13	144	0	58	10	1120	7620
420730H	205	294	2614	238	340	38	50	250	56	1279	0	66	50	220	157	10	33	80	2199		40	320	0	370	7	2200	278000

Cerium

Lanthanum

Neodymium

Thorium

Uranium

Yttrium

Zirconium

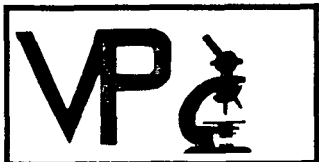
Alicia Alexander
 CERTIFICATION



PHOTO 7

Lancer claims 1-24 cover both snow covered mountains in mid-distance. Headwaters of Ketzá River lies between them.

Access road for 4x4 vehicles leads to base of the mountain on the left.



Vancouver Petrographics Ltd.

JAMES VINNELL Manager
JOHN G PAYNE Ph D Geologist
CRAIG LEITCH Ph D Geologist
JEFF HARRIS Ph D Geologist
KEN E NORTHCOTE Ph D Geologist

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Report for James Dodge,
14 MacDonald Road,
WHITEHORSE,
Yukon, Y1A 4L2

Job 217

September 19th, 1991

SAMPLES

4 samples of possible Zr and REE-bearing rock for sectioning and petrographic examination

The samples are numbered Dodge 1-91 through 4-91

SUMMARY

Sample 1 is a mafic-free syenite of intrusive aspect, composed essentially of fresh K-feldspar. It is intergranularly and uniformly pervaded by carbonate and quartz.

Sample 2 is a silica-carbonate rock of metasomatic origin, apparently representing the wholesale alteration of an intrusive protolith - possibly an albitite dyke.

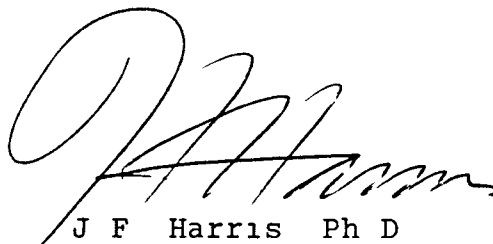
Sample 3 is a sodic porphyry of specialized composition, consisting of a groundmass of fresh equigranular albite and abundant phenocrysts of aegiritic pyroxene. It is cut by uniform alteration zones rich in carbonate, fluorite, phlogopite and hematite.

Sample 4 is another specialized rock, probably representing a pegmatitic differentiate of the syenite complex. It is composed predominantly of zircon as individual subhedral grains abundantly scattered through a matrix of albite with minor intergrown quartz and carbonate. The zircon shows partial alteration to a dusty sub-opaque form (cyrtolite).

The source of rare earth elements in these samples is not immediately apparent from the petrographic study (except for the zircon, which is almost certainly a carrier in Sample 4). Rare earths may be concentrated in diffuse ferruginous products or hematite, and in possible traces of bastnaesite associated with carbonate.

More or less extensive checks by scanning electron microprobe analysis would be required to pursue this question

Individual petrographic descriptions are attached

A handwritten signature in black ink, appearing to read 'J F Harris', written in a cursive style.

J F Harris Ph D

((604) 929-5867)

Estimated mode

K-feldspar	60
Plagioclase	10
Rutile	trace
Quartz	10
Carbonate	16
Limonite	4

This sample is a syenite, composed predominantly of fresh, perthitic K-feldspar

It shows a wide grain size range, from microgranular material on the scale 0.02 - 0.1mm, up to coarse, blocky aggregates of 1 - 2mm. Grain shapes are anhedral, and grain boundaries are commonly crenulate.

Minor plagioclase occurs intimately intergrown with the perthite.

The rock appears to be devoid of mafic silicates. Sparse traces of rutile and/or Fe-Ti oxides occur as fine-grained disseminations.

Carbonate and quartz are major accessories, probably representing late-stage deuteric or hydrothermal introductions. Carbonate constitutes a pervasive phase of intergranular pockets and networks throughout the feldspar aggregate, locally expanding to sizeable, ragged patches which show included remnants of feldspar, and apparently involve partial replacement of the syenite matrix.

The sectioned portion includes a pair of prominent veinlets (2 - 4mm thick) of sparry carbonate and clumpily intergrown, coarse quartz. The quartz extends laterally into the syenite as irregular, pockety networks. The rock is also cut by a few discrete, sub-parallel, hairline veinlets of quartz and carbonate.

The carbonate is unreactive to dilute HCl, and locally shows flecks and cleavage-controlled networks of limonitic staining - suggesting that it is a ferruginous variety (ankerite or siderite). Limonite impregnation is particularly strong in the two principal carbonate veinlets, which appear dark brown in the off-cut.

The dispersed carbonate often includes tiny euhedra and/or spheroids of a darker carbonate in a predominant, colourless lower relief host, suggesting that two (or more) varieties of carbonate may be present. There is also a possibility that this material could be bastnaesite.

Estimated mode

Quartz	53
Carbonate	36
Sericite	1
Plagioclase	8
Limonite	2
Pyrite	trace

This is a compact, structureless rock which appears in thin section, to represent a product of intense metasomatic alteration (silicification/carbonatization) of an original intrusive rock

It now consists essentially of a vari-granular intergrowth of quartz and carbonate

Quartz is the dominant component forming an aggregate of strained anhedral grains, in the size range 0.1 - 2.0 mm. Carbonate is developed rather evenly throughout this matrix as individual, tiny euhedra and aggregates thereof, forming irregular pockets and semi-continuous networks, intergranular to, and within, the quartz grains

Tiny flecks of sericite are a minor associate of the carbonate

The rock exhibits a rather well-developed relict texture of randomly oriented, slender laths. These clearly originated as plagioclase and in part survive as such. Others are partially and wholly pseudomorphed by carbonate, or are recognizable as ghosts, delineated by dusty limonite in the quartz matrix

The remaining constituents are sub-opaque/limonitic material, as diffuse dust and small granules, mainly associated with the carbonate and sparsely disseminated pyrite as individual pyritohedral grains 50 - 200 microns in size

This rock probably represents an advanced stage of the quartz-carbonate alteration process exemplified in Sample 1

Estimated mode

Albite	53
K-feldspar	trace
Aegirine	28
Phlogopite	2
Carbonate	7
Fluorite	4
Quartz	1
Hematite	5

This is a texturally heterogenous rock (see etched off-cut), showing streaky, crypto-fragmental variations in grain size and mineral proportions

In thin section the dominant assemblage is found to consist of a matrix of varigranular, stumpy subhedral-anhedral plagioclase (grain size 0.03 - 0.8mm), studded with abundant, elongate, prismatic grains of euhedral pyroxene. These range from 0.1 - 2.0mm in length

The plagioclase is strikingly fresh, and sharply twinned. It shows twinning extinction angles and refractive index indicative of albite.

The pyroxene is also mainly fresh. It is pleochroic from green to yellow-green and has the almost straight extinction and elongate habit characteristic of aegirine. It commonly shows skeletal/fragmented form, with the albite matrix intergrown as inclusions, cleavage lamellae, and apparent fracture fillings.

Locally the pyroxene appears to be partially replaced by carbonate - typically showing limonite staining and apparently a ferruginous variety, as in the other rocks of the suite.

The sectioned area includes linear zones of alteration, probably related to shearing. These contain high concentrations of carbonate, and include oriented flakes of phlogopite - possibly an alteration of the pyroxene.

A prominent accessory in these zones (intimately intergrown, as irregular pockets and networks, with the carbonate and remnant albite) is fluorite showing typical colourless - purple zonation. Fluorite is also occasionally seen in the fresh albite-aegirine assemblage, but is rare.

The remaining accessory is hematite, of fine-grained acicular form, occurring as sporadic, irregular clumps and meshwork clusters. This is notably concentrated in the carbonate-phlogopite-fluorite alteration zones (partially pseudomorphing original pyroxene?) and is also abundant in an isolated patch near the centre of the sectioned area. Here it forms a meshwork of flakes within a matrix.

Sample Dodge 91-3 cont

of albite Aegirine is virtually absent in this patch, apparently being replaced by the hematite This area merges gradationally to the normal feldspar-pyroxene assemblage

No obvious source of REE values is recognizable If these exist in this material they are most likely associated with the hematite and/or diffuse limonitic phases

Estimated mode

Zircon	60
Plagioclase	22
Sericite	trace
Quartz	12
Carbonate	6
Pyrite)	trace
Limonite)	

This is a homogenous, equigranular rock of unusual composition

The major constituent is zircon, as individual euhedral-subhedral crystals, 0.02 - 2.0 mm in size, densely disseminated through a matrix of fresh, anhedral plagioclase with sporadically intergrown quartz and carbonate. The plagioclase seldom shows distinct twinning, but its low refractive index suggests that it is probably albite.

Some of the zircon grains are of composite/skeletal form, and incorporate small inclusions of the matrix components.

At each end of the sectioned area the abundance of zircon shows a marked fall-off, and the rock becomes predominantly an aggregate of feldspar, mildly flecked and dusted with sericite.

Opacities consist of very rare, tiny specks of pyrite, partially altered to limonite. The carbonate component also tends to show diffuse limonitization along cleavages and grain boundaries.

Many of the zircon crystals have a more or less dusty appearance and sometimes show development of diffuse networks of sub-opaque to opaque material. Rarely, the original crystal structure is destroyed and converted to a fibrous/radiate form. This phenomenon represents partial alteration of the zircon to cryptolite. Rare earth elements are typically concentrated in this sub-opaque breakdown product.

The origin of this rock is indeterminate from the petrography. It is most likely a late-magmatic/pegmatitic differentiate of the syenite, in the form of a dyke or vein.

A.P.
1991

"Rite in the Rain"®



ALL-WEATHER

FIELD

Notebook No. 351

J.S. Dodge
91-001

27 May 1991

(0.5 d) Lv Porter Creek 27376 } 56 miles
Ar. Greyling Cr (Marshuk) 27432 }
Reconniter for trail
N side creek leading to
syenite shown as "Eg" on
map 1093A

28 May

(1 day)

See traverse 105-D-08

Andesite flow, tuff, agglomerates
Gneiss halo around SE end of
leucosyenite. Gneiss is banded
& phlogastically folded - qtz, musc
and hematite alternating bands
1-2 cm wide.

Leucosyenite - 90% coarse microcline
+ xla and 10% mafics? may be
hornblende or biotite (phlogopite?)
thereafter. other black minerals
could be allanite - not magnetite

29 May

Lv Greyling Cr. @

23432

arr Big Cr. via Canal Rd 23549

Examined float boulders - found one

mafic syenite 60% Biot/Amp³² 30%⁺
feldspar (not plagioclase).

30

Lv Big Creek

22549 m

arr Westlake

via Pass Pass

Carmichael 23903

549

354 m

Staked LANCER 1-8

clo. covering REE and

Uranium property at

headwaters Katsa River

W. Trans North Helipad

*662, 54

Examined syenite float @
bridge abutments @ Bearfeed
Creek on Campbell Hwy.

3 1/2 days (27-30 May) four-fold
field trip - (a) verify presence and
type of syenite present E of
Marsh Lake and a Bearded Creek
(i.e. leucocratic or melanocratic)
and (b) staking the LANCER 1-8
quartz claims covering the
abandoned REE/Y occurrence
(formerly NOKLUIT) at head of
Ketzia River 105-F-08 south
of Ross River.

Syenites in (a) above are
both leucosyenites. However,
the Marsh Lake syenite is coarse
grained and has a higher %
of mafic minerals Biot & Hbl. This
syenite has a possibly interesting
contact aureole with enclosing
volcanics. Detailed prospecting
is planned; no claims are in
good standing in vicinity of any
of the syenite bodies as mapped
by ESC.

(b) LANCER claims appear to offer exploration target for not only Rare Earths - but for (Y) Yttrium which is particularly sought after now. Assessment report # 090577 - 15 Jan 1980 revealed hi Y assays in 4 samples but text did not make reference to them - perhaps unaware of what could be ore-grade, etc. Recent discovery of Yttrium + Zircon in New Mexico by Molycorp reports 24 MITa 0.18% Y_2O_3 (= 0.11% Y) and 1.2% ZrO_2 . The 4 samples above are equal to or greater than Molycorp's deposit. As soon as snow melts off north-facing cirque will commence detailed geological mapping and prospecting of claims and surrounding area. Could see a 4x4 trail ending at bullroger cuts on former KETZA claims perhaps 1 km to northeast of LANCER claims - should offer cheap access for prospecting to area.

27-30 May Period

Groceries, Profenna,
Naptha, first ped,
OFF ammunition,
garbage bags

3.5 Days

Subsistence $3.5 \times \$52/d$ \$182.00

Transportation

4x4 23903 m

23376 m

$527 \text{ mil} \times 1.6 =$

$843 \text{ km} @ 38\$/\text{km} =$ \$320.00

Helicopter - LANCER CL. \$662.54

Does not include telephone,
maps, office supplies,
assays, mailing

31 May

Recorded LANCER 1-8 CL.

8x \$10

\$80.00

Partial Total Reimbursables (\$1,244.54)

05 June '91

Day

7 am
 LV. Porter Creek 23,940

Arr. Marsh Lake

turn off
 2 km S of Lakeview
 Marina 23,985

45 miles

Prospected trend of float of
 Listwanite first noted on previous
 traverse across YUDA 4) claims.
 Bulldozer stripping & trenching had
 been done (1990?) 200 m to west
 on Limestone gossens in chert & phyllite
 on 2 knolls at E edge of agricultural
 clearing - no listwanite noted in that
 area.

Bedrock near-blank float of listwanite
 noted in a NW trend 1-2 m wide and
 at least 200 m long - no physical
 work has been done along this zone
 which lies approx parallel and 50 m
 east of the easternmost N-S boundary
 (bulldozer cleared & surveyed)
 of agricultural tract.

Claim posts for YUDA are ca. 15 m
 NW of ~~the~~ survey peg @ NE corner of
 agri tract.

05-06 cont'd

collected 8 kg of samples for assay - Au, As, Sb etc.. Although showing is on WDA claims which are probably still in good standing, i.e. lasing having been done since 15 June 1990 staking, the is possibility could interest claim holders in optioning ground, if encouraging Au values detected.

Light rain showers early evening.

0/6 June

1-Day

+4°C a.m. - partly cloudy, light south breeze. Bush still wet (6 am).

Traversed NE to 3100' alt. where encountered syenite and its alteration halo of banded hem / qtz / feldspar rx. In places - NE direction andesite (?) has been altered to listwaenite-like replacement zones - heavily limonite coated. Some pyrite noted in syenite in border phases. No broad zone of chilled border - only perhaps 2m wide and then a megacrystic "alteration" so to speak.

Collected 10 kg various types for microscopic viewing before selecting specific specimens for assay.

Noted staking claimant and an occasional blaze - evidently the Bronco 1-10 claims which have been cancelled. Unclear what was impetus for staking these claims - unless there was a radio metric anomaly. No Quartz or barite noted - although later might be evident only during microscopic and tests of specimens displaying white striae.

Must check of running recorder re any assessment report.

06 June (Cont'd)

Syerrite zone examined over a length of ca. 200 m and width of ca. 60 m - these include contact zones. Do not expect to return to area unless assays are encouraging.

First day of flies - appear to be reddish deer flies - usually no problem until autumn. The odd mosquito.

NOTES:

07-06-91

1 Day

Steady rain 3 am - 9 am

Returned to syenite outcrops for more samples of syenitic metavolcanics (apparently flows or tuff beds - perhaps intercalated into gneissic appearing mass).

Returned mid-afternoon and used microscope to aid in selecting 2 samples of syenite for REE, Y, Zr analysis. Packed up 2 samples + 2 samples of leucosyenite for airmail to Chemex Labs in No. Vancouver.

met Mr Ona - farmer/prospector who had syenite staked (now lapsed) evidently for gold possibility in gneissic shear zone

Lv. Marsh Lake

24030⁵ m

Over Porter Creek

23985

45 miles

western boundary of syenite (no Au).

104
36
/20

10 11 12 13

23 June 1991

up to 18°
Sunny thunderstorms

L.V. Porter Creek : 24045

ATN Nesitlin River Washoff -
on South Canal, Km 65 24186 141

Telephoned Watson Lake Flying Service -
Ice off Little Fyre Lake
W. Hyde & Johnsons Crossing
4 Chm posts Beaver lumber

14 June - [+7 up to +18°]

1 Day

On road @ 5 am - reached Gante
property on No Canal @ 435K by 11 am.
Prospected lower timbered slopes below
transverse bedrock @ 160' (52 m) vert
above No Canal Road and approx 150 m
horiz. north northwest of road. Located few
pieces bante in turf and after returning
with grub-hoe confirmed new discovery of
bedrock bedded bante - not as sugary &
bleached as exposed in bulldozer cuts
much higher on slope. This bante comprised
8-10m thick bands of dark grey and
light grey bante - very little graphite on

Belting glaucous or x-cutting fractures.
Because of its apparent high grade 4.20⁺ spm
and proximity to McCarroll Road, staking
of the area appeared warranted. Returned
to truck at 8 pm

24 410
24186
224 mi

1 Day

15 June 1991

Staked 4 LYNX full claims as a
re-staking of the SPAR claims which
had lapsed on 12 June 1990. Formerly
this was the MOOSE claims property.

Interestingly, a fine-grained (chilled)
vertical (or at least steeply inclined)
dyke of intermediate composition was
noted when it cuts heavily brecciated
amphibole horizon which overlies the
west limb of the granite deposit.
approx 50m south of Pools No 2 of
LYNX 3 and 4. This is first evidence
of the proximity of an underlying
intrusive that had been postulated

as the heat source responsible for 'bleaching'
[i.e. drawing out carbonaceous material
in the normally very dark grey bedded
bante of Selwyn Basin] of this bante
deposit.

- 4 additional shallow ^{20cm} pits were grub-
bed to begin to get some feel for the
possible width (bedding thickness as
dip appears quite steep 80-85 East) of
the 'new' showing on the lower part of
LYNX #2. All pits exposed bante -
approx 15m of "true thickness" was
evident, but much more trenching -
and for a gravity survey ^{needed} to test
strike continuity, under a thicket of
cedars. Returned to Road 6 ^{30pm}.

16 June 1991

Lv. LYNX claims on No Canal Road.

5 am on road

24410

via Pass River, Carmacks - Porter Creek

Arrived 7 pm

24783 } 373 miles

~~288~~

~~1978~~

141

224

373

738 mi = 1190 km

18 JUNE

LV. Porter Creek 12³⁰ 2478.3

Arr Watson Lake 9³¹ pm 2508.0 } 297 mi

+ 26
323

19 JUNE

Notarized signature re LYNX 1-4 & mail
applic + \$0 to Mayo.

Picked up Chain Map 105-16-08 re staking
of Places-Domes FIRE cls - 31 Dec 90

Watson Lake to Float Base Watson Lake Flying Serv

25080 → 25086

Fire fighting helicopters needed fuel

freighting by W.L.F.S.

25086 ↔ 25096 dinner Watson

20 June

1/2 day

25096 ↔ 25106 Bkfst Watson Lk

Departed 9 am in Beaver for Sheep Lake

Arr 10:15. Saw Places-Dome camp
east side Fyre Lake.

Set up camp.

Standby

21 June - Fri - Found large snowbank still covered most of the above-timberline areas west of the Sleeper Claims. Consequently postponed prospecting in that area for a week or so. Instead re-examined nearby below-timber prospect pits on Sleeper claims 5 and 6. Noted additional garnet-sulfide schist in overburden of pit @ D+70E.

Standby

22 June ^{16°C} - Visited steep-sided gully on Sleeper 9 just at timberline but, although snow melted elsewhere - the gut was chock full of icy snow - mostly as a tunnel since melt water was pouring through. Noted, however, the surprisingly rapid oxidation of sulfides that had occurred since 1989 on the dumps from 3 test pits which had exposed garnetiferous biotite schist w. FeS₂ and CuFeS₂.

Afternoon spent ^{12°C (Smoke to SE)} traversed upper talus slopes leading to base of serpentinite on Lady Lee #1 claim in search of float as further confirmation of suspected source of arsenical gold float from 1990 geochem. Source most

Probably the drusy, qtz -healed qtz -argillite breccia in the thrust plane between Nesutlin and overlying Anvil allochthons. Several small bedrock exposures located 30m downslope below chloritic argillite exhibited weakly limonitic, massive white qtz and interfingering black argillite; probable nearly horizontal attitude suggests a sill-like body in the thrust plane - no breccia evident in these large boulders.

(1 Day)

23 June Sun. (see claim map for traverses during 23 → June), Hail N of Clear Lake

Prospected by way of contoured traverse extending east from bank above main creek draining broad cirque valley 2 km to northwest. Found only glacially dropped boulders of qtz -monzonite - presumably from stock 2 km to west. Had seen snow above and noted snow clear of Lady Lee etc.

24 June 20°C snow (1 Day)

Examined talus float immediately east of Lady Lee #1 and #2 looking for qtz breccia, but found only qtz -argillite boulders weakly Fe₂O₃ stained - no breccia.

25 June - Tues ^(1 Day)

Returned to prospect slope east of Lady Lee #3 and #4 but found nearly all float covered by turf - except for several small (6-8 cm) sized pieces qtz-argillite.

26 June - Wed. ^(1 Day) smoke, 18%

Decided to sample the boulders in talus trains below the east end of Lady Lee #1 and #2 claims. Brought back 12 kg for gold-arsenic-antimony - since some pyrite noted. However, not too optimistic since no 2-stage stibification through fault brecciation.

27 June Thursday ^(1 Day) Lightning 20°C

Smoke to southeast in a.m. Returned to fast moving creek west end of mtn. North across Clover Lake from camp (as on 23rd). Climbed to timberline and traversed easterly contour a timberline. All float - and that was qtz-muscovite schist of "upper" Visitation allochthon. No surficial in scattered sites of float.

28 June ^(1 Day) Frost

19-20° Snocks to SE in a.m.

Prospected on sub-crag terrace well above timberline on mtn. NW of camp and although evidently was see gtz-musc schist of probable "upper" Nisutlin - did not note any sulfides. Remnant pieces of dark hbl-gtz schist of lower Smol occasionally scattered during erosion of Smol.

29 June 15° Clear (1 Day)

Prospected timberline talus slopes below nose of high ridge 2km west of camp, i.e. 1500-3000 feet west of Sapper class block. After encountering talus of large boulders of gneiss with probable gtz monzonitic composition (probably underlies Nisutlin) returned above timberline and by mid-afternoon had found 2 small pieces of slabby gtz-seric schist hosting dissem. pyrite.

(1 Day)

30 June Sunday

Returned to continue appraising the seven tables from and succeeded in turning up 10 large slabs (e.g. 40cm x 80cm x 10cm) of Nisutlin schist with sulfides (mostly pyrite but some chalcopyrite). Several slabs contained clove-tinted garnet porphyroblasts identical to those from the base metal-bearing marker horizon on the Sleeper claims. Still so far only float here.

(1 Day)

01 July Monday

Decided to prospect base of cliffs below west side of Sleeper 4 and 11 claims, since although I had (in 1989) focussed my attention in search for U₆ float - now I thought there might be sulfide-bearing schist float - this being between the 2 mtns. having the garnet-sulfide-schist areas. However all float poking through turf and brush cover was of the Tertiary volcanics (rhyolite-basalt) capping the Anvil Allochthon.

02 July (1 Day) Mon.

Prospected again in the valley floor between the 2 mtns and once more all float was of volcanics - no Musutlin, or for that matter Anvil rocks seen.

03 July (1 Day)

Prospected along Lumbertine west side of valley along east flank of mtn the north nose of which sourced the talus where sulfide schist slabs were found. Outwash of springs provided fresh float all of which was chlorite-hbl-gtz schist evidently from dark-weathering Anvil Ocellotite. Viewing the steep hillside it could be seen that at least a 500m thickness of Anvil schists underlay at least 500m of Musutlin with inclinations of schistosity about 50° up to north. Thus the area for detailed prospecting narrowed down to rugged north nose of this mtn above talus slopes.

04 July (1 Day) Rain showers

Worked way up the now-dry coulees searching for bedrock source of garnet-sulfide schist present in talus. Although found several small slabs in coulee about 50m elev. higher than ^{head of} main talus train - no bedrk.

05 July (1 Day) Very showery.

Continued combing cliffs farther (100m) to west (flipping each individual piece of sulfide slabby schist) and found only spotty gytic gossan patches - no site characteristic of the talus slabs. Evidently the massive horizon lies higher on the mountain.

Standby

06 July } in camp while rains poured
07 July } down and waited to show

Placer-Dome around Sleafol Co, but helicopter connections were not made so no exam took place.

1 Day

08 July Rain shower.

Made one more traverse high (1750m altitude) on nose of mtn but no certain sign of slab sulfide horizon, although several limonite stained qtz-musc schists were examined without encouragement.

Returned to base talus traverse and collected grab chip samples from sulfide and garnet-sulfide slabs for assay - about 15 kg back to camp late

2 days

09/10 July Rain, at times heavy.

Staked Sleeper 15-20 claimers tied on to west end of existing Sleeper group. Blazed & staked lines

11 July - picked up 11am by Rob Watson Lake Flying Service - Reddy returned to Watson Lake and drove back to Whitehorse

17 July 91 Wed

Lv. Porter Creek @ 25409 miles

via South Canal to Campbell

Hwy East to Ketzia Nieme

turnoff to old airstrip then

4x4 up to timberline head of

Ketzia River 1500' E of LANCER

sls @ 5100' elev 1560m

c 25702

} 263 mils
293

①

shown in afternoon

18 July 91 Grey wolf, Rain-drezzle until noon.

Traversed lower slopes of LANCER 7 on north trending ridge. Talus from volcanics approx 2x background.

19 July Fri

Rain all day - drizzle to heavy w. wind. Traversed southeast shoulder of mountain up to 5400' altitude crossing Al_2SiO_5 -phyllites upper 150 feet overlying gtz-gach-filled ls of Devonian?

One small boulder of jagged - finely crystalline sulfides in 2nd generation white gtz stgs 1 cm wide.

20 July Sat

Dense fog until 1 pm - then rain until 3 pm.

Climbed east face of mtn. to contact between black phyllite and overlying layered syenite flows. Evidently contemporaneous interfingering of phyllite & syenite, since phyllite float is prominent in talus above this contact zone.

21 ⁽¹¹⁾ July Sun. Fog until 10 am.
Barometer way up - partly cloudy.
Climbed to ridge of mtn - up from
5180 (camp) to 6400.

Prospected ^{4000m} along ridge but unable to
visually find Site 6 of NOKLUIT report.
Brought down 2 specimens from a
qtz stringered tan syenite band (4 m
wide) gave 2-3x background on
spectrometer. Will return with
instrument.

Surprised to see several fine grained
black, dark brown to black, metasomatized
black: ~~phylite~~ along ridge. Some breccias
with up to 10 cm sized subcubic black
phylite.

Number of NW trending pyritic
veins? in syenite - pyrite forming rings
along outer border of vascules. Some
galena, and a brown (non-magnetic)
tabular to cubic shape - ilmenite?

22 July - Monday - clear until 8am then

circus cloudy - barometer still climbing. Strong S wind. 2 very tame caribou - within 30'.

All sample bags marked as 21 July are for today rather.

radioactive ^{up} one. Large bedrock (?) mass 75cm wide 30cm hi and more unexposed e about 6100' alt. Followed up to ridge where "Site 6" dyke outcrops e 6420' and on which LANSER 5/8 - 7/8 posts are implanted.

Dyke is dun colored - with a dark grey portion on the east side. Consequently narrow 0.5-1cm qtz stringers in an unidentifiable matrix - will need Van Petrographer's report on dyke as well as black rx to west and tan rx to east. Saw no magnetite or purple fluorapatite as reported by NOKLUIT. Saw dark qtz mainly in float down S slope. Radioactivity 4-20x background. Suggest dyke appears to be more closely 4m rather than 6m wide. Apparently dips 80° to west.

The "magnetite" of NOKLOIT may be in reference to rather tabular (1 cm wide to 3 cm long - thin 0.5 cm) black mineral - $H = 6+$ may be very fine grained aggregates - will have Van Petrov report on it. Radioactivity is dominantly uranium and not thorium.

①

23 July Tues - clear until afternoon when crisis developed. $> 20^{\circ}$

Into valley headwater courses of Malya River. Found 71% of wide talus display as being anom. hi radioactivity - up to 30x background in some boulders m^3 in size.

Characteristically gtz stringers in due to dark brown fine grained sherm. Purple feldspars, pink & white feldspars, minor magnetite. Often gtz is nearly black - matined from gamma radiation of course one needs to learn

whether REE/Y/Zr are to be found only where there is radioactivity or are they also concentrated in other rocks in the aureole of the syenite hypabyssals. Back by 7pm

Will return tomorrow to examine ~~dark source of float~~ - now looks like the ridge dyke may tie in to the source of the talus float (maybe 5400').

24 July Wed. - Warm Pthly cloudy
Found battery of pickup stone dead
why? Now what?

climbed talus slope to bedrock cliffs ^{5600'}
and located 2 highly 10,000' cap radioactive
outcrops 8-12 m wide. Obviously
part of same 110° - 120° vert dyke over
40 m and "open" up into dangerous
climbing area - most likely this zone
is same as on ridge. Host for
6-10 m E side is very dark brown,
fine grained skarn; W side 2 m is
sheared buff skarn. Non mineralized
walls are greenish yellow chert-like
skarn - perhaps I see relics of
iron-rich filled vesicles?

Had time for brief exam of syenite float from intrusive. Dark, medium to megacrystal syenite; creamy white, fine to coarse grained syenite. Light syenite is usually $1\frac{1}{2}$ -2 \times background (allanite?). Will return tomorrow to reconnector syenite plug & see relationship of dark to light syenite.

⑧
25 July

Rain until 9am. Walked back 3km to put up notice re dead battery.

Sorted samples for assay and for petrographic descriptions. Reviewed literature on REE with view to deciding what best approach to sampling additionally in vicinity of NE-trending syenite mass (dike?, plug?).

Does altitude of bedrock dike (yesterday am.) and that of syenite

- have any genetic implications.

Because of hazards of steep cliffs and loose talus slopes - perhaps a careful chip sampling of large talus pieces (say, > 20 kg) of the dike material would be a fair representation of the dike, including exposures between the 2 dike bedrogs visited and the ridge crest dike. Eg. - talus samples collected on a.m. of 23rd could only have come from dike outcrops much higher than the 2 exposures I examined.

① 26 July Fri Partly cloudy am.

Barometer plunging rapidly. Rain began at 3 pm continued unceasingly throughout night.

Returned to talus slopes east side of syenite plug - found slab of chlorite. Stann - radioactive 3x background. with tiny bladed grey crystals - appears to be bastnaesite - will send to Vancouver.

More coarse grained dark and light syenite - unable to climb plug as rain

had begun & rocks became slippery around
2 pm.

(1)

27 July - Sat. Barometer ultralow.

Steady rain last night and all day
with $\frac{1}{2}$ break at 6 pm (when cooled).

Becoming concerned about getting out
once can find way to start truck. Perhaps
will have to find way to pull truck over
to a little hill & hope to start on the roll,
but hill is only 30 meters long.

(2)

28 Sun - persistent rain all day
except for break 5-6 pm.

Barometer starting to rise weakly

@ 8 pm.

(3)

29 Mon Barometer way up -
dense fog until 9 am.

Trekked into cirque again to
consider significance of earlier
observations that gtz stringers
2-15 mm wide in Radioactive REE
dikes are usually vertical and strike
crosswise to trend of dike, yet don't

extend into either skarn wall. Hopefully petrographic report will indicate relations between stringers, REE and dike mt.

⑩

30 July - showers - at times heavy
Extended the radiometric scan west along the lower, south-facing slopes of the main mtn. No significant anomalies in the buff-weathering weakly stained siltstone vesicular flows. Up to $1\frac{1}{2} \times$ background - possibly allanite in scattered areas.

31 July - 01 August

Travel - walked ^{13 km} out to Canamay mine road to seek assistance for GMC pickup which has dead battery. Two hunters, using 4x4 ATVs brought battery out then drove me to Ross River

⑪ 1 am. Unable to engage 4x4 vehicle to take me back to LANCER property until afternoon of 01 Aug. when RCMP took me out. Then

drove to ... via Ross River.

25702 mi @ LANCER to

25907 mi @ Carmacks (south)

202

205 miles

02 August

Drove on from Carmacks to
Whitehorse to mail in samples
to CHEMEX and Van Petrographics

25907

26017

110

110 miles

NOTE: On 01 Aug evening stopped briefly
at Bearhead Creek to test syenite and
gneissic float at bridge for radioactivity.
Leuco-Syenite is $1\frac{1}{2}x$ background with allanite
as most likely source of weakly anomalous
radioactivity.

Spending working
for ~~the~~ - Done

06 - Sat Helicopter stops at P-D man.
Dug more on Vain Sun
Exposed float pyritic schist

BL 00 - @ +30 W @ 10 S (pm)

07 - Sun rain squalls Frost
checked Gwird geology - chert, mylonite
Reexamined 5 + 30 E area

Dug on BL 5 E - 25 W

~~chest~~
~~at₃-Bio school~~
 at₃
 at₃ must school

04 July

Found garnet-bio at₃ school
 market @ 3-pits delg E of GUT
 showing. However, sp conc are
 not nearly as high as float
 from West mtn - except for 'discovery'
 piece of musc. at school. This
 place renewed interest in trying to
 locate before source of sulfide lens
 at West mtn.

05 Rain wet wet wet

Returned to W. mtn - no luck
 saw many fawn ermine (ermine)

Silicified kistvaamite
air photo NW lineament
All as sb in samples - ^{no number} 1988 loc sb

Silicified chlor. schists +
Hubnerts? wolframite?

Could this be a Bridge River / Mother Lake
type mesothermal structurally controlled
deposit?

thick?
Stress pyritic chert overlying
trench area - as well as white
qtz underlying - and note
copper geochem 30m "up" above
garnet schist sulf zone.

Fresh
Expos
this both!

Does it also pertain to the 6.00E area?

Grubbe
of massive
pyritic
sulfide

OO Baseline

Crenulated schistosity - why

22 June Radio Conversation:

"Whether to send in the ice cream by hovercraft or the Bristol?" Send by Bristol because hovercraft would make milk shakes from vibration" Hardly a Gulag shipment!

30-06

8 Canada geese landed with a swoosh then spent 9 hr slowly paddling near shore to SW. When wind from SW picked up they formed a line equally spaced with gander at left end - 1 ~~gander~~ at right. Gander "dressed rank" and with a hoot - all hooted and took off like ~~the~~ horse racing.

ONE Found the N40W at vein
70 below Nist. Amil third -
~~cut~~ look for my, could
be up to 10 m wide one side.

Return for

03 West main

July 18, 1991

Work Order # 13241

J. Dodge
14 MacDonald Rd.
Whitehorse, Yukon
Y1A 4Z2

Assay Certificate For Samples Provided

Sample	ppb Au	ppm Ag	ppm Cu	ppm Pb	ppm Zn	ppm As	ppm Sb
LL9901	22	<0.1	15	50	230	98	9
LL9902	47	<0.1	6	16	71	139	11
✓ LL9903	✓ 186	<0.1	8	14	57	237	<1
LL9904	46	<0.1	19	27	151	93	<1
LL9905	33	<0.1	65	4	62	157	5
LL9906	29	<0.1	30	10	65	144	<1
LL9907	70	<0.1	17	4	13	32	<1
LL9908	58	<0.1	34	35	19	92	<1
LL9909	40	<0.1	13	10	14	79	<1
LL9910	43	<0.1	5	7	11	27	<1
✓ LL9911	✓ 310	<0.1	10	14	45	✓ 470	59
✓ LL9912	✓ 124	<0.1	61	17	242	✓ 683	9
LL9913	<5	<0.1	25	20	6600 ✓	203	45
S01	20	<0.1	55	540	1448 ✓	336	31
S02	<5	<0.1	1760	140	6470 ✓	244	32 *
S03	<5	<0.1	2320	300	4330 ✓	187	29 *
S04	<5	<0.1	45	10	309	206	14
S05	<5	<0.1	98	1	111	153	13
S06	<5	3.3	2340	4360 ✓	3220	217	9 *
S07	<5	<0.1	97	2410	2670	133	11 *
S08	<5	2.3	367	367	1848	197	12
S09	32	1.5	1782	28	197	112	1
S10	5	0.8	819	10	552	362	34
S11	<5	2.8	103	<1	81	236	12

Talus east of Lake Lee #2:

Talus

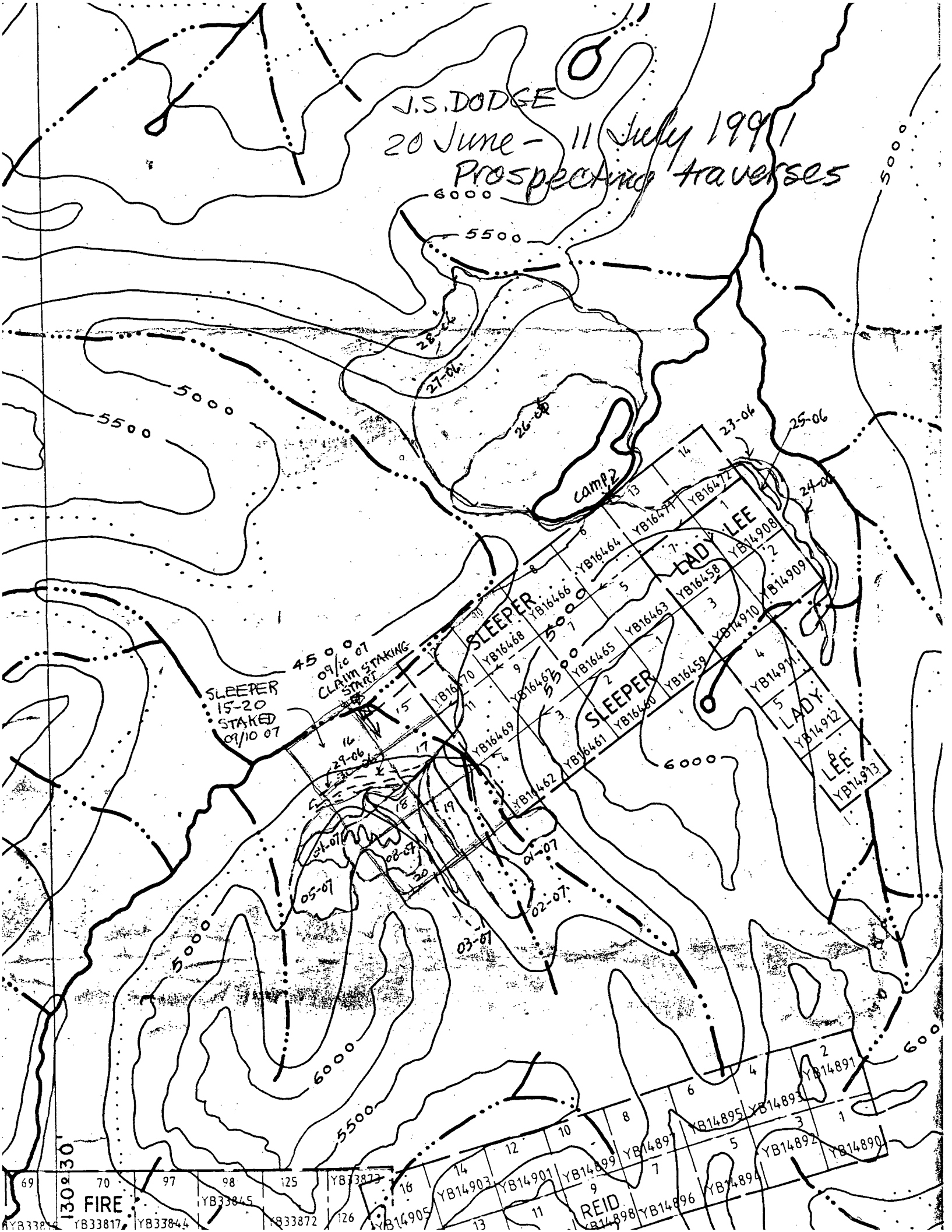
Certified by Chyokki

✓ = Fracture, limonitic white quartz w inclusions of mafic fragments (probably argillite)

* = Garnet biotite schist in talus train SLEEPER 18



J.S. DODGE
20 June - 11 July 1991
Prospecting traverses



SLEEPER
15-20
STAKED
09/10 07

4500
09/10 07
CLAIM STAKING
START

03-07

05-07

29-06

08-07

01-07

02-07

CAMP 2

SLEEPER

SLEEPER

LADY
LEE

LADY
LEE

LEE

REID

FIRE

69	70	97	98	125	YB33873	16	14	12	10	8	6	4	2	YB14891
YB33874	YB33817	YB33844	YB33845	YB33872	126	YB14905	YB14903	YB14901	YB14899	YB14897	YB14895	YB14893	YB14892	YB14890
13	11	9	7	5	3	1								

PAP 1991

"Rite in the Rain"®



ALL-WEATHER

FIELD

Notebook No. 351

J. Dodge

#2

91-001

145
86
23
254

09 Aug 91

26193 Lu. Porter Creek

26347 Ar. Ketzia River @ 11K on Ketzia Mine Road
254
via Johnson King
 $254 \times \frac{1}{62} = 410 \text{ K}$

10 Aug (1)

Prospecting downstream of Ketzia valley NE of Tintina fault zone. Collected several pieces of quartz porphyry float and noted much young basalt float from hillside to E. Traversed approx. 1 1/2 mile section.

11 Aug (1)

Retraced route of 10th - then continued NW passing bedrock exposures of young basalt approx 30m vert above Ketzia river. Continued to collect leucite frag. sheared quartz porphyry and rhyolitic tuff - almost certainly float from said unit mapped by Templeman sheet on Quiet Lake sheet. In part, are silicified and have surprising resemblance to Grew Creek ^{Area} outcrop mineralization. At approx 2 1/2 miles (4K) downstream collected a

sample bag full of sheared, FeOx. chertite specimens (float) for assaying and returned through fine downfall to Ketzia Mine road.

Ketzia
Thurs

15 Aug. LV. Ross River 266.19 mi
2³⁰ pm Arr Lynx-No Canal 267.75 mi }
8 pm

125 mi = 201 km
31 m = 50 km

16 Aug. (P) Fri sunny all day + 15°C

Detailed exam of float along Canal Rd northwest shoulder & ditch revealed unexpected several large 5-7 kg and many smaller 250g pieces of stratiform banded - @ 420-130 m West of staking line of LYX 1/2.

Two quick geol. pick pits against cut made by bulldozer during construction of Canal - yielded up to 1 kg sized float & many small 150g pcs.

This is an elevated site where Canal makes a sharp climb from a tiny brook. This may likely be a baffle showing quite separate from the main zone on the LYNK. Noteworthy, too, are several 2-5 kg pcs of heavily limonite stained, ^{wavy} banded pyrite 1-2-5 mm thick in nodular baffle and pyrite lenses in argillite which has ^{many} fine 2 m x 10 m lenses of strike-aligned baffle. All of this augurs for possible Pb/Zn host - of Maclean Tern / Mason type. Freshened up 1 test pit on lower LYNK baffle bed.

17 Aug - ① Sat sunny a.m.; showers p.m. +10°C

Continued digging pits near Canal Rd, and recovering chunks of baffle up to 15 kg, so very little doubt that material is from a nearby bedrock source.

Surveyed location of pits from staking line and truck park; also paced back from nearest (2000+) km marker post C 434

Discovery Day

Placed claim tags on all posts - 2 hrs.
and continued hand pitting of bedrock
bante part way up hill - now seems
deeper (based on dip/strike) that the
"main" (or best quality) bante horizon
anyway will - upon projection - cross
under Canal Road where the morning's
pits were deep!

Dug 3 places above the "road" pits
and after going through 75-90 cm of
orangish wood rot & black soil - hit
permafrost. No permafrost at the
"road" pits because bulldozing during
road construction exposed frost.

Appears that will have to bulldoze
or take some gamble on drilling site.

①
18 Aug. Sun

Completed the 4th & 5th test pits
(1.0-1.5 m deep) on lower slope -
bante bedrock exposed sufficiently to
determine strike and dip (some
allowance for near-surface creep to be
required - perhaps 10° - 15°).

Recon. Canal Rd ditch farther west to see if any bante float which might possibly identify presence of west limb of anticline - nothing seen although gently sloping terrain would likely inhibit much dispersion of float.

cut survey line up from Canal along staking line to vicinity of 5 test pits (passing $\approx 20m^2$ east of them)

Gathered an additional 10 kg of bante samples from 2 test pits in ditch of Canal.

Rain during night

19 Mon (1) Barometer very low (new snow @ 2500m) - right on "schedule" for MacPass

Dug pits #6 and #7

Took photos of #1-5

(see separate sheet)

Compass & topo. survey of pits, attitude of bante $\pm 325-330^\circ$ $dip \leq 9^\circ$, topography of site indicated on sketch
Sampled each pit $\pm 2kg$ each.

Using hip chain brought claim staking line to Canal Road with inclined distance of 722 feet at point 50' E of #7 pit.

Reconfirmed that in the upper of 2 bulldozed trenches on nose of hill - barite layering is $\approx 330^\circ$, which jibes with average strike in test pits. Now definite that Gante - if maintains this attitude - will intersect (and go under?) Canal Road near where 2 test pits were dug on 16/17 August.

Should claims in Watson Lake Mining Dist. be staked (SE of Canal Rd. boundary between Mayo and W.L.K.?) Looks very problematical that digging on trend SE of Canal will be successful re. thick o.b. and permafrost?

Gravity meter would be excellent geophysical guide to trace extension.

20 Aug Tues. ^{P snow on peaks} during night.

Cut SE end of staking line in preparation for geophysical survey. Extended claim line to location

16:00
16:05

of No 1 Pits for LYNX 5 & 6 - this needed
as area southeast of Canal Road (where
projection of barite appears it may extend)
is in Watson Lake Mining District.

Collected more samples from 2 pits
alongside Canal Road for assay, crushed,
beneficiation tests.

21 Aug ①

Enlarged & deepened the 2 pits
alongside (NW side) of Canal Road.

Collected an additional 10 kg of
barite samples for lab analysis.
cleared brush on survey line to
LYNX 5/6 claim pits.

22 Aug -

Drove to Whitehorse from 435.2
via Caribou - 12 hours (with
stop at Drew Creek to collect
specimens of rhyolite por/tuff
gold host r.s.

26775 → 27169 miles

Period 09-22 Aug 8 field days

04 September Wed

L.V. Potter Creek @ 27245 miles
via Ross River where called

Vancouver Petrographics re laser samples
at steep trail (4x4) to laser cls
@ 27522

05 September Thurs

1 Day

Struggle to get up last 1/4 miles to
laser claims. Began carrying claim posts
climber yard, dried wood by pack frame
up 250m from 4500' elevation

1 Day

06 Sept. Friday

Staked Lances #9 and #10 in rain.
Some blue patches in p.m. - carried up
more claim posts to 5100' elevation. Surprised
to note that @ Post No. 1 of Lance 9/10
the Mississippian volcanics dark brown,
were laced with narrow (1-2 cm thick)
quartz stringers generally steeply dipping
both parallel to a shear zone ca 90° $N_{30}E$
and 0° $N_{30}E$. Zone > 4m wide. Selected
samples to run by a scintillation counter. Much
resemblance to ridge showing although not the
medium brown. Raining - no ^{quartz} fluore noted.

07)

07 Sept Sat

1 Day

Staked Lance #11, 12, 13, 14 after end of
morning rain (9am). Packed up additional
claim posts.

Bk shale - phyllite on cliffy slope.
100m E of No. 1 Post for 13/14 strike 130° dip
 40° W.

1 Day

Sep 12 Thur

Traversed south flank of main mountain where silicified syenite volcanics outcrop underlain by black slaty horfels. Foot also contains some cream colored skarn and dense fine grained, equigranular black "skarn" or dike rock. Saw similar rx as taken below main syenite plug - could be dike material and may have zircon - although not contain w. field hard bones. A few fine pyrite spots.

at west end of valley - at headwall of cliffs comprising OS qt_3 -masses in contorted phyllite - partially meta to slate. Staked corner #21 with No. 1 post against cliff 30m short of ridge line.

On return noted numerous spec. float of qt_3 -laced tan vein material in scree below REE-bearing rx5 on ridge - had no scintillometer to reinforce that assertion.

No coarse, cream-weathering, massive dolomite - seen only on N^W side of syenite plug - odd stratigraphic interruption; yet the dolomite doesn't appear intrusive as

at Mt. Pass Calif. will need detailed
field mapping after prep of topo map of suitable
scale.

1 Day

13 Sept Fri Clear a.m. - cloudy pm
w/ thin showers. Snowline @
6000'.

Hiked into cirque to inspect the
five separate talus slides for
REE-bearing float. Clearly indicates
that the REE vein crops out
among the steep-walled castles
of the cirque for a strike distance
of $> 200\text{m}$ - based on entry
"spillways" for REE material
cascading to accumulate in the
easternmost talus train.

Fluorite appears noticeably
common accessory w. REE in
the 3rd and 4th talus trains (from
easternmost slide).

Relocated sizeable chunks of
zircon-rich, meta-gneiss in course

Folios beneath north-facing cliffs
of the syenite plug - appear similar
to earlier samples that ran 278,000 ppm
zircon and 2200 Yttrium.

Packed out 15 kg ^{ppm} samples.

14 Sep Sat Snow showers - hi wind

Carried climb past 4km above timber
line to establish Post No 1 of
LANCER #21 at headwall of valley on
south side of cirque-mtn. On return
- with trip-chain flagged location for
Post's No. 1 of LANCER #22 and #23.

150m NE of Post No. 1 site for #23, in
gully, noted fine grained, meli-syenite
intrusive into black slate \rightarrow 10m wide
trending $\pm 80^\circ A_2$ and adjacent to its NE
edge ($\pm 90^\circ$ dip) a carbonate mass
> 10m wide appears // to dike and
shows "intrusive" contact with slate
wh's foliation is 110° and $40^\circ NE$.
Still uncertain if this represents a
carbonatite (obviously a possibility in
view of common assoc. w. syenite centers)
Will return next season with grabase to
make positive determination of relations.

(1 Day)
15 Sep Sunday

Dense, low fog all day -
visibility 100m @ 5000' alt.
was unable to revisit south
valley for continuation of staking.
2cm of snow in am. melted off
by noon.

1 Day

16 Sep - Monday

Packed 1 set of chain parts for LANCER #23 and cut parts for #24 in timber in valley.

Sketched switchbacks of bulldozer trail on LANCER #9

Was impressed by relatively frequency of distribution of REE-bearing vein material in grassy talus some 700m downslope from ridge outcrop of main REE vein. Some chunks 70cm on a side. Began to wonder if the vein might have sub-crops considerably below ridge on this south side of Cirque-North.

4 1/2 Day

17 Sep

Reclaimed tools, etc. from site near cirque and packed back to pickup (3 1/2 km) where had camped to avoid deeply rutted (4x4) mud trail.

Drove to Whitehorse via Ross River in pm.